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JUST SUSTAINABLE INNOVATION: FROM GOVERNANCE AND REGULATORY EXPERIMENTALISM TO IMPACT DEVELOPMENT AND INVESTMENTS

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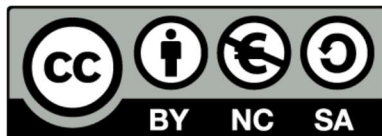
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EDITORIAL
 JUST SUSTAINABLE INNOVATION IN THE AGE OF
 EXPERIMENTALISM AND IMPACT
*Christian Iaione**

Crises spurring from climate to geo-political to social and technological threats, as pointed to by Morin and Kern, who coined the term ‘polycrisis’, and by Rockstrom et al., who conceptualized the ‘planetary boundaries’, call for innovative regulatory and governance frameworks. Such interventions are needed to address the multiple unequal and unjust consequences of such crises. The effects of such crises are indeed often unevenly distributed across regions, sectors, and society, as pointed out by Dawson.

The European Union (EU) recognized the key role that innovation and sustainability can play in solving societal challenges by embedding the principle of “sustainable innovation” as a principle that should guide public investment on innovation. The principle became a cornerstone of the main EU research and innovation program and regulation, Horizon Europe.

Building on relevant scholarship - represented *inter alia* by Iaione, Al-Jayyousi et al., Mazzucato - we posit the relevance of the social justice dimension of this principle, which is essential to make the technological and ecological transitions more just. We encapsulate this reflection with the concept of “Just Sustainable Innovation”. As a matter of fact, the recipes capable of amplifying the magnitude and accelerating the pace of the crisis response needed seem to rely on approaches that consider civic collaboration and civic empowerment, as their main ingredient.

Throughout this special issue, we aim at further developing and disentangling the concept of Just Sustainable Innovation along two axes: the dimension of governance and regulatory experimentalism that is essential to ensure that innovation can flourish and be shaped by justice considerations (Part 1); the operational dimension of impact development and investments which is crucial to assure the means that innovation needs to create long-term change (Part 2).

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We explore these two axes through an interdisciplinary methodology, shared among the contributions, that relies on comprehensive literature review of legal scholarship and other relevant doctrinal sources, policy and legal frameworks, and case studies related to just sustainable innovation and the possible solutions for its governance and investment.

In Part 1, we collect studies on regulatory, and governance experimentalism read through the so-called WEFE (Water, Energy, Food and Ecosystems) nexus. In this section, our guiding theoretical framework is inspired by studies on governance experimentalism - especially those community-based mechanisms involving various stakeholders and adopting a capabilities approach – drawing on the work of Ostrom, Nussbaum, Sen, Mazzucato, and Carayannis, *inter alias* – in order to design and test public-private-science-social-community partnerships to manage critical infrastructure, resources and services, as posited by Foster and Iaione. We also build on literature on regulatory pluralism and regulatory experimentalism (e.g., the work of Gunningham, Sinclair, Black, Verbruggen) and on the scholarship advancing the study of transnational administrative law and comparative legal analysis (e.g., Auby, Della Cananea, Bartolini, Boscolo, De Lucia, Chirulli, Ferrari-Zumbini, Conticelli, Eliantonio, De Bellis).

Further, Part 2 collects studies on the new corporate governance model tailored to achieve the goal of stakeholderism, new tools and paradigm of sustainable and impact finance and multistakeholder partnership for sustainable impact development. In this section, our guiding theoretical framework is inspired by studies on corporate purpose – drawing on the work, among the others, of Mayer and Deakin – to explore how governance structures can embed stakeholder value and sustainability. We also rely on Stout's critique of shareholder primacy and Tirole's contributions on aligning private incentives with public interest to investigate mechanisms for balancing profit-making and societal objectives. In addition, we consider critiques of law and development, particularly those advanced by Davis and Trebilcock, and build on impact-based investment frameworks (e.g., drawing on the work of Eccles, Serafeim, Edmans, Consolandi, and Amaeshi) to propose actionable approaches for measurable social and environmental outcomes. Finally, this section benefits also from the stream of literature of Ostrom and Black on commons and

decentralized governance and on literature on multi-stakeholder partnerships.

We build our contributions on enabling legislative instruments at the EU level, such as Regulation (EU) 2020/741 on Minimum Requirements for Water Reuse; Directive (EU) 2024/3019 concerning urban wastewater treatment; the amending Renewable Energy Directive (EU) 2023/2413 which enables EU countries to promote energy communities; at national level, for example Article 36 of the Italian Law Decree no. 2020/76 which fosters technological innovation in the public sector; the legislation and constitutional case law on the so-called “community enterprises” (d.lgs. n. 112/2017 - “Revisione della disciplina in materia di impresa sociale”; d.lgs. n. 117/2017 - “Codice del Terzo settore”; disegno di legge n. 1650 - “Disposizioni in materia di imprese sociali di comunità” Italian Constitutional Court ruling n. 131/2020); as well the Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (SFDR) that establishes requirements for financial market participants and financial advisers to disclose sustainability-related information, including environmental, social, and governance (ESG) aspects, to enhance transparency and comparability for investors; Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (EU Taxonomy), that provides a framework to classify environmentally sustainable economic activities, creating a common language to support sustainable investment, and amends the SFDR to integrate the taxonomy; the Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (CSRD, that updates corporate reporting obligations to require comprehensive and standardized disclosures on sustainability matters, including environmental, social and governance (ESG) impacts. It introduces the principle of double materiality, mandating companies to report both the impact of their activities on the environment and society, as well as the financial risks posed to the company by sustainability issues, the Directive

(EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859 (CSDDD) that establishes obligations for companies to identify, prevent, and mitigate adverse human rights and environmental impacts in their own operations and supply chains, amending whistleblower and financial reporting frameworks; and more in general the Sustainable Development Goals adopted under the United Nations' 2030 Agenda for Sustainable Development.

Overall, the special issue discusses this scholarship and legislation to approach the question of regulatory and governance experimentalism and sustainable investment and governance for innovation and for the benefits of vulnerable communities especially in developing countries, situating the discussions in the context of analysis of access and benefit sharing (e.g., Sovacool in the energy sector, Humphries et al.'s in the field of agri-food innovation). Ultimately, our special issue, reviewing a variety of case studies in various domains and from various countries and contexts, aims at demonstrating that fostering new forms of multistakeholder cooperation between public, private, scientific, social and civic actors can produce multiple (i.e., social, economic, environmental, institutional, technological, health, institutional, generational and cultural) impacts thereby attracting sustainable investment. By examining the legal and policy dimensions of the governance and investment of Just Sustainable Innovation as I construed it in 2024, we aim to identify effective strategies and regulatory frameworks as well as fair access and benefit sharing mechanisms that can facilitate investments on just sustainable innovation.

The studies contained in the two parts of this special issue are interdisciplinary and include the voices of both experienced and emerging scholars from the Global South.

In Part 1 on Governance and Regulatory Experimentalism, we underline how the management of water, food, energy and ecosystems-related resources today is plagued by conflicts, also due to the scarcity of these resources. This fact is testified, for example, by the presence, at national and local levels, of a conspicuous number of judicial conflicts and legal uncertainties concerning water and its management. Addressing such conflicts and uncertainties calls for a cooperative approach that surpasses the

limitations of nationalistic and privatized management paradigms. Faced with mounting socio-environmental challenges in the field of the WEFE Nexus, governmental actors, researchers, businesses and civil society often mobilise to develop innovative solutions exploring forms of regulatory experimentalism, participatory governance approaches and novel partnership arrangements. Frequently, the policy, legal and regulatory frameworks struggle to cope with the fast pace at which these innovative solutions take shape, whereas these frameworks should play a key role in steering innovation towards justice considerations.

Innovative solutions from a variety of actors and their joint ventures often fill normative and regulatory gaps, shape new modes of governance of innovation and give an impetus to policymakers and legislators in envisaging new intervention strategies, tackling such vacuums and impasses in a constructive and participatory manner. These dynamics may lead to innovation-friendly approaches and must be understood closely to be scaled up and replicated in other geographical and political scenarios. The illustrated dynamics demand a thorough analysis to be leveraged for greater societal benefits, to secure that innovation is also just and sustainable.

Against this backdrop, what role the involvement of stakeholders can play, in terms of contributing to governance and regulatory processes? How novel governance models, strategic partnerships and regulatory experimentation can benefit vulnerable communities, in the multiple ‘Souths’ understood beyond its geographical dimension? How can technology and innovation transfer happen for the benefit of vulnerable communities through regulatory design fostering institutional capacity? By tackling these and further questions, Part 1 addresses the complex dynamics underlying the governance, regulatory and partnership dimension of sustainable innovation. The section contributes to the special issue by offering reflections on the challenges and opportunities associated with governance, regulatory and partnership experimentation in the context of the WEFE Nexus.

In their article on regulatory voids as spaces for experimentation and innovation for sustainability, Anna Berti Suman, Adaeze Oluchi Ashaheme and Mohtas Anwar Modier address the complex dynamics underlying regulatory

experimentation and participatory regulatory processes for sustainable innovation in the agri-food sector. These experiences are investigated in their potential to promote a better understanding of the risks and opportunities associated with innovation, better legitimise its adoption, and stimulate responsible experimentation. The article first reviews relevant theories, such as critiques to techno-solutionism and literature on regulatory pluralism and experimentalism, and transnational administrative law doctrine, to stress the need for multiple instruments and viewpoints in shaping innovation. The case study analysis builds on the experience of the Horizon project AWARE, driving innovation in the field of aquaculture from refined wastewater through a pilot based in Southern Italy. The article also engages with a review of other case studies from the Global South shedding light on experiences of sustainable innovation for the benefit of vulnerable communities and related regulatory modalities. The 'capabilities approach' is discussed to frame the context through the lens of 'just' experimentalism in the sector. In conclusion, the article develops a reflection on way forwards that encompass co-governance approaches and a 'right to innovation through experimentalism' which entails not only access to innovation but also the opportunity to participate in shaping innovation.

With their contribution on legal frameworks enabling Renewable Energy Community initiatives, Elena De Nictolis, Alberica Aquili and Benedicta Quarcoo explore the energy transition in the EU and Africa. It deepens the research hypothesis of whether a commons-based approach can be an effective strategy to ensure energy justice and energy poverty. The contribution therefore aims to explore the potential of community-led energy initiatives, such as energy communities. Drawing on theoretical frameworks such as commons governance, co-city design principles, social justice and the capabilities approach, the article seeks to examine whether energy communities that follow such theories may be the answer. It then focuses on the EU and the Economic Community of West African States (ECOWAS), to open a vision of the North and South of the world, analysing their energy policies and deepening through an empirical analysis three case studies: Middelgrunden Offshore Windmill Cooperative, in Denmark, Melpignano Cooperative, in Italy and Bboxx Energy, in Togo. The research concludes by reflecting on the importance of

non-profit utilities, as an organizational model, for sustainable development and resilience in the public service sectors.

Marijana Krstic, Ivan Mugabi and Sofia Sabatucci, with their work on Sustainable Co-governance of water utilities companies, examine the impact and challenges of Environmental, Social, and Governance (ESG) Standards within the water utilities sector, highlighting the pressing need for sustainable governance models amid increasing scrutiny of ESG criteria. Recognizing the critical role of water management for sustainable development, as underscored by the United Nations' SDG 6, this study emphasizes collaborative governance strategies as essential for equitable and sustainable water resource management. It delves into the complexities of defining and implementing ESG standards, critiquing their conceptual fluidity and the risks of poor implementation. Starting from Integrated Water Resources Management (IWRM), through the lens of the Urban Commons and Co-City theory, the paper proposes a participatory, multi-stakeholder governance model – “Co-Governance” – characterized by shared decision-making, community engagement and equitable resource distribution. This model challenges traditional ownership paradigms, advocating for collective stewardship and long-term sustainability. The hypothesis is tested through empirical case studies of utility companies in diverse contexts, including Glas Cymru in the UK, Acquedotto Pugliese (AQP) in Italy, and Runda Water Ltd (RWL) in Nairobi, Kenya.

Finally, the article of Davide Testa, Giorgia Nolfi, Shasa Cali and Magloire Fopokam on overtourism to preserve urban liveability analyses this phenomenon through Weitzman's economic theories, in light of which more traditional regulatory approaches are criticised. The analysis relies mainly on Italian case studies, such as the restrictions and taxes imposed on access to certain cities, including Venice, and some seaside destinations, also comparing the different regulatory choices made by some of Italy's major cities and the outcome of the judgments involving them before the Administrative Courts. Ultimately, the hypothesis is that there is a need for a collaborative governance approach to tourism as a third way, in addition to the “Weitzman” approach, to be implemented through partnership models. Examples of this include Community Land Trusts, which are beginning to establish themselves in Italy as participatory foundations, and innovative

solutions tested in public policy programmes such as Smarter Italy. Last, the issue of overtourism is addressed from a comparative perspective, also in relation to areas that have recently become tourist destinations, such as Africa, highlighting how similar solutions are emerging in this case too, starting from Community Land Trusts.

In Part 2 on Impact Development and Investments the pursuit of sustainable development and impact-driven investment is deeply intertwined with evolving governance models, strategic partnerships, and financial mechanisms. The challenges of aligning economic goals with sustainability imperatives demand innovative frameworks that address normative and regulatory gaps while fostering inclusive growth and environmental resilience. Benefit corporations, dual-purpose entities and state-owned enterprises (SOEs) are emerging as critical actors in this landscape, bridging public and private interests to advance purpose-driven capitalism. By balancing profitability with sustainability objectives, these entities embody a shift towards governance models that integrate diverse stakeholder interests, though they continue to face challenges such as political interference, inefficiencies, and corruption risks. Multi-stakeholder partnerships further enrich this paradigm by creating inclusive and collaborative platforms that enable long-lasting impacts on vulnerable communities. These partnerships, supported by European Structural and Investment Funds and local regulatory frameworks, demonstrate the potential of co-governance tools in driving innovation and fostering equitable outcomes. The transformative experimentations in cities such as Reggio Emilia exemplify how localized solutions can address global sustainability challenges through contractual and regulatory innovations. Sustainable and impact finance, through instruments like green bonds, verified carbon credits, and sustainability-linked investments, plays a pivotal role in operationalizing these transitions. By channelling resources towards initiatives with measurable social and environmental benefits, these financial tools not only reshape market priorities but also enhance the scalability of sustainability efforts. Against this backdrop, what synergies can be achieved between governance models, multi-stakeholder partnerships, and financial mechanisms? How can these approaches be harmonized to ensure sustainable and inclusive growth across different regions? By

addressing these questions, this section aims to offer critical insights into how diverse governance frameworks, collaborative partnerships, and innovative financial mechanisms can be effectively integrated to drive sustainable impact development and investment, ensuring long-term benefits for society and the environment.

First, Kenneth Amaeshi, Adriano Contardi and Stella Scocco on Multi-Stakeholder Partnerships for Sustainable Impact Development highlight how contemporary challenges, such as climate change and the digital transition, make emerge the limitations of traditional governance models, often characterized by top-down decision-making processes. This article argues that achieving a just transition requires a new quality of sustainable innovation, and that traditional top-down innovation models are inadequate to address contemporary social, environmental, and territorial challenges. Instead, sustainable innovation must be co-governed and co-produced by public authorities, private actors, civil society, knowledge institutions, and communities. The article turns to the rise of sustainable impact finance and the growing emphasis on measurable, real-world impacts to show how this new focus can reshape incentives for both public and private actors. It then analyses how the EU and Italian legal frameworks, governed by principles such as the partnership principle and the Italian principle of result, can be used to steer public administration toward impact-oriented, co-governance models, aligning policy and finance mechanisms. Cities emerge as important enablers of this transformation due to their connectedness to communities and institutional flexibility. Two case studies, Reggio Emilia and the OKOBI initiative in Nigeria, illustrate how impact-driven multistakeholder partnerships can take form. The article concludes by identifying key challenges and outlining pathways to strengthen impact-based partnerships and advance a more inclusive, just and sustainable governance model of innovation.

Second article of Part 2 is that of Rubina Galeotti, Martina Mariani and Carlos Kodjori on the evolving landscape of ESG reporting in utilities. The study analyses the evolution of ESG reporting in the utilities sector, which is increasingly under scrutiny due to its environmental, social, and governance impact. With the growing global awareness of environmental challenges and the increasing demand for transparency, companies are being more

strongly encouraged to provide information on their ESG practices, often following mandatory regulations such as the EU's Non-Financial Reporting Directive (NFRD) and the Corporate Sustainability Reporting Directive (CSRD). The aim of the research is to assess how utilities are responding to these demands by analysing the structure of their sustainability reports through three main indicators: integration with financial statements, the way information is presented (text vs. graphics), and the length of the reports. The literature review highlights that ESG reporting allows companies to communicate their progress toward sustainability goals, improving trust among investors and stakeholders. The utilities sector, in particular, faces several challenges in aligning its business models with sustainability objectives, although many companies comply with EU reporting standards. The research is based on a sample of 16 utilities, with the intention of comparing recent data from 2023 with data collected in 2021. An improvement is expected in the more recent reports, particularly regarding the integration of sustainability reports into financial statements, the clarity of presented information, and the length of the documents. However, the study points out some limitations, such as the need to expand the sample and adopt complementary methods (e.g., case studies or surveys) to improve the validity of the results. In conclusion, the research suggests that companies in the utilities sector need to continue improving the transparency of their ESG reporting by adopting more standardized and understandable practices to better communicate their commitments and progress toward sustainability.

Third study by me, Antonio Persico and Gideon Galizzi on *Just, Democratic, Innovative and Sustainable Industrial Planning (JuDISIP)* aims at investigating why and how investing on countervailing economic and industrial power of vulnerable groups can maximize the economic, environmental, social and institutional impact of public laws and policies on development. The article addresses the evolving role of the State in the economy, in the context of the renewed prominence of industrial policy. A growing awareness, in fact, is emerging that global challenges and the crises of our time call into question the very role of the State and demand outputs capable of steering economic dynamics toward socially desirable objectives. This contribution focuses on this ongoing transformation and seeks to identify the legal, economic,

and financial toolkit of the new planning State. It argues that this new trajectory must overcome the current neglect of societal and territorial well-being in economic planning, instead aiming at the generation of multidimensional impacts and enabling the active participation of communities in identifying needs, shaping solutions, and exercising stewardship over the implementation of economic initiatives.

Finally, the article by Livia Ventura, Mario Manna and John Manuwa on Benefit Corporation, dual-purpose entities and state-owned enterprises: “new” models to achieve purpose driven capitalism, critically examines the evolving roles of benefit corporations, dual-purpose entities, and state-owned enterprises (SOEs) in advancing sustainable development, analysing how these corporate models balance economic success with sustainability goals while addressing the governance and legal challenges of integrating diverse stakeholder interests into corporate decision-making. Before analysing these “new models”, the article outlines the broader debate surrounding corporate purpose, sustainability, and the challenges of embedding these principles within corporate strategies. Then, a comparative analysis of legal frameworks governing benefit corporations and dual-purpose entities across multiple jurisdictions is provided, highlighting the diversity of regulatory approaches and their impact on corporate responsibility. A specific focus is dedicated to the Italian model of benefit corporations, examining its distinctive features and contributions to the integration of social and environmental objectives within corporate strategies. In addition to examining private sector initiatives, the article investigates the potential role of SOEs in driving sustainable transitions. While SOEs must operate according to economic criteria, they are often established to fulfil public interest missions, positioning them as key players in sustainability challenges such as emission reductions, sustainable waste management and green infrastructure investments. However, the article, through case studies analysis, also critically addresses the governance challenges SOEs face, including political influence, corruption risks, and inefficiencies, which may hinder their effectiveness as sustainability leaders. In conclusion, the article shows that benefit corporations, dual-purpose entities, and SOEs offer promising pathways for integrating sustainability into economic practices, yet their impact is contingent on overcoming

significant governance, regulatory, and operational challenges. A comprehensive, multi-dimensional approach is essential to fully realize their potential and drive meaningful progress toward achieving Sustainable Development Goals.

Some final words are due to acknowledge our profound sense of gratitude and appreciation for the scientific and methodological openness of Professors Giacinto Della Cananea and Angela Ferrari-Zumbini who allowed Luiss LabGov research affiliates to develop a publication that has an interdisciplinary and use-inspired basic research approach, giving also voice to younger generations of scholars from very different latitudes and contexts. This research was funded by the Horizon Europe AWARE project, which operates under Grant Agreement n° 101084245. My research greatly benefited from the possibility to spend time reflecting on these issues with Kenneth Amaeshi at The New Institute in Hamburg as a fellow of the Africapitalism research program which I was honoured to serve.

PART I - GOVERNANCE AND REGULATORY EXPERIMENTALISM

FROM GAP TO OPPORTUNITY:
REGULATORY VOIDS AS SPACES FOR EXPERIMENTATION AND
INNOVATION FOR SUSTAINABILITY

*Anna Berti Suman**, *Adaeze Oluchi Ashaheme***,
*Mohtas Anwar Modier***

Abstract

The article addresses the complex dynamics underlying regulatory experimentation and participatory regulatory processes for sustainable innovation in the agri-food sector. These experiences are investigated in their potential to promote a better understanding of the risks and opportunities associated with innovation, better legitimise its adoption, and stimulate responsible experimentation. The article first reviews relevant theories, such as critiques to techno-solutionism and literature on regulatory pluralism and experimentalism, and transnational administrative law doctrine, to stress the need for multiple instruments and viewpoints in shaping innovation. The case study analysis builds on the experience of the Horizon project AWARE, driving innovation in the field of aquaculture from refined wastewater through a pilot based in Southern Italy. The article also engages with a review of other case studies from the Global South shedding light on experiences of sustainable innovation for the benefit of vulnerable communities and related regulatory modalities. The 'capabilities approach' is discussed to frame the context through the lens of 'just' experimentalism in the sector. In conclusion, the article develops a reflection on way forwards that encompass co-governance approaches and a 'right to innovation through experimentalism' which entails not only access to innovation but also the opportunity to participate in shaping innovation.

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Attribution of paragraphs: Anna Berti Suman led the conceptualization, deployment of the research and writing, in particular for paragraphs 1 to 6 and 8-9. Adaeze Oluchi Ashaheme and Mohtas Anwar Modier, under the guidance of Anna Berti Suman, conducted the empirical research discussed in paragraph 7 and synthesized in Table 2.

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1. Introduction

The mounting socio-environmental challenges that today society is facing have mobilised governmental actors, researchers, businesses, and civil society in the search for innovative solutions to address these challenges. However, frequently, regulatory systems struggle to cope with the fast pace of innovation.

While regulatory gaps persist, bottom-up forms of experimentation from innovators multiply and push to shape the creation, adoption, and governance of innovation. These forces can give an impetus to the legislator in envisaging new intervention strategies, tackling regulatory vacuums in a constructive and participatory manner and enacting innovation-friendly regulations. Such dynamics demand a thorough analysis in order to be leveraged for greater societal benefits.

Starting from this argument, the contribution analyses:

- I. How ‘experimentalism’ in partially unregulated environments can steer innovation-friendly regulations (addressed primarily in Paragraphs 4 and 5).
- II. What role can the involvement of stakeholders play, in terms of contributing to regulatory processes with their knowledge (discussed primarily in Paragraph 6).
- III. How regulatory experimentation and participatory regulatory processes can benefit vulnerable communities in

exercising their ‘right to innovation’, specifically in the field of innovation in the agri-food sector (explored primarily in Paragraphs 7, 8 and 9).

By tackling these questions, our study addresses the complex dynamics underlying regulatory experimentation processes and participatory approaches. These dynamics are explored in order to investigate whether these experiences can promote a better understanding of the risks and opportunities associated with innovation, better legitimise its adoption, and stimulate responsible experimentation. The aim of our study is to bridge the long-standing conversation on regulatory experimentalism with theories on just sustainable innovation and on the role of vulnerable groups in this process. We take as primary field of study the agri-food sector responding to an identified gap stemming from the fact that current scholarly and practitioners’ discussions on regulatory experimentalism mostly focus on the field of digital innovation. However, we believe that the agri-food sector has great potential for proving the relevance of regulatory experimentalism especially for the benefit of those communities that depend on this sector.

The illustrated questions will be addressed through a combination of literature review and case study analysis. We first review relevant theories (Paragraphs 2 and 3), including sociological and philosophical critiques to techno-solutionism, in order to challenge a reductionist approach to tackling current socio-environmental issues through purely technological interventions. We also explore literature on regulatory pluralism and experimentalism, and on transnational administrative law, to acknowledge the complexity and multi-level nature of regulatory processes. We discuss this literature in the context of the relevant legal doctrine public law of innovation, both from a European perspective and from the Global South. We then investigate the role of vulnerable communities in engaging with innovation and the regulation thereof. We explore forms of collective and experimental governance of innovation aimed at steering innovation to benefit such communities. Lastly, we draw on the ‘capabilities approach’ in order to frame the concept of ‘just’ experimentalism and innovation in the agri-food sector.

The article builds on multi-case study analysis starting from the experience of the Horizon-funded project AWARE, driving innovation in the field of aquaculture from wastewater through a

pilot based in Southern Italy. From this localised case with a European breadth, we broaden our lens encompassing a review of other case studies from the 'South' shedding light on experiences of sustainable innovation for the benefit of vulnerable communities and related regulatory approaches. The 'South' is here understood not only as the geographical Global South, but also potentially the 'South of the Global North'¹. For example, Southern Italy can be considered to a certain extent the 'South of the North' as it faces challenges associated with climate change such as water scarcity and desertification that bring it closer to some non-European Mediterranean countries generally considered part of the Global South (i.e., Northern African and Middle Eastern countries). In the conclusion, we reflect on a possible 'right to innovation through experimentalism' that entails not only access to innovation but also an opportunity to *participate* in shaping such innovation processes.

2. Shaping innovation: from techno-solutionism to pluralistic regulatory processes

Innovation is multiplying at a fast pace, offering solutions that – if properly shaped and steered towards social benefit – could help society at large in responding to crucial challenges such as climate change, water scarcity, energy transition, and growing food demand. Social benefit in this context is considered – drawing on the Nagoya Protocol on Access and Benefit Sharing, a 2010 supplementary agreement to the 1992 Convention on Biological Diversity – as the fair and equitable access to the benefits arising from the utilization of certain resources, including by *appropriate access* to such resources and by *appropriate transfer* of relevant technologies, taking into account all rights over those resources.

The access of vulnerable communities – understood broadly as socio-economically fragile, rural, and historically disadvantaged communities – to the opportunities arising from these resources and technologies is at centre of social justice discourses and raises several dilemmas. Without a fair sharing of the benefits deriving from innovation, persistent situations of inequality would just be reinforced.

¹ A. Berti Suman, *Striving for Good Environmental Information: Civic Sentinels of Oil Pollution in the South of the North*, 17 *Law Env't & Dev. J.* 1 (2022) 5.

Sætra in the curated book “Technology and Sustainable Development: The Promise and Pitfalls of Techno-Solutionism” depicts the environmental challenges “threatening to drastically alter the trajectory of our future as a species” that society is currently experiencing². Sætra connects these challenges to a fervid deployment of human intelligence aimed at ideating and crafting technologies to respond to such challenges. These efforts are conducted by a diversity of actors, including “researchers, developers, and businesses”³. As Sætra puts it, technology is often “heralded as the cure for our ills”⁴, which suggests a tendency to ‘techno-solutionism’, that is the idea that technology can and should be used to solve the challenges faced by society.

Morozov engages with the solutionism trend, arguing that it fundamentally entails a faith in technology, but also a tendency to perceive, analyse and respond to social phenomena through the belief that challenges can be essentially managed through technological efficiency⁵. However, as Müller stresses, technology is not just an instrument that can be domesticated for human purposes, as it shapes the way society approaches such challenges, the solutions and opportunities perceived, and even societal relations⁶. This argument supports the quest for ensuring that vulnerable communities are included in the processes of shaping and regulating sustainable innovation.

Sætra poses an important question: “Does technology provide us with the means to solve sustainable development?”⁷. The answer is not straightforward essentially because “technology can be both an enabler and inhibitor of sustainable development”. Moreover, a nuanced understanding of ‘sustainability’ is needed beforehand. The United Nations’ report “Our Common Future” written by the Brundtland Commission in 1987 highlighted how sustainability goes beyond the environmental dimension, as it also

² H. Sætra, *Introduction: The Promise and Pitfalls of Techno-solutionism*, in H. Sætra (ed.) *Technology and Sustainable Development: The Promise and Pitfalls of Techno-Solutionism 1* (2023).

³ *Ibid.*, 2.

⁴ *Ibid.*

⁵ E. Morozov, *To save everything, click here: The folly of technological solutionism* (2013).

⁶ C. J. Müller, *Prometheanism: Technology, digital culture and human obsolescence* (2016).

⁷ H. Sætra, *Introduction: The Promise and Pitfalls of Techno-solutionism*, cit. at 2, 5.

embraces the need to intervene on social challenges such as inequality and poverty, and includes both economic and ethical issues related to, for example, access to innovation and inclusive economic growth⁸. Forms of epistemic, environmental, and even racial injustices can be perpetrated if an over-reliance and blind embracement of techno-solutionism prevails.

Sætra advances another pressing question: “What are the core values we seek to reach through sustainable development and the use of technology?”⁹. Societal agency is key for steering technology developments in ways that promote those values that individuals and collectives recognise as fundamental, affirms Sætra, citing a critique to techno-solutionism developed by philosopher Næss¹⁰.

Moving to the regulation of innovation, an important consideration is the acknowledgement that the barriers that often prevent innovations for sustainable development from becoming a reality are often not technological but economic, regulatory, political, social, and behavioural ones. The incapacity to identify these barriers to innovation could lead to shortcomings in the deployment of innovative technologies and to the failed uptake by society. Regulatory disconnects indeed often stem from the assumption that innovation for sustainability can be regulated in a space that is free from external influences, and in a controlled environment, whereas – in reality – often the opposite occurs. A series of forces, actors, values, agendas, strategies surround the development of technologies. Such complex constellation of interests, practices and agents must be considered for a comprehensive approach to regulation. In addition, spaces of dialogue and encounter must be envisioned to ensure that the experimental phases surrounding technological development become an integral part of its regulatory process.

At this stage, also a definition of regulation is useful. Black frames regulation as “the sustained and focused attempt to alter the behaviour of others according to standards or goals with the

⁸ G. Harlem Brundtland et al., *Our Common Future: Report of the World Commission on Environment and Development*, United Nations General Assembly Document A/42/427 (1987).

⁹ H. Sætra, *Introduction: The Promise and Pitfalls of Techno-solutionism*, cit. at 2, 6.

¹⁰ H. Sætra, *Introduction: The Promise and Pitfalls of Techno-solutionism*, cit. at 2, citing A. Næss, *Økologi, Samfunn, Livisstil* (1999).

intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behaviour-modification”¹¹. Leenes argues that “to regulate means to weigh interests and the outcome of this process can hardly ever satisfy all”¹². Leenes embraces Black’s conceptualisation of regulation, as an activity that is essentially *pluralistic*, moving “beyond the state as the sole regulator and which includes other modalities of regulation”¹³. However, as Infantino and Bussani stress, the state remains both “a major developer and tester of new technologies” and a prime driving force “in shaping the law regulating technology”¹⁴.

As innovative technologies multiply, also regulation does. Indeed, new regulations seem to be steadily and insistently demanded as soon as a new technology emerges¹⁵. However, often regulation fails to reconcile those interests and concerns that pushed actors to exactly request regulatory interventions¹⁶. Therefore, the regulatory process should not be a simplistic matter of putting a new technology in an existing or new normative frame but rather a complex process where a multiplicity of questions must be addressed such as “who is to intervene, who (or what) to address, through which (combination of) means (e.g., law, norms, architecture, markets)”¹⁷. In the subsequent paragraph, this pluralistic understanding of the regulatory process is disentangled building on theories of regulatory pluralism and regulatory experimentalism.

3. The complexity of regulating: between pluralism and experimentalism

In the previous paragraph, we argued that the process of regulating innovation for sustainability is inherently complex. In

¹¹ J. Black, *Critical reflections on regulation*, 27 *Austl. J. Legal Phil.* 26 (2002).

¹² R. Leenes, *Regulating new technologies in times of change*, in L. Reins (ed.), *Regulating New Technologies in Uncertain Times* (2019), 6.

¹³ *Ibid.*, 12.

¹⁴ M. Infantino & M. Bussani, *The Law of the Algorithmic State in Central and Eastern Europe. Introduction to the Special Issue*, 17 *IJPL* 2 (2025), 448.

¹⁵ R. Leenes, *Regulating new technologies in times of change*, *cit.* at 6.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

addition, we showed that technological innovation is only part of the solution to current socio-environmental challenges. Lastly, we stressed the need to ensure vulnerable communities' access to the benefits arising from innovation and their participation in innovation-friendly regulatory processes.

Sociological and philosophical critiques to a solutionist approach to technology and innovation enabled us to stress the value of considering a plurality of actors and forces. Næss discusses the importance of a "localized approach to technology" which can bring about "great variation in technology and the production of these technologies"¹⁸. This approach can have multiple benefits, such as "the enhanced ability to *adapt technology to local needs* but also how increased diversity in technologies might generate fertile ground for innovation and continuous development" [emphasis added to quote]¹⁹.

A localized approach to innovation calls upon also the need to diversify the strategies to regulate such progresses, by including in the regulatory process a multiplicity of local actors that will have to face the consequences, including the benefits and challenges posed by an innovation. An interesting example of an approach to technology and innovation that embraces diversity is the "radical indigenous Lo-TEK", a design movement which aims to re-discover and re-integrate indigenous philosophy and know-hows in designing sustainability interventions²⁰. Indigenous solutions – inherently technological – are regarded as less complicated and more reflective of local needs²¹. Interestingly, this movement was particularly interested in, among other sectors, the field of organic food production and cooperative forms of living and producing²², resonating with the focus of our study.

We believe that it is worth introducing at this stage the concept of 'regulatory pluralism' which stresses the need to rely on

¹⁸ A. Næss, *Økologi, Samfunn, Livsstil. Bokklubben dagens bøker* (1999), cited in H. Sætra, *The Role of Technology in Alternatives to Growth-Based Sustainable Development*, in H. Sætra (ed.) *Technology and Sustainable Development: The Promise and Pitfalls of Techno-Solutionism* (2023) 257.

¹⁹ *Ibid.*

²⁰ J. Watson, *Lo-TEK: Design by radical indigenism* (2020) cited in H. Sætra, *The Role of Technology in Alternatives to Growth-Based Sustainable Development*, cit. at 17

²¹ *Ibid.*, 258.

²² A. Smith, *The alternative technology movement: An analysis of its framing and negotiation of technology development*, 2 *Human Ecology Review* 106 (2005).

a combination of regulatory instruments and approaches, coming from different actors, to respond to today's socio-environmental issues²³. Gunningham and Sinclair argue that, when a variety of actors enter the regulation arena, different perspectives are introduced. The widening of the actors allowed within regulatory processes may improve regulation (for example by enriching the evidence base on which decisions are taken with different inputs) but may also turn out to be counterproductive (when, for example, it undermines the legitimacy of appointed decision-makers or creates informational overloads)²⁴.

Verbruggen, building on Black's concept of 'regulatory enrolment'²⁵ tackles specifically situations of 'regime complexity' where "the capacity for regulatory governance is dispersed among a variety of actors, none of which holds such a central position in the regulatory arena that they can unequivocally determine outcomes"²⁶. Interestingly, Verbruggen contextualizes his reflection in the – here fitting – sector of food safety and food regulation and explores public, private and other actors' pushes to enter the regulatory arena.

The regulatory pluralism lens may help justifying and supporting initiatives aimed to open regulatory spaces to a multiplicity of actors. The complexity of today's societies, the proliferation of wicked problems, the abundance of information, uncertainty over the future, misinformation, populism, and polarisation demand new approaches to regulating²⁷. Such approaches – we will argue – should embrace a civic right to access and benefit from innovation but also to *participate* in its shaping

²³ N. Gunningham et al., *Smart Regulation: Designing Environmental Policy* (1998).

²⁴ N. Gunningham & D. Sinclair, *Regulatory Pluralism: Designing Policy Mixes for Environmental Protection*, in P. S. Menell (ed.) *Environmental Law* (2002) 49, 50.

²⁵ J. Black, *Enrolling Actors in Regulatory Systems: Examples from UK Financial Services Regulation*, 1 *Public Law* 63 (2003).

²⁶ P. Verbruggen, *Understanding the "New Governance" of Food Safety: Regulatory Enrolment as a Response to Change in Public and Private Power*, 5 *Cambridge J. of Int. & Comp. L.* 418, 419 (2016).

²⁷ J. Millard, M. Manzoni & S. Schade (eds.), *Impact of digital transformation on public governance* (2023) JRC133975.

including through regulation²⁸. Regulation is indeed “itself a product of different framings and ideational power dynamics”²⁹.

Public law scholar Boscolo captures the need for flexible, revisable, and adaptive approaches to regulation. Boscolo argues that today’s socio-environmental transitions activate ‘non-linear evolutionary processes’ which are hard to predict and to regulate through rigid traditional approaches³⁰. More flexible regulatory approaches would be apt to “govern uncertainty”³¹, an indispensable feature that regulations should have to steer processes of adaptation to increasingly complex and unpredictable socio-environmental stresses. As argued by public law scholars Bussani et al. in the context of innovation in the EU agenda, the precautionary principle is a “basic pillar of regulatory choice under conditions of radical uncertainty”³². Both precaution and innovation are driving forces behind regulatory interventions.

Regulatory experimentalism and more specifically the concept of a right to innovation can be read in the context of a ‘common core’ that according to public law scholar Della Cananea³³ would exist in European administrative laws, to the point that this core can be of interest for other contexts, including the Global South³⁴. Della Cananea, for example, refers to lessons for

²⁸ A. Berti Suman, *Striving for Good Environmental Information: Civic Sentinels of Oil Pollution in the South of the North*, cit. at 1, 4 also discusses regulatory pluralism in relation to another ‘new’ right, that of a civic right to contribute environmental information, discussing a case from Southern Italy.

²⁹ M. Bussani, G. Della Cananea, C.M. Radaelli & G. Taffoni, *Regulation and Innovation in the European Union: The European Commission and the Council in the early stages of the policy process*, CoCEAL Working Paper Series n. 1, Issue 1/2021, 9-10. For the relationship between food and power, see also <https://thenew.institute/en/media/the-elephant-at-the-table-policy-pathways-to-confront-power-in-food-systems/introduction>.

³⁰ E. Boscolo, *Relazione Introduttiva: L’Urbanistica nella Stagione delle Transizioni (Ambientale e Digitale)*, in A. Bartolini et al. (eds.), *Transizione ambientale e digitale: effetti sul governo del territorio* (2023), 1.

³¹ *Ibid*, 1.

³² M. Bussani, G. Della Cananea, C.M. Radaelli & G. Taffoni, *Regulation and Innovation in the European Union: The European Commission and the Council in the early stages of the policy process*, cit. at 28, 6.

³³ G. della Cananea, *The ‘Common Core’ of Administrative Laws in Europe: A Research Agenda*, CoCEAL Working Paper Series n. 1, Issue 1/2017.

³⁴ G. della Cananea, *A New Comparative Research on Administrative Laws in Europe: Implications for Latin America*, CoCEAL Working Paper Series n. 6, Issue 2/2019.

administrative law systems of Latin American countries³⁵. In arguing in favour of identifying common principles in administrative law, the author starts from an inquiry of administrative procedure, building on the work of Latin American public law scholars such as De Enterría³⁶ and Brewer Carías³⁷.

4. Experimental approaches to regulation

A complementary angle to that of regulatory pluralism is the concept of ‘regulatory learning’ in experimental spaces. This approach highly resonates with Kolb’s ‘experiential learning’ theory³⁸ which stresses the key role of experiences in shaping the learning process. A policy brief by the Joint Research Centre of the European Commission and the European Network of Living Labs offers a useful overview on the array of experimentation spaces that can support regulatory decision-making and learning³⁹.

The brief defines regulatory learning as “the collection and use of any evidence or knowledge that is relevant to current or future regulatory policy, generated in the process of experimenting with an innovative solution”⁴⁰. The brief was followed in 2023 by a European Commission’s Staff Working Document, launched under the New European Innovation Agenda, that reviews available experimentation tools (e.g., regulatory sandboxes, testbeds and living labs) and showcases existing examples of participatory regulatory process from Europe and beyond⁴¹.

The brief categorizes regulatory learning dynamics as ‘top-down’, i.e., initiated by a regulatory authority that seeks evidence from the field in which a specific innovation will intervene and

³⁵ Ibid.

³⁶ E. García de Enterría, *Reflexiones sobre la Ley y los principios generales del Derecho en el Derecho Administrativo*, Rev. de Admin. Pub. 40 (1963).

³⁷ A. Brewer Carías, *Les principes de la procédure administrative non contentieuse. Etude de droit comparé (France, Espagne, Amérique Latine)* (1992).

³⁸ D. Kolb, *Experiential Learning: Experience As The Source Of Learning And Development* (1984).

³⁹ K. Kert, M. Vebrova, S. Schade, *Regulatory learning in experimentation spaces* (2022) JRC130458.

⁴⁰ Ibid, 2.

⁴¹ See https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/new-commission-staff-working-document-sheds-light-experimentation-spaces-regulatory-learning-2023-07-25_en.

based on this evidence the authority shapes a new or revised regulatory measure. 'Bottom-up' regulatory learning refers instead to the situation in which a regulatory insight emerges spontaneously from innovation deployed in an experimentation space⁴². A good example of this second scenario will be offered by the AWARE case study, in which lessons are learned from confronting regulatory obstacles in practice and on the ground.

Experimental regulatory approaches are needed to harmonize innovative solutions with regulatory frameworks, that are often complex, overlapping and layered across EU, national, regional and local levels. Disruptive innovations may indeed "be subject to unsuited regulatory frameworks or fall outside them altogether, which may hamper the development and deployment of innovation and weaken investor and consumer confidence"⁴³. Tackling these barriers through regulatory learning in experimentation spaces may require regulatory change, but it is also conceivable that at the end of the process it results that no regulatory intervention is needed⁴⁴.

The brief also includes findings from interviews conducted with research and innovation practitioners. The types of concerns voiced by these actors are insightful. Innovators for example ask, "How do regulators interpret the rules in relation to innovative solutions not specifically foreseen by the current regulatory framework?". Regulators on their side pose the questions on "What are the new regulatory needs to foster innovative solutions and business models while safeguarding social values and protecting the public?". Lastly, citizens want to know the effects of such innovations and regulations on their daily life and demand transparency in this process⁴⁵.

Timely, the brief also discusses "the joint value that the actors involved in innovation creation, adoption, and governance may derive from collaboration within different experimentation

⁴² K. Kert, M. Vebrova, S. Schade, *Regulatory learning in experimentation spaces*, cit. at 27. See also Box 2 for examples of top-down and bottom-up regulatory learning in experimentation spaces.

⁴³ *Ibid.*

⁴⁴ *Ibid.*

⁴⁵ *Ibid.*, 3.

spaces, such as test beds, living labs, and regulatory sandboxes⁴⁶. This collaboration becomes even more essential over technologies that raise public concern, where civic scrutiny and meaningful public engagement can open a needed discussion on the social value, impact, and governance mechanisms that society envisages for a certain technology and its deployment⁴⁷. The current research and innovation framework at the EU level, particularly through the Horizon Europe programme, acknowledges the importance of a meaningful citizen engagement in regulatory experimentation and promotes spaces where this engagement can take place.

Despite the promises, regulatory experimentation comes with challenges, as highlighted by academic literature on regulatory sandboxes⁴⁸, which interestingly points to the impact of regulatory sandboxes on the increasing collaborative dimensions of public law. Foreseeable risks include that of regulatory capture due to the close collaboration between regulators and regulated actors, and the risk of violating traditional administrative law principles, such as transparency, legality and proportionality.

The cited brief also highlights potential limitations of experimental regulatory spaces. Among these issues particularly relevant are the high costs in terms of (financial, human and time) resources; the low impact in cases where non-regulatory barriers to innovation are more determinant than regulatory ones; the low scalability and replicability of the results of experimentation when such results are too context-specific; the potentially confusing outcomes generated when regulatory flexibility creates market fragmentation at the EU level; the possible concerns associated with a preferential treatment granted to certain innovators and innovations over others, creating unfair competition and prioritising certain interests over others⁴⁹.

⁴⁶ Ibid, 1. See also Table 2 offering an overview of experimentation spaces and their typical features.

⁴⁷ Ibid, 2.

⁴⁸ S. Ranchordas & V. Vinci, *Regulatory Sandboxes and Innovation-friendly Regulation: Between Collaboration and Capture*, 1 IJPL 1 (2024).

⁴⁹ Ibid, 4.

5. Epistemic considerations in shaping regulatory processes: insights from territorial governance

Regulatory experimentation may be useful both in terms of process and in terms of inputs: as the cited brief argues, regulatory learning processes “offer a setting in which different stakeholders can build constructive relationships of *knowledge exchange* and *trust*, which contributes to improving regulatory governance of innovation” [emphasis added to quote]⁵⁰. The insights gathered through such experimentation spaces can help promote epistemic diversity in the regulatory process. Comprehensive stakeholder engagement interventions can both contribute to inform regulations with evidence from the ground and from practice, and increase the legitimacy of innovation and its regulation, augmenting their chances of uptake among the public⁵¹.

A specific dimension where these approaches may unfold is the urban context through what we can frame as ‘urban experimentalism’. The recommendations of the discussed brief by the Joint Research Centre point to the need to “explore the multi-level governance aspects’ of regulatory experiments and to deploy these experiments at different administrative levels”⁵². We understand this indication as including the regulation of innovation at the urban level.

A good example is offered by Italian legal doctrine on public law of innovation in relation to territorial *multi-level* governance. This area is a constitutionally concurrent legislative matter that encompasses a set of interrelated functions, involves a variety of institutions, and demands the intervention of cross-cutting and transversal competences⁵³. On this arena, the administrative principles of subsidiarity, adequacy, competence, loyal cooperation, consistency, and simplification (should) steer interventions, including regulatory ones⁵⁴. The methodology of ‘co-planning’ consisting of the active and equal participation of

⁵⁰ Ibid.

⁵¹ Ibid. See also Box 1 of the brief offering an overview of the recognition of regulatory experimentation spaces in EU policy.

⁵² Ibid.

⁵³ C.A. Barbieri, *Principi e Norme Generali del Governo del Territorio e la Pianificazione. Un vuoto legislativo da colmare*, in A. Bartolini et al. (eds.), *Transizione ambientale e digitale: effetti sul governo del territorio* (2023), 92.

⁵⁴ Ibid, 93.

institutional and other actors is key here to inform and steer regulatory action⁵⁵.

Experiences of urban experimentalism through stakeholder engagement and knowledge sharing have been systematized in the ‘Co-City Protocol’ by Foster and Iaione⁵⁶. The protocol offers insights and a roadmap on how to shape co-governance mechanisms that encourage collaboration among at least five typologies of stakeholders (citizens/civil society organizations and innovators, schools and universities, businesses, public authorities, and the environment)^{57,58}. The protocol aims at encouraging an active role of local communities as key players in the production, delivery, and management of urban assets or local resources, through innovative forms of cooperation. The protocol is currently being applied in local contexts, including in that of the AWARE project. The Protocol supports ‘mission-oriented’ and place-based innovations⁵⁹ aimed to promote local sustainable development, as well as inclusive regeneration of underprivileged urban areas⁶⁰. Furthermore, the Protocol advances the principle of ‘Technology Justice’ in governing urban challenges⁶¹.

The importance of multi-level governance of innovation including through regulatory coordination is evident in the field of spatial data, for example. The 2007 INSPIRE Directive established common rules for spatial information infrastructures across the EU, with the aim to ensure the exchange, sharing, access, and use of spatial data according to uniform and interoperable standards. It did so through the creation in each Member State of spatial information infrastructures that are compatible and usable in cross-

⁵⁵ Ibid.

⁵⁶ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions Toward Just and Self-Sustaining Communities* (2022).

⁵⁷ S. Foster & C. Iaione, *The City as a Commons*, 34 *Yale L. & Pol’y Rev.* 281 (2016).

⁵⁸ S. Foster & C. Iaione, *Ostrom in the City: Design Principles and Practices for the Urban Commons*, in D. Cole, B. Hudson, J. Rosenbloom (eds.), *Routledge Handbook of the Study of the Commons* (2018).

⁵⁹ C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, 1 *Munus* 37 (2024).

⁶⁰ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions Toward Just and Self-Sustaining Communities*, cit. at 40.

⁶¹ C. Iaione, E. de Nictolis, A. Berti Suman, *The Internet of Humans (IoH): Human Rights and Co-Governance to Achieve Tech Justice in the City*, 13 *Law & Ethics. Hum. Rts.* 263 (2019).

border contexts. Only an effort of *regulatory multilateralism* enabled the creation of such a joint spatial infrastructure across the EU. However, this innovation still struggles to be fully implemented in practice and to benefit territorial realities, for example in the Italian contexts, due to a series of socio-political barriers, as literature argues⁶². The case of spatial data reinforces the argument that regulatory innovation should be brought to local contexts to really benefit local communities.

6. The AWARE project and its regulatory challenges

The water sector – a sector considerably affected by today socio-environmental challenges – offers interesting opportunities for regulatory experimentalism, co-governance of innovation, and meaningful stakeholder engagement. For example, a study by Kristic et al.⁶³ in this issue looks at the application of Environmental, Social, and Governance (ESG) Standards within the water utilities sector, for achieving an Integrated Water Resources Management, regarded as essential for equitable and sustainable water resource management. The article frames the problem through the lens of Urban Commons and the Co-City theory⁶⁴, bringing Ostrom's principles to the city⁶⁵, and proposes a co-governance model based on collective stewardship, community engagement and equitable resource distribution. The study draws insights from empirical case studies located in geographically and socially different contexts, from the United Kingdom to Southern Italy to Nairobi, Kenya⁶⁶.

Other studies in the field discuss stakeholder engagement for tackling public uptake barriers and for addressing regulatory voids or uncertainties in relation to innovation in the water sector. Drawing on the experience of the FIT4REUSE project⁶⁷ (funded

⁶² G. Avanzini, *Digitalizzazione e decisioni territoriali*, in A. Bartolini et al. (eds.), *Transizione ambientale e digitale: effetti sul governo del territorio* (2023), 101.

⁶³ M. Kristic, S. Sabatucci & I. Mugabi, *Winning the water battle with Sustainable Co - Governance: evidence from water utilities companies*, in this Issue.

⁶⁴ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions Toward Just and Self-Sustaining Communities*, cit.

⁶⁵ S. Foster & C. Iaione, *Ostrom in the City: Design Principles and Practices for the Urban Commons*, cit.

⁶⁶ M. Kristic, S. Sabatucci & I. Mugabi, *Winning the water battle with Sustainable Co - Governance: evidence from water utilities companies*, cit.

⁶⁷ See webpage at <https://fit4reuse.org/>.

under the EU program Partnership for Research and Innovation in the Mediterranean Area - PRIMA), Berti Suman and Toscano⁶⁸ explored how technical solutions for utilizing non-conventional water resources in the Mediterranean agricultural sector must face challenges related to public acceptance and regulatory barriers. Further, Berti Suman and others⁶⁹ discussed the advent of the EU Water Reuse Regulation in the Mediterranean region, focusing the attention on policy and legislative adaptations which are needed to address non-conventional water resources utilisation in agriculture, also shedding light on the complex stakeholders' engagement processes behind these interventions.

Our case study builds on the experience of the EU Horizon programme-funded project AWARE⁷⁰, launched in 2022. The project aims to remove the barriers that prevent treated wastewater-based aquaculture from becoming a European reality. It created Europe's first demonstration-scale aquaponics plant for agricultural purposes, aimed at producing fish and vegetables suitable for human consumption, by implementing an innovative, highly resilient and sustainable approach. In this paragraph, we discuss the AWARE case whereas in the subsequent paragraphs we discuss other cases where technological innovations in the water sector have been deployed in combination with experimental regulatory schemes, in particular in the Global South. We then return to the European context to search for comparable regulatory experiences in the field of wastewater reuse.

The AWARE project involves numerous partners, from academic to institutional actors, also encompassing sectorial associations such as the European Aquaculture Society. The analysis of the regulatory framework and the involvement of stakeholders is curated by Luiss Guido Carli University, with the

⁶⁸ A. Berti Suman & A. Toscano, *Public Acceptance of Water Reuse for Agriculture in the Wake of the New EU Regulation: Early Reflections*, 18 *Env't & Plan. L.J.* 225 (2021).

⁶⁹ A. Berti Suman, L. Garcia Herrero, S. Lavrnic, M.C. Sole, A. Toscano, M. Vittuari, *The advent of EU Water Reuse regulation in the Mediterranean region: policy and legislative adaptation to address non-conventional water resources utilisation in agriculture*, 48 *Water Int.* 839 (2023).

⁷⁰ See webpage at <https://www.aware-eu.eu/the-project/>. The project is funded by the HORIZON-CL6-2022-FARM2FORK-01 call - Fair, healthy and environmentally-friendly food systems from primary production to consumption. Author Anna Berti Suman is currently working on the project in the framework of Work Package 5 led by Luiss Guido Carli University.

involvement of LabGov - Laboratory for the Governance of the City as Commons, which are bringing to the project insights from relevant experiences of co-governance of the urban commons and from applying just sustainable innovation principles.

The technological and innovation components are very prominent in the project, so do the regulatory barriers that the project faces. The field of innovation in the aquaculture sector is particularly interesting as the demand for aquaculture products is increasing in Europe, creating a growing opportunity for the sector. Authors in the field note that existing studies have demonstrated the benefits of aquaponic systems for the production of both plants and aquatic organisms, and its advantages in terms of economics and environmental protection⁷¹. However, freshwater aquaculture production has declined in Europe since the beginning of the 21st century, due to a lack of innovation, poor product diversity, seasonality, and – notably – strict environmental regulations. There is also the problem of missing scientific evidence on the safety, quality, economic feasibility, and social acceptability of the aquaponic-based value chain⁷².

The AWARE project aims to boost the sector leveraging the potential of advancements in wastewater treatment technologies. An increased capacity to produce fish and vegetables for human consumption at European level will have numerous benefits including the possibility to produce food locally, a reduced impact on natural habitats, and the independence from the availability of fresh water which can enhance resilience to climate change. In addition, the project aims to respond to the needs outlined in literature, namely that of addressing the mistrust from the public in consuming fish or vegetables grown in reclaimed water; the need to verify the safety and advantages of such cultivation technique, and to establish guidelines for a safe and responsible use of reclaimed water in aquaponics⁷³.

The AWARE project deployed a Recirculation Aquaponic System (RAS) with a 'zero waste' approach, based on the reuse of wastewater, treated to the level of being comparable in terms of

⁷¹ L. Cifuentes-Torres, G. Correa-Reyes, L. Mendoza-Espinosa, *Can Reclaimed Water Be Used for Sustainable Food Production in Aquaponics?*, 12 *Front. iPlant Sci.* 1 (2021).

⁷² *Ibid.*

⁷³ *Ibid.*

quality to drinkable water, thanks to a biofilter acting as last barrier for any residual substance. Figure 1 below illustrates this process. The RAS system is integrated with monitoring technologies to improve the system’s operation and its sustainability. The needed energy to fuel the system is around 7 kW and a dedicated photovoltaic system provides for part of its energy consumption. The RAS pilot is placed in a region that is particularly vulnerable to water scarcity: Puglia, South of Italy, in the city of Castellana Grotte, a site where some of the project partners are located.

The project identified several barriers that currently reduce the European potential of aquaculture in reclaimed waters. These barriers are i) technological: related to the functioning and sustainability of the system; ii) economic: related to the business model of this value chain; iii) regulatory: linked to fact that currently Italy and the EU lacks a regulatory framework that supports this technique; d) political: connected to the still scarce political support for the expansion and commercialization of this technique; e) behavioural: linked to the need to evaluate acceptance by end users, using a series of socio-behavioural analyses.

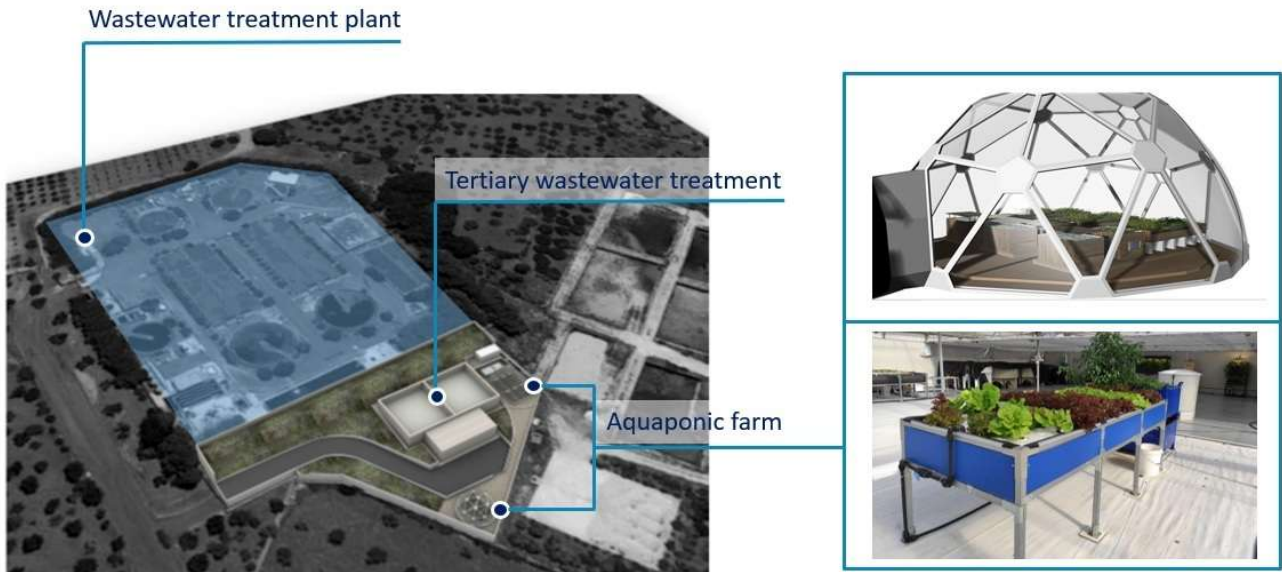


Figure 1 - The AWARE Recirculation Aquaponic System based on a 'zero waste' approach [source: AWARE project]

Throughout the project and with the specific case study at the Castellana Grotte plant, the AWARE consortium aims to: a) concretely demonstrate the effectiveness of technical solutions for efficient and sustainable aquaculture from reclaimed wastewater; b) increase the reuse of wastewater as a resource to be exploited where it is generated; c) create a new value chain at local level (*farm-to-fork* value chain) contributing to European economic growth and zero-waste urban agriculture; generating social, environmental and economic benefits; and demonstrating how this value chain can be scalable and transferable to other contexts; d) lay the foundations for a new regulatory and political framework to support European aquaculture.

Especially letter d) cited above is key for our study. Indeed, the AWARE project aims at contributing, first, to the Strategic Guidelines for a more sustainable and competitive EU aquaculture for the period 2021 - 2030⁷⁴, in line with the broader objectives of the European Green Deal. In addition, the project through its pilot in Puglia intends to offer evidence to inform the Italian national framework that has implemented these strategic EU guidelines, i.e., the National Strategic Plan for Italian Aquaculture 2021-2027⁷⁵. Among the priorities of the Italian Strategic Plan, we find: scientific research and digitalization; consumer awareness and social acceptability; strengthening the strategic role of regional administrations; and - remarkably - community-led local development. We also identify objectives that are pertinent to our inquiry, namely “Strengthening institutional capacity and simplifying administrative procedures” and “Ensuring the development and sustainable growth of aquaculture through coordinated spatial planning and increasing site potential”.

It should be noted that aquaculture, unlike fisheries, is not an exclusive EU competence, which highlights the need for multi-level governance of the sector. In addition, the EU recognizes that efficient coordination among rules and regulations is needed as there is a large body of EU legislation which aquaculture producers

⁷⁴ See *Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030* (COM (2021) 236 final), available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:236:FIN>. See also the European Commission’s webpage on aquaculture policy, https://oceans-and-fisheries.ec.europa.eu/policy/aquaculture-policy_en.

⁷⁵ See <https://aquaculture.ec.europa.eu/country-information/italy>.

must comply with⁷⁶. This is why the European Commission issued non-binding strategic guidelines for EU aquaculture, which offered the basis for the development of specific national strategic plans for aquaculture⁷⁷, that are being issued by individual EU countries. The European Commission adopted the so-called ‘open method of coordination’ according to which national and EU-wide progresses proceed in parallel through the exchange of good practices among EU countries. Projects envisaging pilots developed at a local level but through an EU-wide coordination, such as the AWARE project, could be particularly insightful to share best practices and identify needs for further regulation.

The AWARE project is also relevant to the present discussion as stakeholder engagement activities are seen as central to advance the regulatory change that the project wishes to inspire. The project mapped – as a first step towards engagement – policy-makers at local, regional and national level, water management authorities, international institutions, scientific and research institutions, civil society organisations, innovators, operators and farmers’ organisations, funding bodies and thematic networks. The methods deployed for engagement include active stakeholder involvement and co-design of interventions. An example of an impactful stakeholder engagement intervention has been the organization of a Bootcamp on the theme of ‘Just Sustainable Innovation’ on May 14th, 2025, in Bari and Castellana Grotte. The Bootcamp involved more than 50 participants among students, young professionals, expert mentors and policy-makers in the co-design of innovative solutions to identified challenges related to sustainable water and food management in the Puglia Region. Figure 2 below depicts the site visit that occurred during the Bootcamp.

⁷⁶ For an overview of the regulatory and policy framework for aquaponics in the EU see T. Reinhardt, K. Hoevenaars & A. Joyce (2019), *Regulatory Frameworks for Aquaponics in the European Union*, in Simon Goddek and others (eds.), *Aquaponics Food Production Systems* (2019).

⁷⁷ See <https://aquaculture.ec.europa.eu/country-information>. See also a dedicated platform for promoting engagement and innovation of stakeholders in the Italian aquaponic sector, <https://piattaformaitaqua.it/>.



Figure 2 - The AWARE approach and key steps illustrated [source: authors]

Another valuable aspect of the AWARE project relates to the strategy adopted for addressing the existing regulatory barriers by promoting experimentalism in the context of regulatory gap. The aim of adopting this approach was to steer regulatory advancement through tests and exchanges with relevant stakeholders. Indeed, in order to deploy the pilot in Castellana Grotte, the consortium entered in dialogue (including through formal interpellations) with the Italian Ministry of Agriculture, the Ministry of Health, and the Ministry of the Environment, as well as with the local Regional Health Authority (ASL). The plant obtained authorization as an experimental facility for research purposes⁷⁸ (after registration in the Italian National Database of the Ministry of Health, as ‘confined experimental plant’) and aims to prove the safety and nutrition levels of the food produced in the facility to obtain an authorization

⁷⁸ Currently, the AWARE project operates under an exemption pursuant to Article 2, paragraph 3 of Regulation (EU) 2020/741, with authorisation from the Puglia Region (prot. AOO/075_0009442 of 03/08/2023). Pursuant to Article 2(9) of the same Regulation, the products obtained cannot be placed on the market during the experimental phase.

that enables commercialisation (thus insertion on the market) of the products from the plant (i.e., lettuce and fish).

The key regulatory void in this case is that aquaculture in treated wastewater is not yet a regulated field in the EU. Regulation (EU) 2020/741 establishing minimum requirements for water reuse, while defining a harmonised framework for water reuse in agriculture, does not explicitly cover aquaponic systems using treated wastewater. The same approach has been adopted by the Italian Presidential Decree on wastewater reuse, implementing Regulation (EU) 2020/741, which has been issued on November 5, 2025, by the Italian Council of Ministers, upon the proposal of the Minister of the Environment. The Decree is currently under discussion by the Italian Parliament.

The outlined gap creates regulatory uncertainty, hindering potential applications of this technique. Formally recognising the system as an unconventional irrigation method could allow it to be included in a specific regulatory framework, on a par with the practices already recognized in Regulation (EU) 2020/741, overcoming the current limitations experienced by the pilot scale. Furthermore, its regulation could specify the conditions (e.g., risk assessment, monitoring protocols) under which the suitability for human consumption of the vegetables and fishes produced would be determined.

From a legal perspective, the AWARE project is set in a rapidly evolving regulatory context regarding the reuse of refined waters. The project's results – demonstrating the suitability for human consumption of the vegetables and fish produced in this type of system – aim to offer evidence to steer the implementation of the discussed Regulation (EU) 2020/741. Furthermore, the project closely followed the progresses of Directive (EU) 2024/3019 of the European Parliament and of the Council concerning urban wastewater treatment. The Directive on one side sets more stringent standards and mandate unified prescriptions to Member States to prevent the adverse effects of urban wastewater discharge and the associated health hazards. On the other side, it fosters increased circularity introducing new requirements to recover valuable components from wastewater, including in agriculture. The Directive does not foresee a distinction, as hoped by the AWARE consortium, between *treated* and *refined* wastewater (the latter being the scenario of the water treated with the AWARE plant's system).

Overall, the project is both being influenced by the outlined regulatory framework and is contributing to promote its advancements.

In terms of policy impact, the AWARE project aims at contributing, first, to the Strategic Guidelines for a more sustainable and competitive EU aquaculture for the period 2021 - 2030, in line with the broader objectives of the European Green Deal. In addition, the project through its pilot in Puglia intends to offer evidence to inform the Italian national framework that has implemented these strategic EU guidelines, i.e., the National Strategic Plan for Italian Aquaculture 2021-2027, and that will have to implement the new EU legislative framework for urban wastewater. At the international level, projects like AWARE are contributing to the objectives of Agenda 2030, in particular Sustainable Development Goal (SDG) 2 - Zero Hunger and SDG 12 - Responsible Consumption and Production.

Interestingly, the project is trying to steer regulatory experimentalism by invoking article 36 of the Italian Law Decree no. 2020/76 which fosters technological innovation in the public sector. Although the article has mainly found application in the digital sector, it could be extended to the field of innovative agri-food technologies. Applying this article through an extensive interpretation, a more pervasive form of collaboration with the competent institutions could be justified and there would be impetus for regulatory interventions that are essential for supporting the project's advancements.

This interpretation would also be in line with Regional Law No. 4/2025 on Open Innovation and Artificial Intelligence in the Puglia Region, where the project's experimental site is located. Already in the project's Grant Agreement, a sort of 'duty to cooperate' from the competent public administrations is enshrined, when it is affirmed that institutions, regulatory agencies and political decision-maker are invited to collaborate with the project partnership to clarify the process and requirements in order to: i) obtain the necessary authorizations to start the pilot plant first in Italy pursuant to the applicable national and EU legal framework, and transfer its solutions to other contexts; ii) initiate a dialogue at political level on the inclusion of wastewater aquaponics in the long-term strategy of the EU (e.g., in the Common Agricultural

Policy, in the implementation of the EU Green Deal objectives) and transfer the implemented solution to other European regions.

Among the regulatory questions that are being addressed, worth mentioning are the following ones: can fish bred in the first European RAS, built as part of the AWARE project, be consumed in Castellana Grotte and, in general, in Italy? Can the reclaimed water after advanced tertiary treatment be considered of comparable quality that drinking water? Can this fish be consumed by citizens resident outside Italy, in an EU or non-EU country, recruited as volunteers in the framework of the AWARE project? Can this case be considered exempt from EC Regulation 178/2002 which establishes the key principles of food legislation and the applicable European and national regulatory framework? Such an exemption – it is argued – could be justified by an extensive interpretation of the article at issue, or by virtue of a right to innovation and the need of regulatory experimentalism to fill regulatory gaps.

Exploring such questions can be done through traditional exchanges in formal meetings but also through more advanced forms of regulatory dialogue. For example, the possibility of strategic partnerships that establish a continuous dialogue between the consortium, stakeholders and policy-makers could be key to these aims. Currently, the AWARE consortium has also secured a Memorandum of Understanding with the municipality of Castellana Grotte and the regional water authority (Acquedotto Pugliese), granting the utilisation of local wastewater for the project scope, as well as with the ‘sister project’ SAFE⁷⁹, facing similar regulatory hurdles. Such spaces and arrangements could be venues to discuss best practices, gather knowledge and establish trust bonds. In addition, also the possibility of creating a ‘regulatory sandbox’ to respond to the project’s needs and fill regulatory vacuums, is being explored. The creation of trusted channels with regulatory authorities to exchange discussions about barriers and opportunities, and the exchanges with research and innovation projects facing similar challenges to those faced by AWARE are promising strategies to unlock the full potential of the project.

Differently from the Italian legislative context where the AWARE pilot is located, in other European jurisdictions, EU

⁷⁹ See <https://www.primasafe.eu/the-project/>.

Regulation 2020/741 has been transposed in a manner favourable to more extensive uses of wastewater. In particular, in Spain, Royal Decree 1085/2024 of October 22, 2024, transposes the Regulation on water reuse and amends various royal decrees governing water management in Annex I. It specifies the quality requirements for refined water intended for aquaculture, including the cultivation of aquatic animal and plant species, with the exception of filter-feeding molluscs. The Decree does not explicitly address hydroponics or aquaponics, but by allowing, subject to authorization, the use of treated water for agricultural irrigation and *fish farming*, it also seems to provide for the use of treated wastewater for aquaponics. In addition, the Decree establishes the possibility of providing for further applications for water reuse, provided that its quality and safety are guaranteed, ensuring the protection of public health and the environment. The administrative procedure to be followed to obtain authorization for such additional applications can also be taken as a model for Italy, in light of the provisions of Directive (EU) 2024/3019 on urban wastewater treatment, in particular Article 8 'Quaternary treatment' and Article 18 'Risk assessment and management', in which aquaculture sites using wastewater are listed as potentially risky for the environment and human health.

In France, Decree No. 2024-769 of July 8, 2024, authorizes the use of certain 'recycled' waters as an ingredient in the composition of final food products, provided that certain conditions are met. The decree was designed both to ensure water supply and to reduce the environmental impact of the agri-food industry. The decree also amends the Public Health Code by authorizing food companies to use certain recycled water as an ingredient; this applies to i) recycled water from raw materials and ii) water used during food preparation, processing, and storage operations, which is collected for reuse. The Decree also completes the regulatory framework for the production and use of wastewater generated by food companies and further treated. The Decree is accompanied by a ministerial decree defining the applicable quality requirements.

In conclusion, the regulation of aquaponics using refined wastewater and the suitability for human consumption of the resulting products would provide legal certainty for public and private entities interested in implementing aquaponic systems using refined wastewater. This would be a decisive step towards

water resilience especially in areas of Europe vulnerable to climate change and the promotion of new, more sustainable circular agri-food supply chains. The table below (Table 1) highlights the lessons that Italy – and other EU countries – can learn from the experience of Spain and France in implementing Regulation 2020/741.

Table 1 - Comparative lessons from legislative interventions on wastewater reuse in Spain and France

| Country | Legislative reference | Key insights for the AWARE project | Gaps if any | Lesson for Italian legislation | Other comments |
|---------|--|--|---|---|---|
| Spain | Royal Decree 1085/2024, of October 22, 2024, enacting the Regulations on water reuse and amending various royal decrees governing water management | Annex I.A the law specifies the Quality requirements for reclaimed water for aquaculture, including the cultivation of aquatic animal and plant species except filter-feeding molluscs. The law does not explicitly address hydroponics or aquaponics, but by allowing, subject to authorization, the use of treated water for agricultural irrigation and fish farming, it seems to also provide for the use of recycled wastewater for aquaponics. | Among the listed applications there is not explicitly aquaponics from wastewater, while it is foreseen the integration into industrial processes, in high-demand agricultural irrigation, in urban uses and for aquifer recharge. The Decree prohibits the use of reclaimed water for food businesses, except as provided for in Annex I.A. | In ensuring compliance with the EU Regulation 2020/741 additional water reuse applications can be foreseen, provided that quality and safety is guaranteed, ensuring the protection of public health and the environment. The precise administrative procedure for obtaining authorization for applications of reclaimed water can be taken as model to identify suitable procedures. | The scope of application of this regulation is broader than that established by Regulation (EU) 2020/741, which refers to reclaimed water intended for agricultural irrigation. The EU Regulation allows other uses beyond those envisaged in it. However, the provisions of Directive (EU) 2024/3019 on urban wastewater treatment should be considered in particular Article 8 Quaternary treatment and Art. 18 Risk assessment and management where aquaculture sites using wastewater are listed as potentially risky for the environment and human health. |

| | | | | | |
|--------|--------------------------------------|---|----------------|---|---|
| France | Decree n° 2024-769 from July 8, 2024 | Authorises the use of certain recycled water as an ingredient in the composition of final foodstuffs. Provided that all conditions are met, the new decree also authorizes “the use of certain recycled water as an ingredient in the composition of final food products.” The Decree is designed both to secure the water supply and to reduce the environmental impact of the agri-food industry. | Not identified | The decree amends the Public Health Code authorising food companies to use certain recycled water as an ingredient; this is the case for: I) recycled water from raw materials and II) recycled process water: water used during food preparation, processing and preservation operations, which is collected for reuse. It also completes the framework for the production and use of wastewater generated by a food business and further treated. | The Decree is accompanied by an Order defining the applicable quality requirements. |
|--------|--------------------------------------|---|----------------|---|---|

7. Experiences of sustainable innovation for the benefit of vulnerable communities and related regulatory approaches

In order to explore relevant experiences of sustainable innovation that benefitted vulnerable communities and related regulatory approaches, we investigated various initiatives⁸⁰,

⁸⁰ The applied method involved scrutinizing official reports, databases such PubMed, Google Scholar, ScienceDirect, and specialized agricultural research databases (e.g., from national ministries of agriculture and other government agencies involved in setting policies, the UN Food and Agriculture Organization website and the World Economic Forum). The search was purposive, guided by the discussed theoretical frame and the identified research questions. We used relevant keywords (e.g., agricultural technology, sustainable farming, food experimentalism, rural development, farmers empowerment) in conjunction with parameters like the country name to obtain pertinent information. The

targeting qualitative (farmers' perceptions on the benefits of implementing sustainable farming practices, attitudes or feedback on initiatives, and usability of the new technologies) and quantitative (crop yields, use of fertilizer, pest control methods and impacts on vulnerable communities) data. We selected the most relevant initiatives, addressing issues of food insecurity, the adoption of innovative technologies and regulatory experiences, with an eye of lessons that could be valuable for the EU context. We were particularly interested in looking at cross sectorial collaborations among local communities, governments and the private sector to identify creative governance and regulatory approaches to attain food security through just approaches. Hereafter we discuss some of the most interesting experiences.

In the case of the *Floating Gardens of Bangladesh* traditional hydroponic techniques known as floating vegetable gardens are being revived to combat food insecurity exacerbated by climate change. These floating gardens, constructed from aquatic weeds like water hyacinth and paddy stalks, provide a reliable source of food even during monsoons. With two-thirds of the country being wetland, many areas remain underwater for up to eight months annually. The practice of floating gardens, known locally as Dhap or Baira, dates back 300-400 years and is common in districts like Gopalganj, Barisal, and Pirojpur. The gardens, recognized by the United Nations (UN) Food and Agriculture Organization as a globally important agricultural heritage system, do not require soil, reducing plant diseases and weeds. They are low-cost and environmentally friendly, with inputs entirely natural and sustainable, and improved food security. The revival of floating gardens has been supported by various government and civic initiatives. These floating gardens exemplify resilience against flooding, providing sustainable agricultural practices while promoting social and epistemic inclusion. Exploring their impact reveals how traditional knowledge merges with modern techniques to enhance food security and environmental protection, and to foster community empowerment, demonstrating a scalable model for other flood-prone areas. The institutional setting of this case is community-led, it is deeply rooted in traditional ecological and

limitations of this confined study depends on time and available resources, significantly restricting the ability to offer a full picture of the field.

ancestral knowledge systems that have evolved over centuries. The initiative aligns with the Bangladesh Climate Change Strategy and Action Plan of 2009, which encourages adaptation and sustainable agriculture⁸¹. Scholars discussing the case emphasize the relevance of legislative frameworks that foster grassroots innovations, claiming that they empower local farmers and improve resilience to climate change. This approach is recorded in agricultural and development literature as both traditional and revitalized by non-governmental organizations (NGOs) and government initiatives focusing on food security and resilient livelihoods⁸².

The *e-Choupal initiative – India* established by the private company ITC Limited aims to bridge the gap between farmers and essential resources such as information, markets, and services through internet kiosks, thereby fostering agricultural entrepreneurship. The initiative yielded substantial benefits for vulnerable communities, particularly in terms of enhancing access to critical information, market prices, and agricultural inputs. This initiative supports smallholder farmers in remote regions by providing them with up-to-date information on crop prices, weather forecasts, and optimal farming techniques. In addition, by directly linking farmers with buyers through digital platforms, e-Choupal eliminates the need for intermediaries, ensuring equitable prices for farmers' products. Furthermore, e-Choupal facilitates the availability of high-quality inputs like seeds and fertilizers, leading to enhanced crop yields and increased revenue for vulnerable communities. The institutional setting of the case is it is a hybrid model that is primarily corporate-led by ITC Limited in collaboration with the local actors. At the State level, it is legally supported by the Agricultural Produce Marketing Committee Acts from early 2000s⁸³. Literature stresses how e-Choupal helps farmers to sustain their lives while giving them more influence in

⁸¹ See <https://faolex.fao.org/docs/pdf/bgd163540.pdf>.

⁸² H.Md. Irfanullah, A. Adrika, A. Ghani, Z.A. Khan & Md.A. Rashid, *Introduction of floating gardening in the north-eastern wetlands of Bangladesh for nutritional security and sustainable livelihood*, 2 Ren. Agri. & Food Syst. 89 (2008).

⁸³ J. Chaliha & S. Bhattacharya, *ITC e-Choupal – Innovation for Large Scale Rural Transformation: A Success Story*, Asia-Pacific Association of Agricultural Research Institutions/FAO RAP (2014), available at <https://www.apaari.org/wp-content/uploads/downloads/2015/01/E-Choupal-small.pdf>. See also <https://itforchange.net/sites/default/files/ITfC/e-Choupal.pdf>.

negotiations through access to markets and information⁸⁴. The regulatory opportunities and issues that come with these digital technologies show how important it is to have supporting laws that can help these initiatives thrive while making sure that all farmers have fair access to information and technology⁸⁵.

Seaweed farming - China and Korea posits that seaweed cultivation provides a multitude of advantages to vulnerable communities within the food sector. It serves as a sustainable source of income and sustenance for coastal populations, particularly in developing nations. Seaweed is abundant in nutrients and can be incorporated into a variety of food items, thereby bolstering food security and enhancing the nutritional intake of at-risk groups. Furthermore, seaweed farming promotes sustainable aquaculture methods, aids in the restoration of marine ecosystems, and generates employment opportunities for local communities, thereby bolstering their resilience and economic welfare. Seaweed farming leverages a range of technologies such as floating cultivation systems, automated monitoring devices, and processing equipment to optimize efficiency and productivity. The regulatory framework governing seaweed farming varies by country, encompassing regulations pertaining to farming licenses, environmental impact assessments, and food safety criteria. As noted by the FAO, China is legally supported by the Fisheries Law (1986, amended in 2000)⁸⁶. Korea is backed by the Law on the Promotion and Support of the Seaweed (Laver) Industry⁸⁷. Literature focuses on the balance of innovation and environmental sustainability, emphasising the importance of strong governance to enable the sector's growth, and regulatory experimentalism that facilitates the adoption of innovative technology and techniques in seaweed farming, resulting in more sustainable and resilient coastal

⁸⁴ G. Sharma & U.C. Swadimath, *Leveraging Technology for Inclusive Rural Development in India: Assessing the Impact of Digital Interventions on Socio-Economic Growth in Rural Communities*, in T. Manickam et al. (eds.), *Addressing B5G and 6G Network Connectivity Issues in Rural Regions* (2025).

⁸⁵ R. Chand, *Agricultural challenges and policies for the 21st century*, 2 NABARD Res. & Pol. Ser. 36 (2022).

⁸⁶ See https://www.fao.org/fishery/en/countrysector/naso_china.

⁸⁷ See https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/aquainvest-platform/documents.entry.html/2024/05/09/republic_of_korea-lawonthepromotionandsuppo-GFg3.html.

economies⁸⁸. Furthermore, authors also point to the gender dimensions of seaweed cultivation speaking of ‘feminist seaweed cultures’ which acknowledges environmental ethics and entanglements between humans and seaweeds in feminist practices⁸⁹.

Sistema Biobolsa - Brazil, Kenya, India, Indonesia, and Mexico proposes to innovate the agricultural sector by providing cutting-edge biogas systems that enable farmers to convert organic waste into renewable energy and organic fertilizer⁹⁰. This system not only enhances agricultural productivity but also reduces greenhouse gas emissions and advocate for sustainable farming practices. Through the utilization of Sistema Biobolsa’s technology, farmers can optimize food production while minimizing their environmental footprint⁹¹. Sistema Biobolsa offers cost-effective biogas systems to small-scale farmers, thereby fostering sustainable agriculture and entrepreneurship. It represents a sustainable and effective method of waste management while harnessing clean energy and enhancing agricultural productivity. The initiative functions across diverse legal systems, from Brazil’s National Solid Waste Policy (Law 12.305/2010)⁹² promoting biogas technologies, to Kenya’s Climate Change Act of 2016 encouraging clean energy adoption⁹³. In India, the Ministry of New and Renewable Energy introduced subsidies for installing small and medium-sized biogas plant⁹⁴. Researchers emphasise the socioeconomic advantages of biogas technology for rural populations, such as enhanced livelihoods and a decreased need on conventional fuels⁹⁵.

⁸⁸ L. Zhang et al., *Global seaweed farming and processing in the past 20 years*, 4 Food Production, Processing and Nutrition 23 (2022).

⁸⁹ C. Elgh, *Feminist Seaweed Cultures: Algae as Tool for Reshaping Aquatic Relationships Between Humans and Oceans*, 38 J. of Agri. & Env’t Ethics, 12 (2025).

⁹⁰ See <https://sistema.bio/>.

⁹¹ See <https://oikos-international.org/sistema-biobolsa-addressing-challenges-of-climate-change-sustainable-agriculture-and-waste-management-in-mexico/>.

⁹² See <https://braziliannr.com/brazilian-environmental-legislation/law-no-12305-brazilian-national-policy-solid-waste/>.

⁹³ See https://climate-laws.org/document/climate-change-act-2016_7078.

⁹⁴ Ibid.

⁹⁵ F. Rodríguez, *Contested resources and south-south inequalities: What Sino-Brazilian trade means for the “low-carbon” bioeconomy*, in M. Backhouse et al. (eds.), *Bioeconomy and Global Inequalities: Socio-Ecological Perspectives on Biomass Sourcing and Production* (2021); see also

In *Productive Safety Net Programme (PSNP) - Ethiopia*, we can see a high involvement of the government in assisting its citizens to address poverty, food insecurity, environmental issues and climate change, through immediate relief measures complemented with strategies aimed at fostering sustainable development. The PSNP, launched in 2005, is a pioneering social protection initiative aimed at addressing chronic food insecurity and poverty among vulnerable rural populations. Its primary objectives are to provide immediate relief from hunger and to enhance long-term resilience and economic stability. The PSNP targets households that are prone to food shortages especially during the lean season, ensuring they receive timely and predictable support either through direct food transfer or cash payments. Direct support provides unconditional transfers to the most vulnerable groups, such as the elderly, disabled, and pregnant or lactating women, who are unable to participate in labour-intensive activities. The public works component engages able-bodied individuals in labour-intensive projects designed to build community assets and improve local infrastructure. These projects include soil and water conservation activities, road construction, irrigation schemes, and reforestation efforts. A key aspect of the PSNP is its alignment with Ethiopia's broader development strategies. The program is supported by a combination of government funding and international aid, requiring it to operate within a complex national and supranational regulatory landscape. PSNP operates under a strong institutional framework coordinated by the Ethiopian government, with significant financial and technical support from a consortium of development partners⁹⁶. A study on the initiative demonstrated that those households that joined the PSNP improved their food consumption, livestock holding, housing conditions, and agricultural input utilization⁹⁷. However, the same study revealed little community participation in the decision-making, payment

https://assets.publishing.service.gov.uk/media/5ab4d869ed915d78b9a459bf/TVC_Prioritisation_Report_final_to_DFID.pdf.

⁹⁶ See https://www.climatepolicyinitiative.org/gca-africa-adaptation-finance/case_studies/productive-safety-net-program-psnp-ethiopia-2/.

⁹⁷ K. Kassaw & M. Worku, *The contribution of productive safety net program for households food security and asset building in drought prone woredas of northeast Ethiopia*, 3 Heliyon (2024).

delays, poor consideration of gender matters and difficulties in the planning processes⁹⁸.

Kenya is currently experiencing a transformative agricultural revolution driven by digital farming platforms such as *DigiFarm*, *M-Farm*, and *FarmDrive - Kenya*, by leveraging technology to enhance productivity and sustainability for smallholder farmers. These platforms offer several services that address various challenges faced by farmers, including access to markets, finance, information, and inputs, thereby boosting food security and economic growth. Digital farming platforms provide an integrated suite of services through mobile applications. The farmers have experienced great impacts and benefits from the introduction of digital platforms such as increased productivity; by providing timely and accurate information, digital platforms help farmers optimize their farming practices, resulting in higher yields and better-quality produce. Economic empowerment through access to fair markets and financial services empowers farmers economically, enabling them to invest in better inputs and expand their operations. These platforms promote sustainable farming practices by providing advice on soil health, water conservation, and integrated pest management, contributing to environmental conservation. However, challenges such as digital literacy, internet connectivity, and initial setup costs remain: to overcome these, continuous investment in infrastructure and education is essential. Kenya's AgriTech platforms are supported by a national framework focused on tech and agriculture integration (under the 'Vision 2030' strategic plan⁹⁹). Institutional support is primarily driven by private sector-led initiatives (mobile network operators Safaricom, investors, financial partners etc.) and collaborations with the Ministry of Agriculture¹⁰⁰. Scholars advance a warning, as it is argued that open agri-food data projects tend to reproduce elements of 'data colonialism' extracting data with little consideration for the collective harms that may result, and embedding private-oriented values within universalizing

⁹⁸ Ibid.

⁹⁹ See <https://vision2030.go.ke/about-vision-2030/>.

¹⁰⁰ See <https://www.safaricom.co.ke/media-center-landing/press-releases/safaricom-s-spark-fund-backs-agricultural-analytics-startup>.

information infrastructures¹⁰¹. Literature also stresses how specifically in Kenya, a hub for digitalization on the African continent, data policy favours personal privacy while overlooking collective risks for smallholder farmers¹⁰². Such studies push for a regulatory framework that protect farmers' rights and fosters participatory data governance, addressing existing power imbalances as Kenya's digital agriculture is indeed influenced by private firms¹⁰³. Overall, strong data-sovereignty rules and impact assessments are needed for better regulations in the field¹⁰⁴. Grey literature underlines the potential of innovation in the digital agricultural sector for Kenyan youth's employment¹⁰⁵.

The *Greenhouse Village initiative - Cameroon* aims to promote sustainable agriculture by providing smallholder farmers with access to greenhouse technology. This initiative supports farmers in adopting modern farming methods, increasing crop yields, and strengthening food security, so that they are able to better regulate environmental conditions, optimize water usage, and protect crops from pests and diseases. The Greenhouse Village initiative also focuses on educating farmers on greenhouse management practices and connecting them with markets to improve their income and livelihoods. It presents a promising solution to enhance agricultural productivity and food security in the region. Vulnerable communities can access greenhouse technology through various channels such as charities operating in the agricultural sector, government initiatives promoting sustainable farming practices, and partnerships with private companies specializing in greenhouse technology. These avenues can provide training, resources, and support to help vulnerable communities adopt and benefit from greenhouse technology in Cameroon. Cameroon's agricultural policies and legal framework, including the Agricultural and Rural Development Strategy (2006–2015), foster

¹⁰¹ M. Fairbairn & Z. Kish, *Setting data free: The politics of open data for food and agriculture*, 8 *New Media & Soc.* 1935 (2023).

¹⁰² M.C. Canfield & B. Ntambirweki, *Datafying African agriculture: from data governance to farmers' rights*, 67 *Development* 5.

¹⁰³ *Ibid.*

¹⁰⁴ N.O. Okeyo, *Legal Prospects for Achieving Epistemic Data Justice for Rural Women in Tanzania and Kenya*, L 4 *J. of Intell. Prop. & Info. Tech. Law* 205 (2024).

¹⁰⁵ See <https://www.nepad.org/blog/enhancing-digital-agriculture-strengthen-entrepreneurial-opportunities-kenyan-youth>.

innovation through public-private partnerships. Institutional support for technology transfer aligns with national priorities for sustainable food production¹⁰⁶. Grey literature notes how greenhouse ventures boost productivity and impact community livelihoods; however, clear guidelines and protections for land use, labour management and valorisation of local knowledge are essential¹⁰⁷.

Farmcrowdy - Nigeria is a revolutionary digital platform that serves as a bridge between farmers and investors, revolutionizing the way agricultural projects are funded. By utilizing cutting-edge technology, Farmcrowdy connects small-scale farmers in Nigeria with investors who are willing to provide financial support for various farming initiatives. This approach not only empowers farmers by giving them access to the needed funding and resources but also helps to improve their productivity and overall quality of life. The initiative is a hybrid approach with government and private institutions supports. It is legally backed by the Nigeria Start up Act of 2022, and on the Companies and Allied Matters Act of 2020¹⁰⁸. Literature holds that digital agri-tech platforms – such as the discussed one – must ensure inclusive participation, equitable benefit-sharing, data sovereignty, and local capacity-building so that technological progress empowers farmers rather than reproduces dependency or ‘data colonialism’¹⁰⁹.

Farm Africa is an organization that is committed to support farmers in East Africa to improve their agricultural practices, boost crop production, and strengthen food security in the region. The organization provides a wide range of services, including training, resources, and assistance to small-scale farmers, with a special emphasis on empowering women in sustainable food production and income generation. In order to function efficiently, Farm Africa must adhere to the regulatory framework that governs their

¹⁰⁶ See <https://farmersreviewafrica.com/cameroonian-entrepreneur-leverages-climate-smart-greenhouses-to-stabilize-food-prices-amid-hikes/>.

¹⁰⁷ See <https://www.downtoearth.org.in/africa/africas-climate-adaptation-camerouns-emerging-mosaic-of-resilience-stands-out> and <https://ldn-advisory.com/our-projects/cameroon/>.

¹⁰⁸ See <https://startup.gov.ng/> and <https://www.cac.gov.ng/wp-content/uploads/2020/12/CAMA-NOTE-BOOK-FULL-VERSION.pdf>.

¹⁰⁹ M. Fairbairn & Z. Kish, *Setting data free: The politics of open data for food and agriculture*, cit. at 102.

operations, ensuring compliance with local agricultural laws and regulations in the countries where they operate. This entails following government policies on farming methods, land use, environmental conservation, and food safety standards. By adhering to these regulations, Farm Africa is able to effectively implement their projects while upholding legal and ethical standards. Furthermore, their initiatives must align with government policies and international development regulations to ensure transparency and accountability in their work. The impact of Farm Africa's projects on local communities in East Africa appears to be significant. Farm Africa operates within multiple national legal systems emphasizing agricultural modernization and rural development. The interventions must align with the host countries' policies on environmental management, land use, and sustainable agriculture, ensuring compliance and accountability across jurisdictions¹¹⁰. Farm Africa can be considered inserted within a governance trend that prioritizes farmer participation and open innovation in East Africa, which – according to literature – would prioritize private innovation, production, efficiency, and individual empowerment, in contrast to collectivist approaches to openness typical of agri-food social movements¹¹¹.

eVuna - Tanzania is a platform, which is revolutionizing the lives of smallholder farmers in East Africa by providing a wide range of crucial services, such as information, resources, access to credit, and market opportunities. With a user base of over a hundred thousand farmers actively engaged on the platform in East Africa, eVuna has empowered them to access valuable insights, obtain high-quality inputs, and connect with profitable markets, resulting in increased productivity and financial security. Over the past year, farmers using eVuna secured funding exceeding one million dollars, leading to an 80% increase in crop yields and a \$600 rise in revenue per farmer. These tangible results demonstrate the effectiveness of eVuna in fostering positive change and prosperity within the agricultural sector across Africa. The platform is primarily a private sector initiative but also collaborates with Tanzania's institutional framework, under the National ICT Policy

¹¹⁰ See <https://www.farmafrica.org/wp-content/uploads/2024/06/farm-africa-annual-report-financial-statements-2022.pdf>.

¹¹¹ M. Fairbairn & Z. Kish, *Setting data free: The politics of open data for food and agriculture*, cit. at 102.

(2016) and Agricultural Sector Development Programme (ASDP II), which support the integration of digital tools in agriculture¹¹². Literature discussing digital innovation in Tanzania's agricultural sector points to the need of addressing epistemic data injustices especially experienced by rural women in this context¹¹³.

Despite the outlined challenges, the discussed examples underscore the potential of innovation in the agri-food sector in Global South experiences, which are often backed by supportive institutional and regulatory frameworks. While North-South partnerships are frequently criticized for intensifying disparities, these cases shed light on the promises of South-South collaboration as a viable and equitable option. Experiences from Mediterranean countries located in the 'South of the North' such as the Puglia Region, Italy, should look at the presented lessons with interest. Table 2 included as annex to this article offers a comparative overview of the discussed initiatives analysed along relevant dimensions. Paragraph 8 that follows offers a comprehensive discussion of the studied cases in light of the research objectives.

8. Discussion: a just approach to experimentalism in the agri-food sector

The cases presented responds to calls that emerged in the literature, including from the Global South, to "reshape agrifood systems in ways that prioritize the marginalized, democratize access to technology, and foster an equitable distribution of benefits"¹¹⁴. Technology and innovation in these cases have been deployed to promote an inclusive rural transformation that considered and tackled the specific vulnerabilities of local communities¹¹⁵. In essence, these interventions have been leveraged as tools for social justice and environmental sustainability embracing a "model of development that is

¹¹² See

<https://openknowledge.fao.org/items/3c968a7c-f4c0-425e-82f1-672fac00bf48>.

¹¹³ N.O. Okeyo, *Legal Prospects for Achieving Epistemic Data Justice for Rural Women in Tanzania and Kenya*, cit. at 105.

¹¹⁴ P. Lidder, A. Cattaneo & Mona Chaya, *Innovation and technology for achieving resilient and inclusive rural transformation*, 44 *Glob. Food Sec.* (2025), 100827.

¹¹⁵ *Ibid.*

participatory, equity-sensitive and gender-responsive”¹¹⁶. Recalling the critique on techno-solutionism discussed at the opening of this article, we echo literature arguing that quick technological fixes will not attain these outcomes, as there is the need to support long-term processes that “incorporate critical inputs from local and traditional knowledge and are underpinned by supportive policies, and social and institutional reforms”¹¹⁷.

The initiatives described can be analysed through the lens of the ‘capabilities approach’ – drawing on the work of Elinor Ostrom, Marta Nussbaum, Amartya Sen, Mariana Mazzucato, and Elias Carayannis, *inter alia* – a normative frame that posits that well-being can be understood in terms of human capabilities and their ability to function in contexts. The approach focuses on the *freedom to achieve well-being* as a matter of what people are able to do and to be. The daily and very situated cases discussed are useful to show the capability of communities, social actors and institutions to innovate when exposed to stressors and resources scarcity. One recurring theme both of the AWARE project and the discussed initiatives is the capability to turn a challenge – like food insecurity – into an opportunity for more sustainable agricultural and consumption approaches. Most initiatives reviewed do so through community and cross-sectorial engagement. They mobilise technological innovations with a primary ‘just’ objective, e.g., to tackle food insecurity, food waste and social vulnerability. Some of these initiatives show an epistemic justice dimension, integrating traditional knowledge with cutting-edge technology. Other initiatives just repurpose ‘simple’ existing technologies in view of new applications.

Several initiatives had tangible practical impacts for the engaged actors and visible economic benefits, some of which attained through strategic partnerships between governments, innovators and communities. To sustain such partnerships, the initiatives reviewed experimented with governance models such as community ownership in cooperative models, mission-oriented enterprises, and public-private partnerships. Some initiatives are aimed at short-term relief efforts, opposing others’ long-term, sustainable development objectives. In both cases, the capabilities

¹¹⁶ Ibid.

¹¹⁷ Ibid.

of the beneficiaries are strengthened and activated for their greater agencies. Some initiatives show government and donor-led approaches contrasting with models that advocate for private sector-led investment or with community-based enterprises, differently from the AWARE project whose business model is dependent on EU funding for research and innovation.

Most of the initiatives experienced regulatory disconnects and had to deal with regulatory challenges, some of which turned these challenges into an opportunity, as occurring for the AWARE project. Other challenges include lack of access to technology, limited market access for the innovation, digital divide and limited internet connectivity in rural areas, resistance to changing traditional agricultural practices, infrastructural challenges impacting transportation and logistics, political instability affecting agricultural operations, conflicts over land ownership, hurdles in scaling up the initiative to reach more farmers in remote areas etc.. Navigating these challenges is crucial for the success and sustainability of these initiatives in effectively engaging vulnerable communities and promoting development.

9. Conclusion and ways ahead

The article contributed to disentangling the concept of 'Just Sustainable Innovation' discussed in this broader special issue highlighting the dimension of regulatory experimentalism and stakeholder engagement for a pluralistic governance of innovation, that benefit vulnerable communities specifically in the field of innovation in the agri-food sector. We reviewed real-world cases of projects from various 'Souths' understood as a multiplicity of places particularly stressed by climate change which is also causing food insecurity and water scarcity. Embracing critiques to techno-solution, we looked at situated innovation that went beyond being purely technological. For example, we looked at innovation including through technology that leveraged collective enterprises, strategic partnerships, epistemic pluralism, and a constructive and participatory approach to facing regulatory challenges.

As the theory reviewed suggests, regulation is inherently pluralistic and should encompass the plurality of actors currently engaged in facing the challenge of attaining food security and addressing water scarcity. Situated practices of resistance to

regulatory lock-ins should be devoted attention with the aim of integrating the capabilities of the actors on the ground in effective regulations. We propose to do so through a *co-design* approach, that can boost rather than restrict participatory spaces for the advancement of agri-food innovation. The shaping of agri-food policy and regulation should acknowledge the centrality of vulnerable communities, with their knowledge, visions, and practical needs, in order to ensure their access to the benefits arising from innovation and to adapt innovation to local needs.

We advise for a *co-governance* of the challenges associated with food insecurity and water scarcity based on collective stewardship, shared decision-making, community engagement, and equitable resource distribution as the way forward. This approach could be framed in legal terms in a 'right to innovation through experimentalism' that entails not only access to innovation but also an opportunity to participate in shaping such innovation processes. The right should entail active stakeholder involvement both in envisaging innovation but also in its implementation and regulation. We posit that also the co-design of the enabling infrastructures and processes, both material and immaterial, should be conceived in light of ensuring that diverse perspectives, knowledge systems and expertise are included and valorised in the regulatory outcome. We invite future research to engage with this promising concept, explore it across EU regulatory experiences, and compare it with practices from the Global South, building on existing comparative studies of transnational administrative law in the context of regulating innovation.

Annex - Table 2 - Comparative overview of reviewed initiatives from the 'Global South'

| Name of the initiative | Location | Typology | Institutional Variable | Strategic partnerships | Sustainable funding | Community-based initiative | Partnership with vuln. communities | Reg. pluralism | Tech. advancement | Reg. experimentalism |
|----------------------------|------------|--|--|------------------------|---------------------|----------------------------|------------------------------------|----------------|-------------------|----------------------|
| PSNP | Ethiopia | Program and network | Government coordinated framework with donor support | X | | X | X | X | X | X |
| Digital Farming | Kenya | Market relevance; Technological advancement | Private-public digital initiatives; backed by Vision 2030 and Data Protection Act (2019) | X | X | | X | | X | X |
| Floating Gardens | Bangladesh | Cultivation method; Community-based initiative | Grassroots initiative rooted in traditional knowledge; supported by BCCSAP (2009) | | X | X | X | | X | X |
| Greenhouse Village Farming | Cameroon | Community-based network; Collaborative initiative; Sustainable farming | Public-private agricultural innovation under Rural Development Strategy (2006-2015) | | | X | | X | X | X |

| | | | | | | | | | | |
|---------------------|--|---|--|---|--|---|--|---|---|---|
| e-Choupal | India | Digital agricultural platform; Rural empowerment; Supply chain innovation | Corporate-community hybrid model; enabled by APMC Acts (early 2000s) | X | | | | X | X | X |
| Seaweed farming | China Korea | Sustainable harvesting | Regulated by Fisheries Law (1986/2000) and Law on Seaweed Industry | | | | | | X | X |
| Farmcrowdy | Nigeria | Agri-business network; Crowdfunding platform | Public-private model; supported by Start-Up Act (2022) and SEC Rules on Crowdfunding | X | | X | | | X | X |
| Farm Africa Project | East Africa | Community based agriculture; Capacity-building program | NGO network aligned with national agricultural and environmental policies | X | | X | | X | | X |
| Sistema Biobolsa | Brazil, Kenya, India, Indonesia, and Mexico | Sustainable farming; Renewable energy solutions | Supported by national clean-energy laws (e.g., Brazil Law | | | X | | X | X | X |

| | | | | | | | | | | |
|-------|----------|----------------------------------|--|---|--|---|--|--|---|---|
| | | | 12.305/2010; Kenya Act 2016) | | | | | | | |
| eVuna | Tanzania | Food security; Social venture | Private-sector digital platform; aligned with ICT Policy (2016) and ASDP II | X | | X | | | X | X |

LEGAL FRAMEWORKS ENABLING NOT FOR PROFIT AND
DECENTRALISED RENEWABLE ENERGY COMMUNITIES.
CASES FROM THE EU & ECOWAS

*Elena De Nictolis**, *Alberica Aquili***, *Benedicta Quarcoo****

Abstract

The article explores the energy transition in the EU and Africa. It deepens the research hypothesis of whether a commons-based approach can be an effective strategy to ensure energy justice and energy poverty. This article therefore aims to explore the potential of community-led energy initiatives, such as energy communities. It then focuses on the European Union and ECOWAS, to open a vision of the North and South of the world, analyzing their energy policies and deepening through an empirical analysis three case studies as virtuous examples of not profit renewable energy production at the local level: Middelgrunden Offshore Windmill Cooperative, in Denmark, Melpignano Cooperative, in Italy and Bboxx Energy, in Togo.

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1. Introduction

There has been a remarkable proliferation of contemporary studies devoted to the socio-economic implications arising from legislation and policies on the climate and energy transition. This growing body of writing is visible in academic fields of policy and law, as well as in activism and civil society. The debate focuses on energy poverty, democracy, and energy justice.

For an equitable energy system, the literature argues that climate and energy transition policies must incorporate concerns of equity and justice. In line with this view, recent and ambitious clean-energy and climate policy objectives promote collaboration within local communities and the spread of collaborative governance schemes at the city level. In recent years, examples have emerged of self-organization within local communities – often enabled by urban public policies – to produce renewable energy or build energy-security infrastructure. These fall under the category of community energy, or energy communities.

This article conducts an exploratory analysis of European and ECOWAS clean-energy policies to offer a reflection comparing how the two supranational organizations address energy poverty and ensure equity and justice. It also seeks to clarify the issues that arise concerning decentralization and local energy generation.

2. Energy Poverty

Energy poverty is broadly defined as the inability of one household to afford a basic basket of energy services. Cooking warm meals, heating, and cooling one's home are all parts of a basic basket of energy services. Another, widely accepted, feature of it is when a household is able to afford the cost of their energy needs, only by way of sacrificing a - socially unacceptable - portion of their income. This portion of income would otherwise be used to purchase goods and services that are fundamental for human dignity or for the protection of the elderly and children, such as housing, food, or health care. This condition is sometimes defined as energy vulnerability¹, 'fuel poverty'², 'energy deprivation', 'consumer vulnerability'. These terms are often used interchangeably.

Advocacy and scholarly concern for the problem of affordability of energy services first emerged in the late seventies in the United Kingdom³. Labelled as fuel poverty, the problem was the affordability of heating during winter. The problem was so dramatic that led to the phenomena of 'excess winter deaths'⁴.

Around early 2000, the term energy poverty, referring to the availability and affordability of basic energy services, emerged as a policy and scholarly concern also the global governance literature, focused on issues affecting developing economies' countries⁵.

In the broader European policy arena, the issue of energy

¹ K. Bickerstaff, G. Walker & E.H. Bulkeley, *Introduction: making sense of energy justice section*, in K. Bickerstaff, G. Walker & E.H. Bulkeley, *Energy Justice in a Changing Climate* (2013).

² B. Boardman, *Fixing Fuel Poverty: Challenges and Solutions* (2010).

³ B. Boardman, *Fuel Poverty: From Cold Homes to Affordable Warmth* (1991).

⁴ J. Hills, *Fuel Poverty: The Problem and Its Measurement* (2011).

⁵ K. Li, B. Lloyd, X.J. Liang & Y.M. Wei, *Energy Poor or Fuel Poor: What Are the Differences?*, *Energy Policy*, 476 (2014).

poverty as a social policy problem was first addressed by EU secondary law in 2009, as we will see later in this paper. Today, the issue is embedded into the broader EU policy landscape of climate change mitigation and adaptation.

Why is energy poverty a distinct problem⁶ and not merely a feature of poverty. The lack of access to energy sources and services, especially clean, renewable ones, infringe on human, social, and economic rights such as the right to life, food, health, and education. Furthermore, energy poverty has implications on a person's human, social and economic rights. Cooking with polluting fuels like charcoal, coal, crop waste, dung, and kerosene in lieu of electricity, gas, and other sources produces serious health consequences, such as pulmonary diseases. Lack of access to energy means a lack of access to lighting, tools for purifying water, to mechanical power for transportation and agriculture⁷. Deprivation of basic energy services damages physical health. It hampers children's development and mental health, by contributing to one's social isolation. This lack of access can be due to unavailability or unaffordability of energy. In developing economies, vulnerable communities are affected by infrastructure coverage problems and unequal access to energy sources, although scholars urge caution when generalizing and suggesting a relative and contextualized understanding of energy poverty.⁸ In developed economies, energy poverty has to do with affordability of energy itself and of related technologies such as heating and cooling appliances (eg. cost of an Air Conditioning Unit). Energy efficiency technologies (for example smart homes technologies) can lower the impact of energy use on electricity bills; however, they are expensive in and of itself.

Energy poverty has a cumulative impact. Low-income households whose home is also not energy efficient consume more energy - to meet the same needs - compared to someone who lives in an energy-efficient home. This is a hidden problem of energy policy, as those who do not have access to energy-efficient homes will end up using more of their income to pay for energy. The same household will struggle to afford the cost of the interventions needed to achieve greater energy efficiency. Therefore, even if

⁶ J. Hills, *Fuel Poverty: The Problem and Its Measurement* (2011).

⁷ L.D. Guruswamy, *Global energy justice: law and policy* (2016).

⁸ S.A. Sy & L. Mokaddem, *Energy poverty in developing countries: A review of the concept and its measurements*, *Ener. Res. & Soc. Sc.*, 89 (2022).

interventions in the house could lower the cost of energy bills, the affordability of such interventions makes it impossible to access the benefits of energy efficiency technologies.

According to recent estimates by the International Energy Agency, "Some 75 million people who have only recently gained access to electricity are at risk of losing the ability to pay for it and 100 million people could return to using traditional biomass for cooking." Globally, about 5 billion people live in areas with significant space cooling needs, but only a third of households, mostly concentrated in advanced economies, have access to an air conditioner.⁹

Vulnerable low-income households that are unable to afford the amount of energy needed to meet their heating and cooling needs are inflicted with health damage, including cardiovascular and respiratory diseases, mold-related illnesses, mental and psychological health, due to social isolation and the development of depression. Being exposed to unhealthy temperatures for long periods also contributes to chronic diseases that affect children's development¹⁰.

The consequences of energy vulnerability and poverty are uneven. Regional differences in affordability of energy services are significantly high¹¹. Differences in access deficit between urban and rural areas are also significant¹²

Although there is no standard measurement for energy poverty, several indicators for energy poverty are available: Low Income High Cost (LIHC) which refer to a high level of energy expenditure combined with an income below the poverty line; high share of energy expenditure in relation to income (percentage of the population whose share of income devoted to energy expenditure is more than twice the national median, low absolute energy expenditure, percentage of the population whose energy expenditure is less than half the national median value; energy expenses, income quintile; high level of energy expenditure; extent

⁹ *World Energy Outlook 2022*, IEA (2022). <https://www.iea.org/reports/world-energy-outlook-2022>.

¹⁰ K. Fabbri & J. Gaspari, *Mapping the energy poverty: A case study based on the energy performance certificates in the city of Bologna*, *Ener. and Build.*, 234, 2 (2021).

¹¹ *Tracking SDG 7: The Energy Progress Report*, 6 (2022).
<https://trackingsdg7.esmap.org/downloads>.

¹² *Tracking SDG 7: The Energy Progress Report*, cit. at 11, 7.

of share of energy expenditure in income, for the population in the first income quintile¹³. Energy poverty affects an estimated 1.3 billion people worldwide, particularly in developing countries and marginalized communities. Globally, one in five people do not have electricity to meet basic needs such as cooking, lighting and heating their home¹⁴. This problem is characterized by a lack of access to affordable, reliable and sustainable energy sources, resulting in a significant impact on the quality of life, health and economic opportunities of affected individuals and communities. Energy poverty is a critical aspect of energy injustice that requires immediate attention and decisive action. In the context of energy poverty, renewable energies linked to projects involving local communities are the main tools for redesigning the face of energy both in the north and south of the world¹⁵.

Energy communities and other kinds of community-led initiatives provide some relief to energy poverty problems. These initiatives enable local communities to take control of their energy needs and resources, promoting energy autonomy, sustainability and social justice, ensuring access to energy even for the most vulnerable communities who bear the brunt of energy sector challenges.

3. Research Hypotheses and Methodology

Energy poverty is often associated with a combination of factors, including insufficient income, high energy prices, low energy efficiency of homes, or costly infrastructure for heating or cooling. This situation worsens due to population growth and climate-related impacts requiring more warming in winter and cooling in summer¹⁶. While the energy transition makes tackling the fight against climate change possible, it can also risk negatively impacting energy

¹³ A. Fiorini, *Contrastare la povertà energetica per una transizione inclusiva ed equa*, *Ener., Amb. e Innov.*, 2, 72 (2022).

¹⁴ M. Bongioanni, *Energy poverty, what it consists of and what can be done to combat it*, *LifeGate* (2023).

¹⁵ P.K. Adom, F. Amuakwa-Mensah, M.P. Agradi & A. Nsabimana, *Energy poverty, development outcomes, and transition to green energy*, *Renewable Energy*, 178, 1337-1352 (2021).

¹⁶ S.A. Churchill, R. Smyth & T. Trinh, *Energy poverty, temperature and climate change*, *Energy Economics*, 114 (2022).

poverty. On one hand, the increase in upfront energy costs and the installation of sustainable energy technologies such as solar panels, wind farms or more efficient heating systems may require significant upfront investments. Low-income households may be unable to cover these upfront costs and, therefore, remain excluded from access to the most efficient technologies. On the other hand, as energy costs rise, it may be necessary to invest in more advanced or sustainable electricity grid infrastructure or charge higher tariffs to finance renewable energy production. These cost increases could disproportionately affect low-income households, increasing their energy poverty.

Another impact could be to generate unemployment in the fossil fuel sector: the energy transition often leads to a decrease in dependence on fossil fuels, which can harm communities that are economically dependent on these industries. Job losses in fossil fuel-related sectors can, therefore, increase poverty in affected areas¹⁷. To mitigate these negative impacts, it is hence essential to embrace, on the one hand, the issue of energy justice and that of energy democracy. In particular, the idea that energy and democracy go hand in hand has become much more popular since 2010. The emergence of energy democracy is linked to the increased uptake of widespread and small-scale renewable energy sources. Energy democracy refers to increased community involvement in resource governance and energy policy¹⁸. Energy justice assesses where injustices emerge, which layers of society are ignored, and what processes exist to reveal and reduce those injustices¹⁹.

In this context of energy poverty, renewable energy linked to projects involving local communities is the primary tool for redesigning the face of energy systems to combat energy poverty. This paper explores whether community-based energy solutions that draw in particular on the theories of Elinor Ostrom, Sheila Foster, and Christian Iaione can serve as a viable response to these two challenges.

¹⁷ D. Streimikiene & G.L. Kyriakopoulos, *Energy poverty and low-carbon energy transition*, *Energies*, 16, 610 (2023).

¹⁸ M. Wahlund & J. Palm, *The Role of Energy Democracy and Energy Citizenship for Participatory Energy Transitions: A Comprehensive Review*, *Ener. Res. and Soc. Sc.*, 87 (2022).

¹⁹ K. Jenkins, D. McCauley, R. Heffron, H. Stephan & R. Rehner, *Energy Justice: A Conceptual Review*, *Ener. Res. and Soc. Sc.*, 11, 174-182 (2016).

Ostrom studied the concept of polycentricity of scarce resources, delving into the dynamics of the management of common resources, i.e. common goods, such as water resources, focusing on local communities and decentralized forms of governance²⁰. Ostrom stressed the importance of a polycentric perspective to address the challenges related to the management of common resources, promoting collective action, co-ownership, and co-management of these resources²¹. Ostrom explains that in most cases, it is more efficient for users to co-manage resources rather than have government policies that do so, which often accelerate resource depletion. It has shown that common resources can be managed effectively through self-organization through cooperatives or user associations rather than centralized regulation²². To achieve a sustainable socio-ecological system, Ostrom identifies several principles and factors that contribute to the success of polycentric management of common resources, including the presence of clear and community-accepted rules, the participation and engagement of community members in decision-making, the monitoring and enforcement of regulations by the community itself, and the presence of local and effective conflict resolution mechanisms²³. Iaione and Foster then applied commons co-governance to urban areas to understand how to make cities collaborative and centers of innovation²⁴. Analyzing more than 500 case studies in 150 cities, they developed the Co-City Protocol, an index based on five design principles that create the conditions necessary to rethink the city as a common good. The five principles are the enabling state, social and economic pooling, urban experimentalism, technological justice, and the quintuple helix²⁵. The enabling state refers to the role of public authorities as enabling platforms for cooperation with other urban actors. Social and economic pooling is aimed at

²⁰ E. Ostrom, *Beyond markets and states: polycentric governance of complex economic systems* (2009).

²¹ E. Ostrom & C. Hess, *Understanding Knowledge Common* (2010)

²² P.K. Andersson & E. Ostrom, *Analyzing decentralized resource regimes from a polycentric perspective*, *Policy sciences*, 41, 71-93 (2008).

²³ M.D McGinnis & E. Ostrom, *Social-ecological system framework: initial changes and continuing challenges*, *Ecology & Soc'y*, 19.2 (2014).

²⁴ S.R. Foster & C. Iaione, *Co-cities: Innovative transitions toward just and self-sustaining communities* (2022).

²⁵ C. Iaione, *The CO-City: Sharing, collaborating, cooperating, and commoning in the city*, *Amer. Jour. of Econ. and Soc.*, 75.2, 415-455 (2016).

including non-profit organizations, cooperatives, voluntary associations, and other forms of social enterprise to produce goods and services to bring social benefits rather than profits, based on principles of solidarity, cooperation, and community participation. It involves sharing resources among community members to promote more efficient use of resources.

Urban experimentalism is the approach taken to urban processes in this model. Technological justice enables the community's access to technology and digital infrastructure, which is sometimes managed by the community to develop neighborhood services. Finally, the quintuple helix characterizes the process of co-governance in the management of a common good that must be based on the interaction between the five urban actors (so-called five helixes): civic actor (innovative communities and active citizens), social actor (third sector organizations); cognitive actor (cultural institutions, schools, and universities); public actor (public institutions); private actor (responsible companies and industries that rely on local vocations)²⁶. Therefore, using the principles of the Co-city Protocol allows the experimentation and implementation of social, environmental, and technological innovation projects. Such theories demonstrate that the commons could provide a framework for building a holistic and sustainable alternative to the current socio-economic configuration that permeates virtually all aspects of human activity, i.e., profit-maximizing market relations. The research hypothesis aims, therefore, to understand how energy communities based on the production of energy from renewable sources such as solar and wind, which apply the theories described above, are the solution to address energy poverty and injustice.

This paper focuses on two exemplary regulatory frameworks of “not for profit production” of renewable energy in Europe and West Africa (ECOWAS). The EU and ECOWAS were selected because they are two regional political and economic organizations with some common characteristics albeit completely different political and legal system. The EU, founded by the Treaty of Rome

²⁶ S. Foster & C. Iaione, *Ostrom in the City*, in B. Hudson, J. Rosenbloom & D. Cole, Routledge Hand. on the study of the comm. (2019); E. De Nictolis & C. Iaione, *The City as a Commons Reloaded: from the Urban Commons to Co-Cities Empirical Evidence on the Bologna Regulation*, Cambridge Hand. of Comm. Res. Innov. (2021).

in 1957²⁷, is a supranational economic and political union²⁸ (until 1993, called the European Economic Community) among its twenty-seven member states²⁹. ECOWAS, established by the 1975 Treaty of Lagos, is a regional political and economic union of fifteen countries in West Africa, one of the main regional blocs of the Continental African Economic Community (ERM).³⁰ Three case studies concerning community energy initiatives were selected to understand and compare these two areas contextually. One case from Northern Europe, Middelgrunden Offshore Windmill Cooperative, in Denmark; one from Southern Europe, *Cooperativa di Comunità di Melpignano*, in Italy; and one from the African ECOWAS area, Bboxx Energy, in Togo. A qualitative analysis was conducted based on semi-structured interviews with qualified interlocutors representing each case. The cases were identified by analyzing certain sources (e.g. reports, papers) and following selection criteria based on the legal form used, the polycentrism in

²⁷ M. Dedman, *The origins and development of the European Union 1945-1995: a history of European integration*, Routledge (2006).

Its main institutions are the European Parliament, the Council of the European Union and the European Commission, which have regulatory decision-making powers and act in a coordinated manner. As a rule, it is up to the Commission to propose new rules, while it is up to Parliament and the Council to adopt them. It is also the Commission's responsibility to ensure that the rules are properly applied by the Member States. The other institutions are the European Council, the Court of Justice of the European Union, the European Central Bank and the Court of Auditors. See the types of institutions and bodies in the European Union website.

https://european-union.europa.eu/institutions-law-budget/institutions-and-bodies/types-institutions-and-bodies_en.

²⁹ Pursuant to Article 3 of the Treaty on European Union states that "the EU shall pursue the objective of promoting peace, stability and security on the European continent; create a single market in which goods, services, people and capital can move freely and without barriers across national borders, in order to stimulate economic growth and improve competitiveness; promoting common values, including respect for human rights, democracy and the rule of law; promoting innovation and scientific research to improve Europe's global competitiveness; play an active role in international cooperation, addressing global challenges such as climate change, poverty, epidemics and promoting peace and stability in the world; promote sustainable development, balancing economic growth with environmental protection and social welfare". This includes adopting policies that address environmental challenges, promote energy efficiency, and sustainable use of resources.

³⁰ Y. Aguibou, *West African economic integration: Is ECOWAS the answer?*, *Africa Today*, 24.3, 43-59 (1977).

management, the role played by the public body in the promotion of the project, the involvement of the local community, the production of energy from renewable sources (solar or wind). The results were then discussed, comparing the cases to verify their virtuous and negative aspects and suggesting a vision for a fairer and more supportive energy transition in the light of the theories mentioned above.

4. Energy Transition and Energy Communities in the EU Legal Framework

Energy poverty is a challenge in the European Union and amongst the policy goals that the EU legal framework on energy communities aims at addressing. Energy poverty follows territorial variations within the EU, with Eastern and Southern European countries being particularly vulnerable due to high levels of general income poverty, inefficient housing, and inadequate infrastructure development. Significant poverty levels are also found in urban centers and neighborhoods in some Central European cities³¹.

The EU has developed several energy policies in response to these challenges as part of its comprehensive energy legislation and strategy. Before the Treaty of Lisbon, the intervention of the European Community on the issue of energy did not have an express basis in the Treaties but rather in the so-called implied powers under Article 235 of the TEC. With the Treaty of Lisbon, signed on 13 December 2007, which amended the Treaty on European Union and the Treaty on the European Community (whose name was changed to the Treaty on the Functioning of the European Union – TFEU), the two Treaties expressly provide for a reference to sustainable development (Article 3 TEU) and environmental protection (Article 191 TFEU, *formerly* Article 174 TEC)¹⁷, while the link between sustainable development, environmental protection and the energy sector can be deduced, in art. 194 TFEU³², which places “energy saving, energy efficiency and

³¹ S. Bouzarovski, H. Thomson & M. Cornelis, *Tackling Energy Poverty in Europe: A Policy and Research Agenda*, *Energies*, 14, 858 (2021).

³²Article 194 TFEU states: “in the context of the establishment or functioning of the internal market and taking into account the need to preserve and improve the environment, the Union's energy policy shall be intended, in a spirit of solidarity between

the development of new and renewable energies” at the heart of European energy policy³³. The entry into force of the Treaty of Lisbon has thus given impetus to European legislation for a sustainable energy policy and environmental protection, as the Treaties become the legal basis of the EU³⁴.

The European Green Deal (COM (2019) 640 final) includes a plan to achieve EU climate neutrality by 2050 and a set of interim targets, including a significant reduction in greenhouse gas emissions by 2030. This plan promotes renewable energy, energy efficiency, and a cleaner and more sustainable energy system. The EU has also mandated all Member States to draw up national action plans to combat energy poverty, as well as criteria for defining energy poverty and assessing how many households do not have the necessary energy services. But the heartbeat of the EU approach that aims at combining climate neutrality goals with energy poverty goals is the “Clean Energy Package” for new energy market regulation, the energy efficiency of buildings, and the promotion of renewable energy through the adoption of Regulation (EU) 2019/943 on the regulation of the internal market for electricity; the Energy Performance of Buildings Directive (2018/844/EU) and above all the introduction, for the first time in Europe, of the rules on energy communities with Directive 2018/2001/EU (so-called RED II) for “renewable energy communities” (RECs) and with Directive 2019/944/EU (so-called IEMD) concerning “citizens energy communities” (CECs). By 2050, 264 million Europeans will enter the energy market as prosumers and generate 45% of the total renewable electricity. Climate change, the clean energy transition, and energy poverty are strictly connected. Energy poverty is inherently tied to and influenced by climate change.

From a strict emission reduction point of view, energy poverty represents a problem because the unaffordability of energy efficiency technologies in low-income housing may be an obstacle

Member States, to: (a) ensure the functioning of the energy market, (b) ensure security of energy supply in the Union, (c) promote energy savings, energy efficiency and the development of new and renewable energies, (d) promoting the interconnection of energy networks”.

³³L. Kaschny, *Energy Justice and the Principles of Article 194 (1) TFEU Governing EU Energy Policy*, *Trans. Envir. Law* (2023).

³⁴A. Aquili, *Comunità energetiche: l'evoluzione del quadro regolatorio europeo e italiano*, *Dir. Soc.*, 4, 799-842 (2022).

to achieving decarbonization goals.

But most importantly, low-income households and vulnerable individuals and communities more broadly Systemic crises affect the poorest and more vulnerable populations the hardest. Energy shocks impact most countries, but developing countries (especially if they are energy importing) face relatively higher burdens, such as having to recycle rationing in some countries and experiencing growing poverty. Even though households have gained access to energy in areas that were underserved, it may become unavailable to them because they cannot afford to pay for it³⁵.

Affordable access to renewable energy is thus an important policy goal for both climate change and social policy concerns. Renewable electricity use is growing. Hydropower, wind, then solar. However, the growth of renewable energy access has significant regional disparities³⁶.

Combating energy poverty is one of the priorities of the current European clean energy policy. With the so-called 'third energy policy package for the internal electricity and gas market'³⁷. Like in other contexts, also in Europe, the problem is getting increasingly worse due to the cumulative impact of major crises such as for example climate change or the socio-economic implications of the Covid-19 pandemic. Domestic and supranational policies to exacerbate existing inequities further.

Ambitious climate and clean energy transition laws and policies may respond to some of the causes or implications of energy vulnerability and poverty or tackle them, but they also raise equity and justice issues, especially as they tackle existing polycentric problems. Energy poverty and energy security are among those problems. A comprehensive account of energy poverty should consider the impact of climate policies from a social justice perspective. The increase in energy costs resulting from the European Union's aggressive approach to clean energy with regard to fossil fuels further affects vulnerable households who are burdened by energy prices. Of course, systemic shocks may lead to

³⁵ *Energy Context Overview* (2022).

³⁶ *Tracking SDG 7: The Energy Progress Report*, 16 (2022).

³⁷ M. Roggenkamp & L. Diestelmeier, *Energy Market Reforms in the EU: A New Focus on Energy Consumers, Energy Poverty, and Energy (in)Justice?*, *Ener. Jus. and Ener. Law*, 161 (2020).

a sharp increase in energy prices that is tackled by the State (for example, the increase in energy prices linked to the Russian invasion of Ukraine). While distinguishing themselves from the price hike that is shaped by energy policies, these market dynamics have a disproportionate impact on energy-poor households in general. These factors should be carefully considered as part of a broader policy strategy to tackle energy poverty.

5. Energy Justice and Energy Democracy

The energy democracy scholarly debate stemmed out of the energy justice literature, as a subset of the broader environmental justice field. The energy democracy debate was picked up by EU legal scholars after being initiated in the broader social science field³⁸. The first discussions of energy democracy mirrored activists' concerns about broad issues related to the model of provision, distribution, supply of energy in wealthy countries. The movements were diffused in different European countries and were not collectively organized. They advocated for the promotion and diffusion of solutions to tackle energy poverty that relied upon energy efficiency technologies, often based on renewable sources that civil society was experimenting with in towns, cities, rural areas for a few years.

Many of the claims that energy democracy and energy justice literature advance are rooted in a global justice framework. Movements advocate for people to be able to use their agency as voters and energy consumers to demand better conditions for inhabitants and industry workers in extraction site areas.

The conceptualization of energy democracy that emerges from these experiences is that of an ideal, unrealized model that constitutes a normative frame society should aim for. The earliest, social movement-based advocates emphasize the access/affordability of energy as the first dimension: "Energy democracy means that everybody is ensured access to sufficient

³⁸ A. McHarg, *Community Benefit through Community Ownership of Renewable Generation in Scotland: Power to People?*, in L. Barrera-Hernandez, B. Barton, L. Godden, A. Lucas & A. Ronne, *Sharing the Costs and Benefits of Energy and Resource Activity*, Oxford, 297 (2016).

energy”³⁹.

The connection between advocacy claims for policy measures against energy poverty and those for renewable energy is tight. In the U.S., the energy democracy debate is close to the environmental justice and energy justice movement. Recently, the political philosopher Olufemi Taiwo stressed that energy democracy is an ideal model for the energy industry based on the empowerment of the industry workers, and their unions⁴⁰. A crucial point that surfaces also in recent literature is the dissatisfaction with the technocratic-oriented decision-making structure around energy choices⁴¹. Roughly speaking, there is a perception that decisions around energy are taken away from wide public scrutiny and kept in the hands of politicians, utility corporations, and top civil servants. This would be justified by the complex technical nature of energy issues⁴². This is ill-suited to the increased public awareness about the necessity to tackle climate change aggressively, the diffusion of consumer generation technologies, and of clean energy technologies more broadly. As a result of these changes, the awareness that the clean energy transition is not to be guided purely by technical choices, but by values. This is unless we as a society do not care about the inequalities that will be further increased if the transition is guided purely by technical considerations. Energy democracy principles, as they emerge from the social science literature, seem to envision an ideal form of democracy, a normative goal toward which the current energy system should transition. An energy democracy framework serves as a guide for just transitions policies. An energy democracy system encourages democratic, local control, decision-making, and proactive participation of energy users from the consumption to the production, distribution, and ownership side. Within the existing typology of forms of democracy, the type of energy democracy that fits the most seems to be associative and

³⁹ The definition is a quote from the 2012 Lausitz Climate Camp. C. Kunze & S. Becker, *Energy democracy in Europe* (2014).

⁴⁰ T.O. Olufemi, *Towards and Energy Democracy*, New York Magazine (2022).

⁴¹ S. Welton, *Grasping for energy democracy*, Mich. L. Rev., 116, 598 (2018); K. Szulecki, *Conceptualizing energy democracy*, Environmental Politics, 27, 21 (2018).

⁴² B. K. Sovacool & M. H. Dworkin, *Global Energy Justice: Problems, Principles, and Practices*, 25-26 (2014).

material democracy⁴³. Associative democracy⁴⁴ is a form of democracy that enhances the role of organized civil society (chiefly, the volunteering sector and civic organization) and in the case of energy democracy, they would support the local control and ownership of energy resources. Material democracy emphasizes the relationship between matter and politics in a democratic society and highlights the importance of autonomous engagement of people with, in this case, energy resources⁴⁵. Other forms of democracy that resonate with energy democracy principles albeit to a lower extent are participatory and deliberative democracy.

Participation through voice and deliberation is extremely important, but scholars seem to emphasize the deeper dimensions of association and direct, autonomous engagement with energy resources as key factors of energy democracy. From a legal scholarship perspective, as English public law scholar Aileen McHarg has argued it is important to understand the feasibility in a specific legal context, as well as the desirability of an energy democracy framework rooted in community energy⁴⁶.

The social science literature on energy democracy provides a useful background, but vagueness and uncertainty pertain to some degree as to the legal reforms that are necessary to implement energy democracy claims that may even be divergent⁴⁷. Shelley Welton identifies applications of three energy democracy visions to energy law reforms, particularly in the electric energy sector in the United States: 1. Energy democracy as a consumer choice. This would require 1. rationalization of energy pricing; 2. regulatory-regime reform, to change the role that utilities play in the provisioning of electricity; 3. Consumer engagement⁴⁸. The first vision of energy democracy as a consumer choice encapsulates a view of the electric grid as a public infrastructure that every consumer has a right to use in the way that is most profitable to

⁴³ B. V. Veelen & D. V. Horst, *What is energy democracy? Connecting social science energy research and political theory*, *Ener. Res. & Soc. Sc.* (2018).

⁴⁴ The first important theorization of associative democracy is P.Q. Hirst, *Associative democracy: new forms of economic and social governance*, Amherst (1994).

⁴⁵ B. van Veelen & D. van der Horst, *What is energy democracy? Connecting social science energy research and political theory*, *cit.* at 43.

⁴⁶ A. McHarg, *Community Benefit through Community Ownership of Renewable Generation in Scotland*, *cit.* at 38, 304.

⁴⁷ S. Welton, *Grasping for energy democracy*, *cit.* at 41.

⁴⁸ S. Welton, *Grasping for energy democracy*, *cit.* at 41, 603-605.

them. By increasing transparency of energy price fluctuations and information availability through sensors, plus lifting legal and commercial barriers to self-production, an energy consumer might use and then sell the energy that her solar panels produce when it is more profitable, maximizing its energy efficiency through advanced smart home systems and gain revenues from providing energy services.

The second vision is energy democracy as decentralized/local, direct control of energy production, storage, consumption, and exchange. Others have pointed out that the justification for a democratization of the energy sector in terms of increased control for ordinary citizens in the decision-making process and higher accountability would lead to more efficient governance of energy as well as more legitimate decisions in the sense that they would satisfy a bigger part of the stakeholders⁴⁹. The realization of this vision would entail the municipalization of local utilities, a process that requires a heavy procedure including a referendum, negotiation with the existing private utility and relevant costs, community choice aggregation, but also community-owned energy generators or distributors, such as CER or microgrids⁵⁰.

6. Civic Based Renewable Energy Communities at the Local Level

EU law mandates Member States to promote Community energy as a way to address social problems connected to the energy system, especially within a climate and energy transition policy framework but also energy poverty.

This type of policy on decentralized production of renewable energy by consumers have been around since the late nineties in some contexts. The increasing pressure from advocacy movements on EU policymakers to take action to counteract the climate crises with the European Green Deal, the Covid-19 crisis and later the energy crises determined by the Russian invasion of Ukraine further exposed fragile communities to energy poverty or vulnerability. With the Clean Energy for all Europeans package, the European Union introduced for the first time a set of legal measures

⁴⁹ K. Szulecki, *Conceptualizing energy democracy*, cit. at 41.

⁵⁰ S. Welton, *Grasping for energy democracy*, cit. at 41, 613-618.

to promote community energy amongst other things to promote renewable energy and consumer empowerment in the EU internal market. This paragraph will first analyse the goals that community energy is supposed to achieve by design. Then, it will discuss the types of community energy and entities that the framework recognizes, the regulatory tools introduced, and the legal obligations of Member States. Finally, it will address the role of cities specifically as enabling actors of community energy.

Starting in 2018, the EU created an enabling framework, within their clean energy policy landscape, to encourage citizen-based, renewable energy communities. Entered into force in 2019, the Clean Energy package consists of 8 new EU Directives (EU secondary law). The entities are Renewable Energy communities (introduced by Directive 2018/2001 on the promotion of the use of energy from renewable sources) and 'Citizen Energy Communities', introduced by Directive 2019/944 on common rules for the internal market for electricity.

Within this framework, two types of institutions are recognized: the Renewable Energy Community (hereinafter: REC), introduced by the directive 2018/2001/UE, Renewable energy directive (so-called Directive RED II); the Citizen Energy Community (hereinafter: CEC), introduced by the directive 2019/944/UE on common rules for the internal electricity market.

It appears that the policy vision behind these directives prioritizes affordability, transparency, security, and efficiency in the energy market, and heavily promotes decentralized, local energy systems and the empowerment of consumers to produce, share and redistribute energy produced hyper-locally from renewable sources. One of the most important goals of the Directives is to empower EU's Member States to promote the meaningful engagement of citizens in the energy market by eliminating the legal and commercial barriers that hamper self-production, self-consumption, storage, and selling of energy by entities constituted by citizens, imposing a disproportionate burden on them. They also aim at counteracting the overarching problem of energy poverty and guaranteeing the conditions for the engagement of vulnerable energy users in energy self-production and renewable energy more broadly. The Directives acknowledge that RECs improve local security of energy supply, shorten transportation distance, reduce energy transmission losses, and

promote energy efficiency at the household level. They also have a broader value in the eyes of the EU regulator since they increase the acceptance of the transition towards renewable energy in the EU.

The 2018 Directive encourages Member States not to apply charges when renewable energy communities produce and consume energy within the same building with limitations.

The EU frames community energy as: a tool for climate policy, via energy efficiency and promotion of the renewable energy sector; a tool for promoting the empowerment of small users and not-for-profit actors in the internal energy market; a tool to eradicate energy poverty. It acknowledges RECs as part of a political economy of energy at the local level, due to the ability of decentralized energy production of increasing not only energy efficiency and security, as noted above, but also creating new jobs and income sources at the local level⁵¹ and helps fight energy poverty through reduced consumption and lower supply tariffs. The 2019 Directive establishes an overarching duty of Member States to issue policies that counteract energy poverty.

The Directive appears to incorporate the challenges signalled by the literature in terms of the measurement of energy poverty (a multidimensional form of poverty⁵². It admonishes states to consider them all (low income; high energy expenditure; poor energy efficiency of homes) and promotes an integrated approach that includes social policy and buildings' energy efficiency improvement programs⁵³. The 2019 Directive specifies that the Commission shall establish guidance on the definition of significant number of households in energy poverty in this context and the context of Article 5(5), starting from the premise that any proportion of households in energy poverty can be considered to be significant.⁵⁴

The dimension of participatory approaches in policies regarding renewable energy production is highlighted in both directives and the equity in access to REC or CEC is a concern addressed by the regulatory framework. The planning of the

⁵¹ Directive (EU) 2018/2001 on the Promotion of the Use of Energy from Renewable Sources 2018), preamble 65.

⁵² S. Welton, *Public Energy*, N.Y.U. Law Review (2017).

⁵³ Directive (EU) 2019/944 on Common Rules for the Internal Market for Electricity and Amending Directive 2012/27/EU 2019), preamble 60.

⁵⁴ Directive (EU) 2019/944 art. 29.

infrastructure needed to produce electricity from renewable sources should consider policies relating to the participation of those affected by the projects, in particular local populations⁵⁵. Equitable access to renewable resources and to renewable energy self-production is underlined in the Directive when it acknowledges that RECs can be a useful way of counteracting energy poverty. In fact, it mentions that Member States should catch the opportunity by, for example, facilitating the participation 'by households that might otherwise not be able to participate, including vulnerable consumers and tenants'⁵⁶.

7. Lifting Barriers for Community Energy

The regulatory intervention of the Directives aims to lift the legal and economic barriers that may hamper the equal participation of RECs/CECs in the energy market. The 2018 Directive states that, at the general level, Member States should not impose charges on RECs since their features in terms of size and membership type, but chiefly the fact that they have a not-for-profit nature even when they generate revenues will hamper the competition with major energy providers⁵⁷. Member States can apply fair charges when necessary and ensure that renewable self-consumers contribute in a balanced and adequate way to the overall cost-sharing system of producing, distributing and consuming electricity when electricity is fed into the grid⁵⁸ and when the communities make efficient use of their support schemes and apply non-discriminatory and effective access to their support schemes. The Directive weighs in concerns of overall financial stability of the electricity system and of incentive systems for renewable energies that should be limited to small installations with an electrical capacity of 30 kW or less. They should also be able to apply partial exemptions from charges, levies, or a combination thereof and support up to the level needed to ensure the economic viability of such projects⁵⁹. However, RECs members should not be exempt from costs that are associated with the use of the public

⁵⁵ Directive (EU) 2018/2001.

⁵⁶ Directive (EU) 2018/200, preamble 67.

⁵⁷ Directive (EU) 2018/2001, preamble 69.

⁵⁸ Directive (EU) 2018/2001, preamble 68.

⁵⁹ Directive (EU) 2018/2001.

infrastructure or that other customers that are not in a REC sustain⁶⁰.

The 2019 Directive regulates (art. 39 - 47) the economic and commercial features that allow CECs to operate. It empowers Member States to facilitate their activities by lifting all regulatory restrictions of an economic nature for energy communities. It establishes that the fees for internally consumed energy are reduced or eliminated, lifts the obligation to feed electricity generated into the grid, differentiates requirements for energy suppliers, self-producers, and consumers, etc. (art. 39).

The sharing should be facilitated in accordance with the obligations and correct timeframes for balancing, metering and settlement. The provisions of this Directive on citizen energy communities do not interfere with the competence of Member States to design and implement policies relating to the energy sector in relation to network charges and tariffs, or to design and implement energy policy financing systems and cost sharing provided that those policies are non-discriminatory and lawful⁶¹.

CECs can become distribution system operators either under the general regime or as closed distribution system operators. Once a citizen energy community is granted the status of a distribution system operator, it should be treated as and be subject to the same obligations as a distribution system operator⁶².

Member States must also ensure that energy communities are granted the same status that larger energy operators do by allowing them to participate in available support schemes on an equal footing with them as well as providing technical and financial support, reducing administrative requirements, including community-focused bidding criteria, creating tailored bidding windows for renewable energy communities, or allowing renewable energy communities to be remunerated through direct support where they comply with requirements of small installations⁶³.

It also roots the policy strategy in a locally-conscious approach: the planning of the infrastructure needed for the production of electricity from renewable sources should take into

⁶⁰ Directive (EU) 2018/2001, preamble 71.

⁶¹ Directive (EU) 2019/944.

⁶² Directive (EU) 2019/944.

⁶³ Directive (EU) 2018/2001, preamble 26.

account policies relating to the participation of those affected by the projects, in particular local populations⁶⁴.

8. Energy Transition and Energy Communities in the ECOWAS Legal Framework

About the energy sector in ECOWAS, it is imperative to note that the principal energy policy currently in effect which also serves as the legal framework for renewable energy in the Economic Community of West African States (ECOWAS) and also primarily established at the regional and national levels is the ECOWAS Regional Renewable Energy Policy (EREP)⁶⁵.

This aims to ensure increased use of renewable energy sources such as solar, wind, small-scale hydro, and bioenergy for grid electricity supply and rural energy services. The policy sets clear targets to increase the share of renewable energy in the region's overall electricity mix to 10% in 2020 and 19% in 2030, focusing on commercially viable and mature technologies. The EREP also emphasizes the need for a coherent, efficient, and flexible legal, institutional, and regulatory framework to develop consistency between regional and national renewable energy policies. The vision of the EREP prioritizes three key objectives: universal access to electricity by 2030 to bridge the energy access gap that the region faces and ensure electricity availability for all citizens. It further focuses on sustainable and safe domestic energy services with the importance of providing clean, reliable, and affordable energy solutions for essential domestic activities like cooking. This was aligned with the White Paper's objective of achieving universal access to modern energy services by 2020. With regard to the Implementation Framework, the EREP focuses on three key areas for achieving its objectives, i.e. Grid-connected renewable energy applications, Off-grid and stand-alone applications, and Domestic renewable energy applications.

Even though the goal of the regional framework is ambitious, and the region has made modest strides to meet them, it recognizes the critical energy challenges faced by ECOWAS countries which include energy poverty, energy security, and

⁶⁴ Directive (EU) 2018/2001, preamble 27.

⁶⁵ ECOWAS *Renewable Energy Policy* (2015).

climate change mitigation. However, by creating synergies with other regional and global initiatives, the EREP operates within a broader context such as the ECOWAS White Paper on Energy Access⁶⁶. In combination with the EREP, the ECOWAS Energy Efficiency Policy (EEEP) has also been strategically designed with the explicit objective of significantly enhancing energy efficiency levels throughout the regions that comprise the Economic Community of West African States (ECOWAS) so that they align with the internationally recognized standards by the target year of 2030.

The ECOWAS region's commitment to improving energy access is evident in its efforts to promote renewable energy and energy efficiency, as well as its focus on addressing the challenges of unreliable power supply and increasing energy demand through the introduction of the ECOWAS Renewable Energy Policy (EREP)⁶⁷.

The fundamental purpose of the West African Power Pool (WAPP) is to facilitate and enhance the integration of various regional power systems while concurrently establishing a coherent and functional Regional Electricity Market⁶⁸.

This organization is composed of a diverse array of both public and private entities that are actively engaged in the critical sectors of electricity generation, transmission, and distribution across the West African region, and as of now, WAPP boasts a total membership of 26 distinct companies. The establishment of WAPP was formally sanctioned through Decision A/DEC.5/12/99 during the 22nd Summit convened by the Authority of Heads of State and Government of ECOWAS, and the organization is steadfastly committed to advancing the overall power supply framework within the West African sub-region to meet the increasing demands of its populations. Also, the Energy Efficiency Policy delineates a comprehensive overarching objective that seeks to align regional policy frameworks with the established international energy

⁶⁶ This initiative shares a common goal of expanding energy access in rural and peri-urban areas.

⁶⁷ M.K. Aglina, A. Agbejule & G.Y. Nyamuame, *Policy framework on energy access and key development indicators: ECOWAS interventions and the case of Ghana*, *Energy Policy*, 97, 332-342 (2016).

⁶⁸ see at West African Power Pool website.
<https://www.ecowapp.org/en/content/creation-wapp>.

efficiency standards by the year 2020 across the various ECOWAS Regions. This ambitious objective is further broken down into specific targets that include implementing strategic measures aimed at releasing an impressive 2,000 megawatts (MW) of power generation capacity by 2020. These targets encompass a multitude of objectives, which include, but are not limited to, the systematic phasing out of inefficient incandescent lamps by the year 2020; the significant reduction of average losses in electricity distribution from the current range of 15-40% to a target level of below 10%, which is recognized as the global standard, by the year 2020; the attainment of universal access to safe, clean, affordable, efficient, and sustainable cooking solutions for the entirety of the ECOWAS population by the year 2030; the development and adoption of region-wide standards and labels for major energy equipment prior to the conclusion of the year 2020; the formulation and adoption of a comprehensive energy efficiency framework along with measures pertinent to buildings, which will include the establishment of mandatory building codes; and the establishment of financial instruments dedicated to facilitating sustainable energy initiatives, which will encompass short-term carbon financing as well as the creation of a regional fund aimed at the development and implementation of sustainable energy projects over the longer term. However, it is crucial to observe that within the scope of these two principal energy policies that govern the region, there exists a notable absence of any policies that specifically address the establishment and promotion of renewable energy communities. It is necessary to add that even with the absence of such binding regional regulations to support this purpose, through simple yet innovative and sustainable ways and efforts, including RECs through solar homes, big hydro projects, in the overall mix to 35% by 2020 and 48% by 2030 to increase the share of renewables within the region⁶⁹. Furthermore, it is important to highlight that the aforementioned policies do not carry any legally binding implications for the member states of ECOWAS.

Nevertheless, certain member states, including Togo and others, are actively pursuing the implementation of renewable

⁶⁹ E. Okpanachi, T. Ambe-Uva & A. Fassih, *Energy regime reconfiguration and just transitions in the Global South: Lessons for West Africa from Morocco's comparative experience*, *Futures*, 139, 7 (2022).

energy communities at both the national and community levels, with much of this initiative being sponsored or supported by a variety of stakeholders, including non-governmental organizations (NGOs), individual contributors, and international or perhaps national corporations through their Corporate Social Responsibility (CSR) programs. In exemplification, Ghana, for instance, has enacted the Renewable Energy Act, 2011 (Act 832)⁷⁰ to establish a framework for managing and utilizing renewable energy sources efficiently and sustainably. Similarly, Côte d'Ivoire has implemented Decree No. 2016-862, offering tax and customs benefits for renewable energy equipment and related projects aimed at improving energy efficiency. As a matter of fact, other member states such as Mali, Nigeria, Togo, and others have seen the opportunities that renewable energy communities through solar offers. Mali and Nigeria have established frameworks to promote renewable energy development through national policies and specific regulations.

In Mali, the National Energy Policy of 2006 serves as the cornerstone, supplemented by ordinance No.2020-012/P-RM of March 23, 2020⁷¹. This ordinance offers crucial incentives by exempting renewable energy equipment from VAT, import duties, and taxes. This demonstrates Mali's commitment to making renewable energy accessible and affordable. Nigeria, on the other hand, relies on the recently enacted Electricity Act 2023 as its primary legislation governing electricity production, transmission, and distribution. This act is complemented by the National Renewable Energy and Energy Efficiency Policy of 2015, which provides a dedicated regulatory framework for renewable energy development. Further highlighting the importance of renewables, the 2023 Electricity Act mandates the Nigerian Electricity Regulatory Commission (NERC) and the Independent System Operator (ISO) to actively promote and encourage the generation of electricity from renewable sources⁷².

⁷⁰ D. Obeng-Darko, *Regulation of the Renewable Energy Sector and the Proposed Renewable Energy Authority in Ghana: An Examination*, *Renew. Ener. Law and Policy Rev.*, 8, 7-22 (2017).

⁷¹ *National Energy Policy*, Bamako (2006).

⁷² The Nigerian Electricity Act 2023; P.A. Ogbodo-Nathaniel, O.J. Olujobi, C.C. Izu & N.I. Ogbodo, *The Nexus between Clean Energy and Human Rights: Evaluating*

This explicit requirement ensures that renewable energy is not just an option but an actively pursued goal within the Nigerian electricity sector. Thus, in stark contrast to the European Union, it is evident that ECOWAS has yet to enact any regional legislation that specifically addresses the concept and establishment of energy communities within its member states.

In Togo, the government has demonstrated a strong commitment to achieving universal electricity access by 2030 fostering renewable energy development and partnering with supportive sponsors. This commitment is evident through several key policy initiatives and legal instruments.

To begin with, the establishment of the Rural Electrification Agency (AT2ER) with Decree No. 2016-064, 2016, established the AT2ER⁷³, a crucial agency dedicated to promoting rural electrification and renewable energy development. This agency plays a central role in planning and implementing renewable energy projects, particularly in the most vulnerable areas. Secondly is the Tax Exemption for Renewable Energy Equipment which purposely incentivizes investment in renewable energy technologies, i.e. Togo exempts imported equipment from relevant taxes. It helps reduce the upfront costs associated with renewable energy projects, making them more financially viable such that consumers are not also burdened with high taxes. Furthermore, Law No. 2018-010 stands as the cornerstone legislation governing renewable energy in the region⁷⁴. It meticulously establishes the legal framework for all aspects, from the equipment and infrastructure needed for generation, storage, and distribution to the rules governing the market for trading and consuming electricity produced from renewable sources⁷⁵. In this law's Title II, Articles 16 & 17 specifically highlight this in the three (3) legal regimes for electricity production projects based on renewable

the Legal Framework for Advancing Sustainable Development Goals in Nigeria, Jour. of Sust. Develop. Law and Policy, 15.3, 474-478 (2024); J.J. Olusola & W. Idiaru, *Legal Frameworks for Renewable Energy in Nigeria* (2021).

⁷³Rapport Final - Projet d'Electrification Rurale CIZO, Cadre de Politique de Reinstallation (CPR), Agence Togolaise d'Electrification Rurale et des Energies Renouvelable - AT2ER (2019).

⁷⁴ Republique Toglaise - Loi n. 10/2018, Energie Relative a la promotion de la production de l'electricite a base des sources d'energies renouvelables au togo.

⁷⁵ Togolese Republic - Plan National de Developpement 2018-2022, 36-37.

energy sources. They are the Renewable Energy Act and Performance Thresholds under Decree No. 2019-019, 2019 and this sets performance thresholds for various legal regulations governing electricity generation projects powered by renewable sources.

To enable project developers to meet specific standards for efficiency, sustainability, and contribution to national energy goals, these thresholds are set. The Concession Agreements for Renewable Energy Generation found in Decree No. 2019-018, 2019 also lays out the conditions for concluding and terminating concession agreements for the generation and marketing of electricity from renewable sources.

It provides clarity and stability for private sector investment in renewable energy projects. Finally, under Decree No. 2019-021, 2019 which provides a Licensing framework for Renewable Energy projects, establishes the conditions for granting and withdrawing licenses for the generation, distribution, and marketing of electricity from renewable sources to ensure the responsible development and operation of renewable energy projects while protecting consumer interests. These are all found in the Renewable Energy Act⁷⁶. By implementing these policy initiatives and legal instruments, Togo has created a supportive environment for the development of renewable energy and rural electrification.

However, unlike the Italian and Danish nations which have specific laws and policies that govern renewable energy communities, Togo does not and relies on the general renewable energy policies that ECOWAS has laid down which is also unbinding.

9. Case Studies and National Legislation: Community Energy Initiatives in the EU and ECOWAS

After having deepened in the previous paragraphs the policies implemented in the energy sector and to support community-led energy initiatives, the case studies in the two different contexts of the European Union and ECOWAS are analyzed. The case of Middelgrunden Offshore Windmill Cooperative, in Denmark, representing Northern Europe, the Community Cooperative of Melpignano, Italy, for Southern

⁷⁶ Strategie du électrification du Togo (2018).

Europe, and Bboxx Energy, in Togo, for ECOWAS. For the in-depth analysis of each case, we started from the information collected from the study of the different cases, enriched by the collection of new data, opinions, and motivations through the conduct of interviews and by the study materials provided by the interlocutors to integrate the interviews. Specifically, the Chairman of the Board of Directors of the Middelgrunden Offshore Windmill Cooperative and the President of the Community Cooperative of Melpignano and Chief Commercial Officer of Bboxx Energy were interviewed.

To give greater context to the cases, the regulatory evolution in the field of energy and energy communities adopted in each state where the projects covered by the case studies were also briefly explored.

9.1 Northern Europe - Middelgrunden Offshore Windmill Cooperative and Danish legislation

Middelgrunden is a wind farm located off the coast of Copenhagen, Denmark. It is one of the largest community offshore wind farms in the world. The wind farm was developed through a partnership between the local government and the Middelgrunden Offshore Windmill Cooperative. The development of Middelgrunden began in the late 1990s⁷⁷. In 1996, a group of citizens took the initiative to participate in the process of energy production in Copenhagen through the development of a wind farm to produce renewable energy. The idea was born to demonstrate the possibility of producing renewable energy in a different way than that produced by the Swedish nuclear production site located in Sweden, neighboring the city of Copenhagen. Nuclear production was in fact banned in Denmark.

The citizens' group presented the initiative to the Copenhagen Office for Environment and Energy (CEEEO), specifically to the city councilor, who welcomed the idea of the project and promoted the initiative. A feasibility study was funded by the Danish Energy Authority to study the technical, environmental, and economic aspects of the Middelgrunden offshore wind project, recognizing its innovative approach. With the support of the CEO, the group of local people formed the

⁷⁷ A. Vikkelso, *The Middelgrunden Offshore Wind Farm*, Copenhagen Environment and Energy Office (2003).

Middelgrunden Offshore Windmill Cooperative and then established a cooperation (through the signing of a contract in 1998) with Copenhagen Energy, the utility company in the energy sector, which the municipality owned⁷⁸.

The cooperation for the realization of the project was based on the fact that the Middelgrunden Offshore Windmill Cooperative had to find the funds for the development of the project and the utility company would put in place the technical know-how, once the wind farm was built, the management of the park would be shared between the cooperative and the utility company. Around 25 million euros were needed for the construction of the wind turbines owned by the cooperative, and the Middelgrunden Offshore Windmill Cooperative was able to find it by raising awareness among the population of Copenhagen. The money obtained came from private citizens, starting with very prominent citizens, whom they asked to invest and do marketing (e.g. through public meetings) to find more money. In the end, the total amount could be found before work began on the wind turbines. The commitment at the local level, together with the cooperation between the cooperative, the local public services, and the municipality of Copenhagen, was a significant precondition for the development of the project. This cooperation has given credibility to the project in the eyes of politicians and the public. Construction of the Middelgrunden wind farm began in 2000 and was completed by the end of the same year.

The Middelgrunden wind farm consists of 20 turbines, each with a capacity of 2 MW, for a total of 40 MW of installed capacity developed by the Middelgrunden Offshore Windmill Cooperative and Copenhagen Energy Wind. It covers an area of about 3.8 square kilometers (1.5 square miles) in the Øresund Strait. The wind farm is located on a natural coral reef 3.5 km east of the Port of Copenhagen. The Middelgrunden Offshore Windmill Cooperative and Copenhagen Energy Wind jointly managed all phases of the design and construction of the wind farm. After the completion of the project, they switched to operating their respective halves of the wind farm independently – Copenhagen Energy for the northern turbines and the cooperative for the southern ones – while

⁷⁸ B. Baş & I. Demirtaş, *A View of Energy Cooperatives from the Framework of Energy Justice*, *Jour. of Rec. Econ. & Sustain. Policy*, 1, 18-26 (2022).

maintaining cooperation in operational matters. The partnership benefited from the technical advice of the SEAS Wind Energy Centre in Copenhagen Energy, improving the execution of the project⁷⁹.

The Middelgrunden Wind Cooperative has been in operation since 2001, selling 42,500 shares (one share corresponds to 1/40,500 of the partnership), each for €570 representing 1,000 kWh of annual production, for a total of €23 million in collective investment schemes. Most shareholders own 5 or fewer shares in the cooperative. Each share has had an average return of 3 to 4% interest per year over the past 23 years. 90% of the members are citizens, companies, organizations, schools, universities, pension funds, and trade unions are also members of the cooperative. Examples include the local branches of the Danish Teachers' Union and the General Workers' Union, which bought shares to cover electricity consumption in their buildings. All these members make up the assembly of the cooperative (one vote each independently of owned shares); among the citizens who actively participate in the cooperative (e.g. through participation in the members' assembly), there are people with high and low incomes. In fact, the peculiarity of the Middelgrunden Offshore Windmill Cooperative was that it signed an agreement with a Danish bank to give loans at subsidized rates to needy people (low-income people) who can borrow money at low rates to invest in the wind farm and become members of the cooperative, to obtain 3/4% annual return and contribute to the production and consumption of renewable energy. This diverse ownership base underscores the cooperative's commitment to community engagement and reflects the broader social impact of sustainable energy initiatives in Denmark. The wind farm has become a kind of monument, which is now part of the city's architecture. The turbines are divided into groups that curve in an elliptical shape in the middle of the water, forming circles and are called the "environmental fortresses" of Copenhagen.

Citizens are very proud to be shareholders as it is more important to participate in contributing to the energy transition in Denmark than to think about the economic return. The wind farm

⁷⁹ *Open door scheme closed*, Ministry of Climate, Energy and Utilities website (2023). <https://kefm.dk/aktuelt/nyheder/2023/dec/aaben-doer-ordning-lukkes#:~:text=Åben%20dør%2Dscheme%20gav%20private,was%20final%20installed%20i%202010>

provides clean, renewable electricity to thousands of households in the Copenhagen area, contributing significantly to Denmark's renewable energy goals and reducing greenhouse gas emissions.

In addition to generating clean energy, the cooperative model ensures that local communities directly benefit from the project. Cooperative members typically receive dividends from electricity sales, and surplus funds can be reinvested in community projects or used to support additional renewable energy initiatives. For example, the Middelgrunden Wind Cooperative tries to raise awareness of wind energy; in fact, every year, it organizes an open day to visit the wind farm. It also supports the construction of wind turbines in disadvantaged suburbs and in fact, has a subsidiary company made up of 2700 citizens as partners that deals with the construction of wind turbines for the production of renewable energy in the suburbs of the city. The wind farm produces up to 85,000 MWh of energy per year, which makes up about 3% of Copenhagen's total energy consumption. In one year, the Middelgrunden wind farm reduces the production of sulfur dioxide by 150 tonnes, 140 tonnes of nitrogen oxide, 81,000 tonnes of carbon dioxide, and 5,200 tonnes of dust and clinker⁸⁰.

The cooperative's board of directors applies for repowering of the wind farm for further 25 years – from 2026 to 2051. The Danish Energy Agency has accepted a repowering and in the Spring 2024 the conditions for repowering the wind farm will be settled in a negotiation with the agency. Due to the prolongation of the offshore electricity production permission the new goal of the Middelgrunden Offshore Windmill Cooperative is to sell energy directly to citizens, it is believed that thanks to the transposition of the RED II Directive on energy communities in Denmark, it will be possible to implement this goal. In Denmark, the legal framework for energy communities consists of the Renewable Energy Promotion Act⁸¹, LBK nr 125 af 07/02/2020; the Electricity Supply

⁸⁰ *Information for Citizens about the OpenDoor Scheme*, in Ministry of Climate, Energy and Utilities website. <https://ens.dk/ansvarsomraader/vindmoeller-paa-hav/aaben-doer-ordningen-vedvarende-energi-anlaeg-paa-havet-1>;

P. Nielsen, J. Lemming, P.E. Morthorst, N. E. Clausen, H. Lawetz, H.H. Lindboe, E. James-Smith, N.C. Bang, S. Strøm & J. Larsen, *The Economics of Wind Turbines* (2009).

⁸¹ Act on the Promotion of Renewable Energy (RE Act), LBK no. 125 of

Act, LBK nr 984 af 12/05/2021⁸²; the Executive Ordinance on Renewable Energy Communities and City Energy Communities and the Relationship between Renewable Energy Communities and City Energy Communities and Commercial Energy Companies electricity supply company, BEK no. 1069 of 30/05/2021⁸³.

In transposing the Directive, the Ordinance provides that RECs (in Danish *VE-fællesskaber*) have the status of legal persons and can be based on various organizational structures such as associations, partnerships, cooperatives, or corporations and have the same characteristics as provided for in the RED II Directive⁸⁴. A REC may not own, establish, purchase, or lease distribution networks to arrange for the sharing of electricity produced in electricity generation facilities owned by the renewable energy community or in electricity generation facilities owned by its participants.

The sharing of electricity in the community is, therefore, based on a virtual system and takes place through an agreement on the supply of electricity with a trading electricity company to the participants or owners of the REC capital. The commercial electricity company shall manage the distribution and clearing

07/02/2020.

<https://www.retsinformation.dk/eli/lta/2020/125#:~:text=Lovens%20form%C3%A5l%20er%20at%20fremme,CO2%20og%20andre%20drivhusgasser.>

⁸² The Electricity Supply Act, LBK no. 984 of 12/05/2021. <https://www.retsinformation.dk/eli/lta/2021/984>.

⁸³ Executive Order on renewable energy communities and citizen energy communities and the relationship between renewable energy communities and citizen energy communities and electricity trading companies and collective electricity supply companies, BEK no. 1069 of 30/05/2021. <https://www.retsinformation.dk/eli/lta/2021/1069>.

⁸⁴ Participation in these communities is voluntary and open, but may be limited by contractual agreements or community statutes. This ensures that individuals, SMEs and local authorities, including municipalities, can freely join these communities. Members shall retain their rights and obligations as consumers of electricity, including as household consumers and active customers. RECs may engage in various activities, including production, supply, consumption, aggregation, energy storage, energy efficiency services, or other energy services to their members. They have access to all electricity markets in a non-discriminatory manner, either directly or through third parties, and must comply with the relevant regulations if they participate directly in the electricity market. (*Energistyrelsen*, 2021).

among the participants or capital owners of the REC according to the request of the energy community.

The Executive Order on Subsidies to Local Energy Communities and Local Anchoring of the Climate Transition, BEK No. 1162 of 09/08/2022⁸⁵, issued by the Danish Ministry of Climate, Energy and Public Utilities (*Klima-, Energi- og Forsyningsministeriet*), supports the development and proliferation of local energy communities in Denmark through the provision of subsidies for projects aimed at fostering renewable energy solutions within communities Local. Funding is directed explicitly at two main types of projects: information projects and larger projects. Information projects aim to disseminate information that can help develop renewable energy solutions in local communities, whereas larger projects focus on planning, creating, and organizing exemplary projects that demonstrate solutions involving energy production, supply, consumption, sharing, aggregation, energy storage, flexibility, and energy efficiency services (such as energy community projects)⁸⁶.

Organizations that can provide renewable energy solutions in local communities can benefit from funding ranging from DKK 10,000 to DKK 200,000 for information projects and DKK 20,000 to DKK 15 million for larger projects⁸⁷. As stated by the President of the Middelgrunden Offshore Windmill Cooperative, in Denmark there is therefore legislation aimed at regulating the phenomenon of RECs that establishes rights and obligations, while remaining a very open legislation based on the needs of the local community to leave ample room for dialogue with the municipality. The problem is the monopoly of electricity companies, although they are currently beginning to understand the importance of supporting the development of energy communities, rather than suppressing them.

⁸⁵ Executive Order on subsidies to local energy communities and local anchoring of climate transition, BEK no. 1162 of 09/08/2022.

<https://www.retsinformation.dk/eli/lta/2023/642>

⁸⁶ Ministry of Climate, *Energy and Utilities* (2022).

⁸⁷ Ministry of Climate, *Energy and Utilities* (2022).

9.2 Southern Europe - Melpignano Community Cooperative and Italian Legislation

Melpignano is an Italian town of 2,135 inhabitants in the province of Lecce in the Puglia, region of Italy. Melpignano was one of the founding municipalities of the National Association of Virtuous Municipalities⁸⁸ together with Colorno (PR), Monsano (AN), and Vezzano Ligure (LS). One of the main aims of the Association was to reduce energy consumption by encouraging the use of bio-architecture, soft technologies, and energy saving and to reduce waste in the consumption of drinking water.

So that the Municipal Administration of Melpignano, the cooperative society *Officina Creativa*, and the Department of Innovation Engineering of the University of Salento have collaborated to implement the "Melpignano Project, widespread photovoltaic system on the Roofs", which is an initiative for the construction of a widespread system on the roofs of the houses insisting on the territory of the Municipality of Melpignano.

In particular, with the signing of a memorandum of understanding, the three partners promoted a feasibility study of the project to verify whether it was possible to build on the roofs of houses, a widespread plant for the generation of electricity from solar energy, which could represent a significant share of the community's domestic electricity consumption. In order to make this project possible, systematic work was carried out to inform citizens (through the organization of public meetings, information desks, etc.) and to analyze the needs of the various family units residing in the municipality⁸⁹. The results that emerged from the

⁸⁸ Virtuous municipalities are municipalities that love their territory, care about the health, future and happiness of their citizens; And for these reasons, they adopt all those measures capable of protecting the common goods, the treasure of humanity. I. Stomeo, *Muovere l'economia non sarà un'impresa*, Edizioni Kurumuny, 12 (2012).

⁸⁹ In particular, the role played by the three partners was fundamental. The municipal administration of Melpignano had the role of main animator and coordinator of the project, provided the technical-operational support for the implementation of the project, participated in all the communication initiatives to the public. The *Officina Creativa*, as a non-profit cooperative society, specialized in the creation of new professions and in the promotion of virtuous models of behavior, aimed at protecting the environment and the development of alternative technologies with low environmental impact, represented the

feasibility study showed that the total energy needs of the residents of Melpignano were estimated at around 1,563,562 Kwh/year, while the families who had given their availability to host the plant (of about 3 kwp) were about 170, for an annual production of about 729,000 kWh/year, i.e. equal to 47% of the energy needs of Melpignano families. The Municipal Administration of Melpignano has thus proposed to its fellow citizens to create a cooperative community.

On July 18, 2011, through the signing of the statute, the "Community Cooperative of Melpignano" with limited liability was born with 71 founding members, becoming the first in Italy composed of citizens and the municipal administration⁹⁰, which is also a member of the Cooperative⁹¹. As a result, 29 photovoltaic panels were installed⁹² on citizens' roofs.

The Melpignano Cooperative has developed thanks to an investment of about 400 thousand euros, made possible thanks to a loan provided by Banca Etica and an initial loan of 100,000 euros by CoopFond⁹³, as a mutual fund of Legacoop. To cover the mutual contract for the design, construction, and start-up of the plants, it has been established that the members of the cooperative (i.e. the owners of the buildings on which the plants have been installed) must transfer the incentives they receive from the Energy Services Manager (GSE) for the production and self-consumption of energy

facilitator of the entire process, putting the subjects involved in communication and providing technical support in identifying the operating methods and carrying out the activities. The Department of Innovation Engineering of the University of Salento was the technical-scientific partner of the project, took care of the contents of the promotion and information campaign and planned the operational methodology, monitoring the progress of the activities and analyzing the results obtained from the territorial survey covered by this intervention. I. Stomeo, *Muovere l'economia non sarà un'impresa*, cit. at 88, 22 ss.

⁹⁰ The City Council resolved (with act no. 21 of 11/07/2011) its adhesion to the community cooperative to be established. I. Stomeo, *Muovere l'economia non sarà un'impresa*, cit. at. 88, 30 ss.

⁹¹ Cooperativa di Comunità Melpignano, Banca delle terre.

<https://www.sibater.it/2020/11/30/cooperativa-dicomunita-melpignano/>

⁹² 29 photovoltaic systems have been installed, compared to the 170 families who had agreed to install solar panels on their roofs, some are discarded because they are not suitable and to make the project compliant with the Fifth Energy Account. Ministerial Decree of 5 July 2012, published in the Official Gazette no. 159 of 10 July 2012.

⁹³ *ENEA Report PTR 053, 64-66 (2021)*.

from photovoltaic plants to the cooperative for twenty years. The members on who's building the system have been installed (each system has power from 3 to 10 kW), benefit from a discount on the bill because during the day they self-consume the energy produced by the system (there is, therefore, a physical scheme of self-consumption).

The surplus of the energy produced is fed into the public distribution network through on-site trading⁹⁴(on average, in the year 2022, each of the 29 plants has generated a reimbursement for on-site trading of between 400 and 4000 euros per plant), and the reimbursement for on-site exchange is credited by the GSE to individual members who have a photovoltaic system installed on the roof of their property.

Members are only required to pay € 25 for the registration fee to join the cooperative, which will be returned if they decide to leave it. The photovoltaic system remains the property of the Cooperative for 20 years, therefore, all the costs related to maintenance and management costs are borne by the Cooperative. The relationship between the owners of the buildings and the cooperative is governed by a separate deed that takes the form of a fixed-term exclusive-use contract. At the end of the twenty years, it was agreed that the plants would be owned by the owners of the buildings. The turnover of the Community Cooperative of Melpignano is about € 650,000⁹⁵ per year and the photovoltaic system produces 212 kWh per year, the economic surplus is invested in other projects for the benefit of the local community.

Thanks to the development of the Melpignano energy community, important economic savings have been achieved for families through the self-production and self-consumption of energy from photovoltaic systems and the sale of excess energy,

⁹⁴ On-the-spot trading is a virtual model of energy exchange. The On-Site Exchange service is a particular form of on-site self-consumption that makes it possible to offset the electricity produced and fed into the grid at a certain time with that withdrawn and consumed at a time other than that in which production takes place. In the On-Site Exchange, the electricity system is therefore used as a tool for the virtual storage of electricity produced but not contextually self-consumed. A necessary condition for the provision of the service is the presence of plants for the consumption and production of electricity underlying a single connection point with the public grid. GSE website. <https://www.gse.it/servizi-per-te/fotovoltaico/scambio-sul-posto>

⁹⁵ *ENEA Report PTR*, cit. at 93.

while the GSE incentives from photovoltaic production, net of the reimbursement of investments made, have been reinvested in infrastructures and socio-environmental services useful to the community⁹⁶. The grandiosity of the project is to leave it to the members of the cooperative, and therefore to the inhabitants of Melpignano, to decide how, where, and when to spend the profits obtained from the production of renewable energy to improve the urban context in which they live. In fact, the CER of Melpignano has developed the "Water Houses" project for the distribution of public water at negligible costs for all inhabitants. To build the first municipal "water house", an agreement was signed with the Municipality of Melpignano for the use of the site on which to build the water house, and a dispenser was purchased that provides chilled water at 0.5 cents per liter, taken from the public aqueduct, to reduce the use of plastic bottles, reduce carbon dioxide emissions and other pollutants due to road transport, and encourage the consumption of public water. Starting from this, 59 Water Houses have been built that distribute about 30,000 liters of water every day to 46 municipalities. Another project was the redevelopment of the Peace Park, a green area equipped with games for children, and the construction of a new bar-cafeteria inside the park⁹⁷.

Other projects were the creation of a community apiary, the purchase of canteen vouchers and schoolbooks for the most disadvantaged families⁹⁸, the purchase of interactive whiteboards (IWB) for the local primary school, the environmental and sustainability awareness courses carried out in primary schools and finally the activities included in the context of the "Exchange Project - Solidarity with the elderly, mothers, children together"⁹⁹. The Community of Melpignano has been awarded the "Comuni Raggianti Puglia" award for having successfully created a Community Cooperative focused on the promotion of photovoltaic energy, and for having thus contributed to the enhancement of the territory from a social, economic, and environmental point of view.

⁹⁶ L. Bartocci & F. Picciaia, *Le non profit utilities tra Stato e mercato: l'esperienza della cooperativa di comunità di Melpignano*, *Azienda pubblica*, 3, 381-402 (2013).

⁹⁷ *ENEA Report PTR*, cit. at. 95.

⁹⁸ G. Tagliani, *La rivoluzione virtuosa della comunità energetica di Melpignano: In cooperativa per risparmiare su sole e acqua*, *La Repubblica* (2022).

⁹⁹ Progetto Scambio website. www.progettoscambio.it

To date, 320 members (29 are the owners of the plants, the others are citizens or small craft and local businesses that use the cooperative's goods and services) are part of the community cooperative. The Municipality, on the other hand, formally left the cooperative, because it was subsequently understood that the participation of the P.A. could harm the initiative, determining the risk of conflicts of interest with other projects and activities.

The Community Cooperative of Melpignano now aims to become an energy community under recent Italian legislation. The EU RED II Directive was, in fact, implemented in Italy through Legislative Decree no. 199/2021, Article 31 of which incorporates the definition of renewable energy community in the RED II Directive¹⁰⁰. The operation of the RECs is then regulated by the Integrated Text of the provisions of the Regulatory Authority for Energy, Networks and the Environment for the regulation of Widespread Self-Consumption (TIAD) adopted by ARERA¹⁰¹ with ARERA Resolution 727/2022/R/EEL of 27 December 2022, which identifies as the model to be adopted to make the RECs operational the virtual regulation model that provides for the use of the existing public distribution network for the exchange of between the ERC's production facility and its members. Through this regulatory model, the ERC plant that produces energy can virtually share energy with all members (even those who are consumers because they do not have a system installed on their roof) and obtain shared

¹⁰⁰ Article 31 of Legislative Decree no. 199/2021 defines CERs as: an autonomous legal entity with an open and democratic structure, whose members are natural persons, small businesses, associations with private law personalities, local authorities, research and training bodies, third sector and environmental protection bodies, religious bodies, as well as local administrations contained in the list of public administrations disclosed by the National Institute of Statistics (hereinafter: ISTAT) in accordance with the provisions of Article 1, paragraph 3, of Law No. 196 of 31 December 2009, which are located in the territory of the same municipalities in which the energy sharing plants are located, which are available and under the control of the community. The main purpose of the CER is to provide environmental, economic or social benefits at the community level to its members or members or to the local areas in which the community operates and not to make financial profits. Art. 31, c. 1, lett. a) of Legislative Decree no. 199/2021.

¹⁰¹ ARERA is the acronym for the Regulatory Authority for Energy, Networks and the Environment. It is an Italian authority which carries out regulation and control activities in the sectors of electricity, natural gas, water services, the waste cycle and district heating.

energy at any time the incentives established by the decree of the Ministry of the Environment and Energy Security (MASE) of 7 December 2023, No. 414 and the reimbursement of network charges for not having used the network to draw electricity thanks to the production and self-consumption of the energy due from the ERC plants. Both economic contributions are provided by the GSE and to access this service, the GSE technical rules published on 23 February 2024 must be followed. In particular, art. 31, paragraph 2, letter c), of Legislative Decree no. 199/2021 provides for energy sharing on which incentives are obtained, that participants in the CER must be in the same market area and must be connected to the same primary substation and the plant powered by renewable sources must have a maximum power of 1MW.

Currently, the Community Cooperative of Melpignano takes advantage of the legislation before the CERs, which does not provide for the possibility of sharing energy among all members (i.e. even those who are simple consumers). The Melpignano cooperative uses only the energy produced by its members' plants and at the same time self-consumed by them and the surplus is fed into the grid, so there is no sharing of energy with the other members who do not have the plants but are consumers. This would be possible through the transformation into REC. Processes have therefore begun to move in this direction. Certainly, the legal model of the community cooperative is a legal structure favorable to the implementation of projects such as CERs and in line with European and national legislation on CERs.

The Community cooperative is regulated by the Regional Law of Puglia, 20 May 2014, n. 23 and is characterized by being a legal entity (as required to establish a REC by the Red II directive) open to the participation of all citizens and economic operators, based on a model of organization with democratic governance suitable for the development of the community¹⁰².

¹⁰² In fact, the explicit objective of the community cooperative must be to produce advantages in favour of a community to which the members belong. This objective must be pursued through the production of goods and services in order to have a lasting impact on fundamental aspects of the quality of social and economic life. *Guida alle Cooperative di Comunità*, Legacoop (2011). <https://www.legacoopmarche.it/ajaxfilemanager/uploaded/CoopComunita.pdf>

9.3 ECOWAS - Bboxx Energy

Bboxx is a prominent exemplar within the renewable energy sector across Africa, leading the advancement of off-grid electricity solutions and extending electrical access to over 2 million individuals. The foundation of Bboxx was predicated on the recognition of inadequate energy accessibility throughout Africa, particularly in rural areas. Following an extensive analysis, Bboxx identified Solar Home Systems as the most scalable solution that aligned with consumer expectations. Although solar home systems present a seemingly uncomplicated solution—comprising a panel, battery, and basic appliance connection—the principal obstacle encountered was the scarcity of appropriate financing alternatives that impeded widespread adoption in rural domains. In conjunction with the absence of a formal retail network for the distribution, installation, and maintenance of these products, Bboxx assumed the roles of both financiers and retailers of the technology.

This innovative concept effectively bridged the chasm between market demand and access to solar home systems by proffering affordable financing via a pay-as-you-go model. In Togo, Bboxx operates as a joint venture partially owned by EDF, designated Bboxx EDF Togo, where approximately 400,000 individuals utilize Bboxx Systems to power not only their homes but also water pumps, streetlights, shops, and educational institutions. Bboxx EDF Togo inaugurated the electrification initiative named “Tomorrow’s Connected Community,” which embodies a collaboration among the digital economy, technology, and energy sectors. The initiative is underpinned by a vision and commitment to ensure universal electricity access by the year 2030, employing environmentally sustainable methods, with a specific focus on solar energy. By incorporating solar kits, mini-grids, and augmenting the existing network, the objective is to elevate Togo's electrification rate to 75 percent by 2025 and achieve full electrification by 2050. A significant milestone for Bboxx EDF Togo occurred in 2019 with the introduction of a pioneering initiative that launched innovative energy projects and obtained the inaugural government subsidy for solar energy payments in Togo and throughout Africa, as outlined in the Tax Exemption for Renewable Equipment.

This landmark achievement, aligned with the government's "CIZO" electrification strategy, empowered Togolese citizens to

invest directly in solar solutions and facilitated the acceleration of the transition toward a cleaner, more sustainable future. In the context of “Tomorrow’s Connected Community,” electricity is delivered through a microgrid engineered by General Electric, supplemented by solar systems that power residential households and small to medium-sized enterprises (SMEs).

Since 2017, Bboxx EDF Togo has served as a steadfast partner in Togo's struggle against energy poverty, with its contributions extending beyond the mere initiation of projects. It has had a demonstrable impact on the lives of individuals by catalyzing a transformative shift towards solar energy. Situated in the remote and vulnerable regions of Southern Togo, Sikpé Afidégnon is a village encompassing 1.28 km² with a population of 4,940, which previously depended on noisy and polluting generators for its electricity needs¹⁰³.

However, through a collaborative effort between Bboxx EDF Togo and GE, the village has undergone a remarkable transformation, transitioning towards a solar-powered future.¹⁰⁴ This groundbreaking initiative, executed in 2019, provided clean and reliable electricity to approximately 300 households (specifically within *Sikpé Afidégnon*) and illuminated the village thoroughfares with solar-powered lighting. The Bboxx Energy Initiative operates quite differently from the usual RECs known across the European landscape and is serving as a means for providing clean energy for Togo and its environs.

10. Discussion of results

The research aims to understand how community-led energy initiatives are tools that can reduce problems related to energy poverty and energy justice. The three cases represent community-led energy initiatives as virtuous examples of realizing environmental, economic, and social benefits. On the one hand, they are based on the production of renewable energy through wind and photovoltaic, which reduces greenhouse gas emissions; on the other

¹⁰³ *Village Data Analytics for mini-grid site selection in Togo*, TFE Energy.

¹⁰⁴ *Solar Power Transforms Remote Togolese Village*, adf (2020). <https://adf-magazine.com/2020/03/solar-power-transforms-remote-togolese-village/>

hand, they show how it is possible through the reinvestment of economic savings to invest in social services in favor of the community, such as the production of drinking water.

Energy injustice and the protection of vulnerable communities happen thanks to the legal models on which these energy initiatives are based. Exploiting legal models that are not only aimed at profit, such as cooperatives, allows for true citizen participation and democratization of energy services, as well as the enhancement of territorial identity. In the same way, the involvement of a plurality of actors, the so-called actors of the quintuple helix of Foster and Iaione, is essential to allow effective governance of resources such as energy. In all three cases, the participation of the public sector, cognitive institutions, businesses, citizens, and the local community is noted. This shows how it is essential to manage energy as a common good and to have polycentric management and co-ownership according to Ostrom's theory, in order for the project to be successful.

In fact, giving decision-making power to the members-citizens-cooperators makes it possible to make citizens active and improve the urban quality of the territory in which they live. The reinvestment of economic savings in services for the good of the community thanks to logic not based on profit, but on the culture of creating value is a fundamental element for the development of the local community and central to the organization of an energy community. For the development of energy communities and community energy initiatives that enjoy long-term economic sustainability, it is certainly important that public entities, at the state or local level, support the community for the development of the project through funding, awareness campaigns, and simplification of administrative procedures.

This is in line with Foster and Iaione's conception of the enabling state: public authorities must be promoters and facilitators of community initiatives. It is important to promote innovative forms of capability approaches, such as energy communities, to address inequalities of power, status, and access to resources.

The structure of community energy initiatives characterized by the assumption of the theoretical frameworks of Ostrom, Iaione and Foster shown by the three cases, allows us to highlight three crucial advantages: for the user, who benefits from service at cheaper rates; for the environment, since electricity is produced

from renewable and ecological sources; for the community, since the wealth created can be used to support the development of the territory. From the difference in legislation between the European Union and ECOWAS, it is shown that the binding nature of energy policies in the EU, unlike ECOWAS, which entails the obligation to transpose them in the Member States, is important for the acceleration of realities, such as energy communities.

The two European cases, which were already virtuous, have decided to improve even more by adapting to the legislation on energy communities that makes it possible to combat energy poverty thanks to the possibility of making vulnerable consumers members of the legal entity (i.e. the REC), guaranteeing them energy sharing, without the obligation to install photovoltaic systems. Consumers have the possibility while remaining connected to their meter and their energy supplier, by the mere fact of being a member of the CER, to obtain discounts on their bills and incentives, thanks to the consumption of the energy produced by the CER. In ECOWAS, the bottom-up initiatives show how important it is certainly to have a greater push at the regulatory level both by the region and by the states that constitute it.

In summary, the production, sharing, and consumption of energy from renewable sources in EU forms can not only be an opportunity for technological innovation and the fight against the climate emergency, but also represent a key to fighting inequalities, energy poverty and offer opportunities for development thanks to non-welfare structural interventions that encourage collective action, local realities and the emergence of new professional figures.

11. Conclusion

This article set out to analyse the state of energy transition within the European Union (EU) and West Africa, with a particular focus on the legal frameworks enabling communities to engage in decentralized, not-for-profit renewable energy production. Through an exploratory examination of Renewable Energy Communities (RECs) in the EU and ECOWAS regions, the study highlights the potential of a commons-based approach as a transformative mechanism for combating energy poverty and achieving energy justice. This approach emphasizes community

ownership, democratic governance, and equitable distribution of energy resources, offering a pathway toward more inclusive and sustainable energy systems. The analysis reveals that energy communities and the decentralization of the energy system are intricately linked, presenting multiple benefits such as enhanced energy access, community empowerment, and environmental sustainability. In the EU, robust legal frameworks have been established to support renewable energy and renewable energy communities. These frameworks are legally binding and harmonized across member states, ensuring consistent implementation and fostering a supportive environment for community-driven renewable energy initiatives. Notable legislations, including the Renewable Energy Directive (RED II) and the Internal Electricity Market Directive, explicitly recognize and promote energy communities, providing clear definitions, rights, and obligations that enable citizen participation in the energy transition.

In contrast, the ECOWAS region exhibits a more fragmented legal landscape. While some policy initiatives and strategic frameworks advocate for renewable energy, they largely remain non-binding and are characterized as soft laws. There is an evident gap in specific legislation that directly supports decentralized renewable energy production or legally recognizes energy communities. Despite this, civic actors—including local communities, cooperatives, and non-governmental organizations—play a crucial role in enhancing energy access through commons-based initiatives. These grassroots movements demonstrate the potential of community-led renewable energy projects in bridging the energy access gap, particularly in rural and vulnerable areas.

The case analysis reveals both commonalities and distinctions across regions. Within the EU, the two European cases showcase similarities in their strategic deployment of RECs, driven by favourable policy environments and strong regulatory backing. These communities have successfully reduced energy poverty and promoted local sustainability while maintaining a low carbon footprint. Conversely, the Togolese case illustrates a different trajectory, characterized by limited legislative support but high community resilience, innovation and supportive stakeholders. Despite the regulatory constraints, Bboxx Energy is supporting

rural communities in Togo to achieve energy access goals, emphasizing the role of multi-actor governance experimentalism in energy transitions.

A key finding of this study is the strategic importance of a commons-based approach, which leverages collective ownership and community governance to ensure equitable energy distribution. By embedding energy production within community structures, this model effectively addresses energy poverty while safeguarding energy justice and environmental sustainability. It empowers local communities, enhances social cohesion, and fosters economic resilience by enabling communities to produce, consume, and manage their own energy resources. The study underscores the need for tailored legal frameworks that recognize and support energy communities within the ECOWAS region. To achieve this, policymakers should transition from soft laws to binding regulations that explicitly acknowledge energy communities as legitimate market actors. Furthermore, cross-regional cooperation and knowledge exchange between the EU and West Africa can facilitate the adaptation of best practices, such as the recently introduced Italian Piano Mattei while respecting regional socio-economic and cultural contexts. By leveraging the experiences and legislative advancements in the EU, ECOWAS countries can formulate context-specific policies that promote decentralized, community-led renewable energy solutions. In conclusion, the integration of commons-based energy communities within national and regional legal frameworks has the potential to accelerate the energy transition while promoting social equity and environmental sustainability. As the world moves toward clean energy goals, the strategic deployment of decentralized renewable energy systems through community empowerment presents a viable pathway to achieving universal energy access, reducing energy poverty, and ensuring energy justice. This research contributes to the growing discourse on civic power and collective governance of shared public resources like energy and energy transitions, advocating for inclusive and participatory governance models that place communities at the heart of the energy landscape.

WINNING THE WATER BATTLE WITH SUSTAINABLE
CO-GOVERNANCE:
EVIDENCE FROM WATER UTILITIES COMPANIES

Marijana Krstić, Sofia Sabatucci**, Ivan Mugabi****

Abstract

This paper examines the impact and challenges of Environmental, Social, and Governance (ESG) Standards within the water utilities sector, highlighting the pressing need for sustainable governance models amid increasing scrutiny of ESG criteria. This study emphasizes collaborative governance strategies as essential for equitable and sustainable water resource management, by recognizing the critical role of water management for sustainable development, as underscored by the United Nations' SDG 6. It delves into the complexities of defining and implementing ESG standards, critiquing their conceptual fluidity and the risks of poor implementation. Starting from Integrated Water Resources Management (IWRM), through the lens of the Urban Commons and Co-City theory, the paper proposes a participatory, multi-stakeholder governance model - "Co-Governance" – characterized by shared decision-making, community engagement and equitable resource distribution. This model challenges traditional ownership paradigms, advocating for collective stewardship and long-term sustainability. The hypothesis is tested through empirical case studies of utility companies in diverse contexts, including Glas Cymru in the UK, Acquedotto Pugliese (AQP) in Italy, and Runda Water Ltd (RWL) in Nairobi, Kenya.

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1. Introduction

Environmental, Social and Governance (ESG) Standards² seemed to represent the means to change the logic of the financial world, nevertheless they recently appear more under attack in both the EU and the USA economic, political and legal realms. Clear signs of this “attack” on ESG are evident in the rejection of the Corporate Sustainability Due Diligence Directive Proposal (CSDD) by the European Council on February 28, 2024. On the other side of the Atlantic, in New Hampshire, a proposal is being considered to make ESG criteria-based investing a criminal offense. In a context of struggle for sustainability, the domain of water utilities governance emerges as a crucial sphere due to pressing needs related to water management. These needs have been

²The environmental aspect “E” relates to how company safeguards environment, and so it deals with issues like energy and water consumption, climate change, greenhouse gas emissions etc. “S” relates to how the company manages its relationships with employees, suppliers, customers and the communities where it operates and so it includes matters like worksite health safety, human rights, employee diversity, inequality, supply chain, community development and charity contributions. Lastly, “G” relates to company’s leadership, audits, internal controls and shareholder rights and so it deals with aspects like executive compensation, political donations, board diversity, risk management, cybersecurity, corporate purpose, compliance, and stakeholder agenda; see: P. Yeoh, P. Ghidini, *Environmental, Social and Governance (ESG) Laws, Regulations and Practices in the Digital Era*, Alphen Aan Den Rijn, Wolters Kluwer, (2022).

acknowledged in 2015 by the United Nations that in the Agenda for Sustainable Development for 2030 - which as widely known consists of 17 Sustainable Development Goals (SDGs) - dedicated the SDG 6 to provide a comprehensive set of targets and corresponding indicators to address the multifaceted aspects of water and sanitation management. Specifically, Sustainable Development Goal 6 (SDG6) named “*Clean Water and Sanitation*” covers 8 targets pertaining to the social (equitable access), economic (integrated water resources management) and environmental (protect and restore water-related ecosystems) elements of sustainable development³. In response to the global commitment to advancing sustainable water management, its vital role and achieving related goals, in July 2020 the UN introduced the SDG 6 Global Acceleration Framework, which aims to expedite the fulfilment of water-related goals and targets by 2030, urging all stakeholders to mobilize efforts⁴. For the purpose of our analysis Target 6.5, which calls for integrated water resources management (IWRM) at all levels, emerges as crucial. IWRM has been defined as “a process which promotes the coordinated development and management of water, land and related resources to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”⁵. The IWRM framework, established through the Dublin Principles⁶ laid the foundation for modern water management and sustainable development practices. The Dublin Principles emphasize the need for sustainable water management through inclusive, participatory approaches that involve users, planners, policymakers, and

³ United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development*, available at <https://sdgs.un.org/2030agenda> (last accessed 15 January 2025).

⁴ UN-Water, *SDG 6 Global Acceleration Framework*, available at <https://www.unwater.org/publications/sdg-6-global-acceleration-framework> (last accessed 15 January 2025).

⁵ UNEP, *What Is Integrated Water Resources Management (IWRM)?*, available at <https://www.unep.org/explore-topics/disasters-conflicts/where-we-work/sudan/what-integrated-water-resources-management> (last accessed 15 January 2025).

⁶ Global Water Partnership (GWP), *Dublin–Rio Principles on Water and Sustainable Development*, available at <https://www.gwp.org/contentassets/05190d0c938f47d1b254d6606ec6bb04/dublin-rio-principles.pdf> (last accessed: 15 January 2025).

highlight the role of women⁷. This approach requires governments to facilitate stakeholder engagement, especially including marginalized groups, to ensure water management strategies are equitable, sustainable, and supported by robust governance structure.

It clearly emerges that, due to the challenges linked to the management of water and its paramount importance, this sector is mainly eligible for implementation of a sustainable model of governance for water utility companies. The aim of this paper is to demonstrate how, in order to implement sustainable governance models in the water sector, it is necessary to redefine the fundamental tenets of the concept of companies. On one hand, this involves proposing, on a theoretical level, a model of participatory and multi-stakeholder governance and on the other hand, validating this hypothesis through the empirical analysis of case studies related to utilities companies based in different geographical and economic contexts.

The starting point of our analysis is the acknowledgment of the inherent complexities in defining sustainability standards such as ESG. The conceptual fluidity of ESG, highlights ⁸the varied interpretations and applications that extend from Corporate Social Responsibility (CSR)⁹ to sustainability goals and strategies. After having traced the “origins” of ESG and the relevant EU regulatory framework, attention will be posed towards the influence of the “ESG Trend” to the debate on corporate purpose, in order to advance a proposal, drawing inspiration from the Urban

⁷ They advocate for an institutional framework that integrates economic, social and political systems for effective governance, ensuring decisions consider environmental sustainability and financial viability.

⁸ E.Pollman, *The Making and Meaning of ESG*, ECGI Law Working Paper Series N°659/2022, 4, “The word that follows the famous refrain of “environmental, social, governance” shapeshifts from “criteria” to “factors,” “standards,” “strategies,” “risks,” “issues,” “activity,” or even “goals.” Does ESG refer to “three criteria to evaluate a company’s sustainability performance”? Is it a “set of standards for a company’s operations that socially conscious investors use to screen potential investments”? ...”.

⁹ The CSR argues that the management of companies must also takes into consideration, in pursuing the company’s objectives, social and environmental issues and, more generally, the requests of the various stakeholders, harmonizing economic, environmental and social goals (so-called Triple Bottom-Line Approach) and combining the expectations of shareholders and, indeed, of stakeholders.

Commons¹⁰ and the Co-City theory¹¹, that advocates for a new model of governance, applicable to water utilities companies. This proposal defined as “Co-Governance”¹² is mainly characterized by shared decision-making, community engagement and the equitable distribution of resources and benefits. This standpoint challenges the conventional dichotomy of public and private ownership, advocating for a collaborative model that values collective stewardship and governance.

Finally, we try to verify how the traced theoretical hypothesis of Co-Governance and its main characteristics can represent a paradigm shift towards models that privilege long-term sustainability over immediate gains, weaving ESG considerations into every aspect of decision-making and fostering active community involvement in governance processes, with concrete references to the context of water management. Therefore, we analyse and compare, through four qualitative variables (purpose, internal governance, policy integration, ESG performance), three case studies of companies operating in the water sector: Glas Cymru in the United Kingdom, Acquedotto Pugliese (AQP) in Italy and Runda Water Ltd (RWL) in Kenya. These three entities exemplify innovative governance models that enhance sustainability outcomes, prioritize community welfare and that are already redefining the role of water utilities in society. Each model in some extent demonstrates application of some of the elements that theorized in the proposed Co-Governance model, clearly adapted to their specific contexts and challenges. It underscores the potential of innovative governance models to advance sustainability and community engagement in the water sector, even

¹⁰ E. Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (1990).

¹¹ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions toward Just and Self-Sustaining Communities* (2022); S. Foster & C. Iaione, *The City as a Commons*, 34 *Yale L. & Pol’y Rev.* 281 (2016).

The commons theory focuses on the study of the allocation of public resources, specifically common goods, from a shared management perspective.

¹² S. Deakin, *The Corporation as Commons: Rethinking Property Rights, Governance and Sustainability in the Business Enterprise*, 44 *Queen’s L.J.* 339 (2019).

An approach suggested by the author to safeguard the corporation as commons involves expanding decision-making participation, allowing collaborative decisions and sharing choices that influence the institution and its stakeholders.

incorporating a more integrated system of co-governance, known as the Nexus thinking (or WEF Nexus), into their strategies.

2. From the Birth of ESG to a purpose-led corporate management

The key moment of the shift on the path to ESG is the Davos World Economic Forum in 1999, where former UN Secretary General Kofi Annan proposed a “Global Compact” (hereby GC), directly urging business leaders to align with the UN in the promotion of principles that would represent the premises for a sustainable global economy¹³. Senior executives of financial institutions and other corporations that were part of the GC demanded further efforts, and this led to a joint initiative in January 2004 called “Who cares wins” (hereby WCW)¹⁴. It was on this occasion that the term ESG was first coined. The aim of the endorsing institutions¹⁵ was that ESG integration would have helped the implementation of GC principles in the corporate world. The choice of ESG terminology was strategic, as it avoided using confusing terms such as “sustainability” or “corporate citizenship” and it also provided a list of examples for each E, S and G. The governance element was included in the label, as according to endorsing entities: “sound corporate governance and risk management systems are crucial prerequisites to successfully implementing policies and measures to address environmental and social challenges”. Thus, the G, as a fundamental element of the environmental and social strategies, represented the means of execution to achieve relevant E and S objectives.

¹³ The ten principles established by the UN Global Compact and all the developments and further initiatives taken under and in execution of the UN Global Compact, available at <https://www.unglobalcompact.org>.

¹⁴ *The Global Compact, Who Cares Wins: Connecting Financial Markets to a Changing World* (2004).

¹⁵ The report was endorsed by ABN Amro, Aviva, AXA Group, Banco do Brazil, Bank Sarasin, BNP Paribas, Calvert Group, CNP Assurances, Credit Suisse Group, Deutsche Bank, Goldman Sachs, Henderson Global Investors, HSBC, IFC, Innovest, ISIS Asset Management, KLP Insurance, Mitsui Sumitomo Insurance Morgan Stanley RCM (a member of Allianz Dresdner Asset Management), UBS, Westpac, World Bank Group.

Otherwise, the soft law approach adopted at the birth of the ESG, and the very broad scope of their definition brought several problems to the integration and application of these metrics within corporate and investment landscapes. These can include the compartmentalization of ESG, as specialized category distinct from other critical business considerations, the lack of standardized ESG metrics and the subjective nature of ESG ratings, that contribute to inconsistency and confusion among stakeholders, the trade-offs between environmental goals and social interests, such as potential job losses from transitioning to greener technologies, highlight the difficulty in balancing ESG components. The overemphasis on quantitative ESG compliance at the expense of qualitative insights is equally problematic, since it leads to a disproportionate allocation of resources towards other critical areas for growth and sustainability.

These challenges feed into criticisms that ESG might foster confusion and greenwashing, potentially undermining corporate accountability and overshadowing alternative solutions to pressing global issues. Therefore, a paradigm shift that integrates ESG seamlessly into the broader frameworks of investing and business strategy is necessary. This approach demands a renewed assessment that values qualitative insights alongside quantifiable metrics, ensuring a comprehensive view of a company's impact and potential¹⁶.

The EU seems to have taken a similar approach to a greater extent than other jurisdictions, with a tendency to create a regulatory framework - i.e. hard law - that provides clarity and uniformity in the ESG context, making the implementation of such standards increasingly widespread and pursuing the goal of a concrete shift towards a sustainable model of capitalism - and thus of finance and business. From 2001 with the Green Paper "Promoting a European framework for Corporate Social Responsibility"¹⁷ the European Commission had indicated the

¹⁶ E. Pollman, *The Making and Meaning of ESG*, 14 Harv. Bus. L. Rev. 403 (2024); A. Edmans, *The End of ESG*, 52 Fin. Mgmt. 3 (2023).

¹⁷ Commission Green Paper on Promoting a European Framework for Corporate Social Responsibility, COM (2001) 366 final (July 18, 2001), with which corporate social responsibility had been brought definitively to the center of attention by the European institutions.

hallmarks of CSR to be found in the voluntary integration of companies' green concerns into their business operations and in their relationships with stakeholders. Later in the new Communication on corporate social responsibility of 25 October 2011, named "A renewed EU strategy 2011-14 for Corporate Social Responsibility"¹⁸ the topic was brought definitively to the center of attention by the European institutions. CSR is about creating shared value, encouraging companies to take a long-term strategic approach and explore innovative development opportunities that contribute to the well-being of society and lead to higher quality and more productive jobs¹⁹.

At the same time, communication begins to differentiate large companies and particularly high-risk companies by encouraging them (in the future it will be mandatory) to carry out risk-based due diligence. Alongside the strategy for corporate social responsibility the EU felt the need to establish a definition of what is meant by "sustainable." In this sense, the Action Plan for Financing Sustainable Growth²⁰ was firstly created, whose objective was to build a standard classification scheme for sustainable economic activities, called "EU taxonomy"²¹. EU Taxonomy was implemented with the EU Regulation 2020/852 (Taxonomy

¹⁸Commission Communication, *A Renewed EU Strategy 2011-14 for Corporate Social Responsibility*, COM (2011) 681 final (Oct. 25, 2011), with which corporate social responsibility had been brought definitively to the center of attention by the European institutions.

¹⁹ *Id.* at para. 3. In this Communication, the European Commission states that: "To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders [...]."

²⁰ Commission Communication, *Action Plan: Financing Sustainable Growth*, COM (2018) 97 final (Mar. 8, 2018).

²¹ M. Och, *Sustainable Finance and the EU Taxonomy Regulation – Hype or Hope?*, KU Leuven Jan Ronse Inst. Co. & Fin. L., Working Paper No. 2020/05 (2020); F. Schuetze & J. Stede, *EU Sustainable Finance Taxonomy – What Is Its Role on the Road towards Climate Neutrality?*, DIW Berlin Discussion Paper No. 1923 (2020); A.M. Paces, *Will the EU Taxonomy Regulation Foster a Sustainable Corporate Governance?*, ECGI L. Working Paper No. 611/2021 (2021); A. Giacomelli, *EU Sustainability Taxonomy for Non-Financial Undertakings: Summary Reporting Criteria and Extension to SMEs*, Ca' Foscari Univ. of Venice Dept. of Econ. Working Paper No. 29/WP/2021 (2021).

Regulation)²²; it can be defined as a green classification system that translates the EU's climate and environmental objectives into criteria for specific economic activities for investment purposes²³.

The Taxonomy Regulation mandates the Commission to establish technical screening criteria for economic activities. The EU Taxonomy serves mainly as a transparency tool by requiring certain companies and investors to disclose their share of Taxonomy-aligned activities. This disclosure enables market participants to compare companies and investment portfolios and make informed investment decisions. Commercial companies can also leverage the EU Taxonomy to plan their environmental and climate transitions and secure financing for these purposes, while financial companies can use it to design credible green financial products. However, there are no obligations on the investors side; they have the flexibility to decide where to allocate their fund and the Taxonomy is expected just to drive progress and encourage a shift towards sustainability in the long term.

The EU Taxonomy has been integrated into the already existing sustainable finance framework, which mainly started with the adoption of the Non-Financial Reporting Directive (NFRD) in 2014²⁴. The NFRD established the initial framework requiring large companies to disclose information on their social and environmental impact, thus addressing the growing investor and stakeholder demand for non-financial information. The directive was aimed at improving the consistency and comparability of non-financial information, enabling stakeholders to make more informed decisions regarding their investments, consumption, and business partnerships²⁵. Notwithstanding this legislative progress,

²² Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, 22.6.2020, p. 13.

²³ European Commission, *FAQ: What is the EU Taxonomy and how will it work in practice?*(2021), available at https://finance.ec.europa.eu/system/files/2021-04/sustainable-finance-taxonomy-faq_en.pdf.

²⁴ Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, OJ L 330, 15.11.2014, p. 1.

²⁵ F. Möslin & K.E. Sørensen, *Nudging for Corporate Long-Termism and Sustainability? Regulatory Instruments from a Comparative and Functional Perspective*, 24 Colum. J. Eur. L. 391 (2018); M. Passador & F. Riganti, *Less Is More in the Age of*

the European Commission proposed the CSRD in April 2021, which was officially adopted on December 14, 2022²⁶ as a reaction to the criticism faced by the NFRD directive, such as its limited scope, the variability in reporting quality, and the lack of specificity in the disclosed information.

The CSRD significantly expands the scope of the reporting activity by introducing more detailed reporting requirements which are much more in line with European Sustainability Reporting Standards (ESRS)²⁷. A crucial aspect of the CSRD is its emphasis on the “double materiality” concept, which requires companies not only to report on their impact on the environment and society but also to disclose how sustainability issues affect the company’s financial performance. This approach reflects a comprehensive understanding of materiality in sustainability reporting, ensuring that disclosures are relevant to both the company and its stakeholders.

Therefore, the transition from the Non-Financial Reporting Directive (NFRD) to the Corporate Sustainability Reporting Directive (CSRD) marks a pivotal evolution in the European Union's regulatory landscape for corporate sustainability reporting. With the CSRD, the EU legislator clearly encourages companies to engage more actively with a wide range of stakeholders, including civil society organizations, workers’ representatives, and the broader public; in this way it aligns with the broader objectives of the EU Green Deal and the sustainable finance agenda²⁸. It

Information Overload: The Paradigm Shift from Shareholder- to a Stakeholder-Oriented Market, 15 N.Y.U. J. L. & Bus. 655 (2019).

²⁶ M. Rescigno, *L'evoluzione e il ruolo dell'informazione non finanziaria fra doveri informativi e obblighi gestori*, 3 Orizz. dir. comm. 632 (2023).

Within the passage from NFRD to CSRD, the European Commission's communications in 2017 and 2019 stand out as pivotal moments.

²⁷ Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards, OJ L, 2023/2772, 22.12.2023.

²⁸ A. Nissen, *The European Union, Emerging Global Business and Human Rights* (2022); C. Villiers, *New Directions in the European Union's Regulatory Framework for Corporate Reporting, Due Diligence and Accountability: The Challenge of Complexity*, 13, Eur. J. Risk Regul. 548 (2022); M. Rescigno, *L'evoluzione e il ruolo dell'informazione non finanziaria fra doveri informativi e obblighi gestori*, cit.; A. Genovese & S. Rossi, *Considerazioni conclusive sulle funzioni dell'informazione non finanziaria*, 3 Orizz. dir. comm. 698 (2023).

accelerates a change in financial markets promoting investment in corporations that are “highly ESG compliant”, posing new obligations on companies regarding sustainability disclosure, and lastly, proposing to ensure human rights and climate standards respect by their entire supply chain.

Not surprisingly, on the other side of the Atlantic, in the summer of 2019 the Business Roundtable (BRT) – the influential think tank of over 200 North American CEOs founded in 1972 by the then CEOs of Alcoa and General Electric – announced a revision of its conception of “purpose” of companies. With this declaration, the members of the BRT pledged to lead their companies for the benefit of all stakeholders and to deliver value not only to shareholders, but also to employees, customers, suppliers, and local communities²⁹. But the debate about corporate purpose began much earlier.

Shortly after the BRT declaration, the World Economic Forum (WEF) - the worldwide organization that includes numerous global companies as well as internationally renowned intellectuals - published a ‘manifesto’ calling on companies to abandon the traditional model of ‘shareholder capitalism’ in favor of a model of ‘stakeholder capitalism’.³⁰ All this seemed to be driven by almost the same vision: in order to overcome the concept of “profit” as the main purpose of corporation, a “pluralist” approach is valued, which takes into account the interests of the various stakeholders. It is therefore a question of overcoming what for decades has established itself as the theory underlying the concept of corporations, namely shareholder primacy³¹, according to which the company’s sole responsibility is to increase its profits, as long as they are fair, an expression of modern capitalism. In the debate on Corporate Purpose - that has always accompanied the development of corporate law albeit with changing intensity³² - the

²⁹ Business Roundtable, *Statement on the Purpose of a Corporation* (Aug. 19, 2019).

³⁰ World Economic Forum, *Davos Manifesto 2020: The Universal Purpose of a Company in the Fourth Industrial Revolution* (2020).

³¹ J.F. Sneirson, *The History of Shareholder Primacy, from Adam Smith through the Rise of Financialism*, B. Sjøfjell & C.M. Bruner (eds.), *The Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* (2019).

³² E. Rock, *For Whom is the Corporation Managed in 2020?: The Debate over Corporate Purpose*, ECGI Law Working Paper No. 515/2020 (2020); H. Fleischer, *Corporate Purpose: A Management Concept and its Implications for Company Law*, 18 Eur. Co. &

critics of shareholder primacy³³ have argued that shareholders and stakeholders are not really contrasting with each other.

The crucial aspect is the meaning given to profit and how this latter is earned. If the corporate purpose is defined as being “to produce profitable solutions for the problems of people and planet, not profiting from producing problems for either”³⁴, and the original meaning of profit in Latin (*profectus*) was to ‘advance’, then, according to Colin Mayer, the current definition of profit must be overcome. In Mayer’s perspective profit is a derivative of solving problems rather than creating them and measurement must consider the costs of resolving and avoiding producing problems. In this situation, a shift occurred in the governance model, moving from a specific focus on ensuring that managerial objectives are aligned with shareholders’ interests to one that encourages the identification and realization of corporate purposes³⁵.

3. Water, Energy, Food and Ecosystems: an integrated Nexus perspective

Climate change, urbanization, and rapid demographic and economic growth, particularly across Africa and the Middle East,

Fin. L. Rev. 161 (2021); V. Knapp, *Sustainable Corporate Governance: A Way Forward?*, 18 Eur. Co. & Fin. L. Rev. 218 (2021); D. Kershaw & E.P. Schuster, *The Purposive Transformation of Company Law*, 68, Am. J. Comp. L. 789 (2020).

³³ See, among others: L.E. Mitchell (ed.), *Progressive Corporate Law* (1995); I. Lynch Fannon, *Working Within Two Kinds of Capitalism* (2003); K. Greenfield, *The Failure of Corporate Law: Fundamental Flaws and Progressive Possibilities* (2008); L.E. Talbot, *Why Shareholders Shouldn’t Vote: A Marxist-Progressive Critique of Shareholder Empowerment*, 76 Mod. L. Rev. 791 (2013); C. Mayer, *Firm Commitment: Why the Corporation Is Failing Us and How to Restore Trust in It* (2013); L.A. Stout, *The Shareholder Value Myth: How Putting Shareholders First Harms Investors, Corporations, and the Public* (2012); C.M. Bruner, *Corporate Governance in the Common-Law World: The Political Foundations of Shareholder Power* (2013); J.G. Ruggie, *Multinationals as Global Institution: Power, Authority and Relative Autonomy*, 12 Reg. & Governance 317 (2018); A. Edmans, *Grow the Pie: How Great Companies Deliver Both Purpose and Profit* (2020).

³⁴ British Academy, *Reforming Business for the 21st Century: A Framework for the Future of the Corporation* (2018); British Academy, *Principles for Purposeful Business: How to Deliver the Framework for the Future of the Corporation* (2019).

³⁵C. Mayer, *Shareholderism Versus Stakeholderism – A Misconceived Contradiction*, 106 Cornell L. Rev. 1859 (2021).

are placing unprecedented stress on existing infrastructure and supply systems, intensifying demand for essential services. It is estimated that by 2030 Africa's water consumption will increase by 283% compared to 2005 levels, food demand by 60% compared to 2015 levels, and electricity demand by 70% compared to 2016 levels³⁶. Under these conditions, it would be simplistic to limit governance frameworks to sectoral silos; Instead, it becomes necessary to recognize the synergies and interdependence among services and to manage the dense web of linkages connecting water, energy, food, and ecosystems within a broader, cross-sectoral governance perspective.

The Water–Energy–Food–Ecosystem (WEFE) nexus has emerged precisely as a response to this need, offering a systemic, cross-sectoral lens for resource governance. However, despite its increasing prominence in policy discourses, the operationalization of WEFE principles often remains at a relatively abstract, macro level. By contrast, the water sector has a longer and more concrete history of governance experimentation, particularly through the paradigm of Integrated Water Resources Management (IWRM)³⁷.

This section takes the WEFE nexus not as a direct object of application, but as a broader conceptual setting that underlines the need for more integrated and participatory governance models. Within this wider frame, it turns into the field of the four (in the acronym WEFE) that is empirically richer, and in which co-governance models appear comparatively more advanced, namely the water sector utilities. By examining how co-governance has been designed and implemented in this field, and how IWRM-inspired principles have been translated into micro-level institutional arrangements, it seeks to identify insights and limitations that may inform debates on resource governance in an increasingly interconnected world.

Given the growing and urgent need to optimize resource use, enhance resilience, and mitigate trade-offs, a holistic perspective, known as *nexus thinking*, emerged. The Water–Energy–Food–Ecosystem (WEFE) Nexus approach was shaped as a call for systemic and integrated resource governance.

³⁶ RES4Africa Foundation, *Accelerating the Energy-Water-Food Nexus in Africa*, (2023).

³⁷ Global Water Partnership, *Integrated Water Resources Management*, Background Paper No. 4 (2000).

The concept itself has a relatively recent origin. In 2009, then UN Secretary-General Ban Ki-moon urged global financial institutions at the World Economic Forum in Davos to place water security at the core of the global development agenda. During the 1990s and 2000s, sustainable development strategies largely centred on Integrated Water Resources Management (IWRM). However, this framework was increasingly criticized as overly water-centric and inadequate in addressing the interdependence among sectors³⁸. In response, the World Economic Forum's 2011 report, *The Water-Energy-Food-Climate Nexus*, marked a paradigm shift towards cross-sectoral integration and resource efficiency. In his seminal contribution, Hoff (2011) further conceptualized nexus thinking as a means of addressing intersectoral externalities³⁹, shifting the focus from productivity within individual sectors to overall system efficiency, and from isolated management to the governance of shared resources and critical cross-sectoral trade-offs.

United Nations agencies such as FAO, UNESCO⁴⁰, UN-Water⁴¹, and UNECE have since institutionalized the WEF Nexus as an integrated framework for policy coherence, resource optimization, and cross-sectoral collaboration. According to the FAO definition, "The water-energy-food nexus is about understanding and managing these often-competing interests while also ensuring the integrity of ecosystems."⁴² The approach promotes participatory governance models and multi-stakeholder partnerships to ensure that synergies among sectors contribute simultaneously to social, economic and environmental sustainability. Despite the strong institutional emphasis on multi-stakeholder collaboration, it remains unclear to what extent WEF-nexus frameworks, as articulated by UN-based institutions, explicitly incorporate Access and Benefit-Sharing (ABS) mechanisms, such as co-management or co-ownership

³⁸ D. Benson, A. Gain & J. Rouillard, *Water Governance in a Comparative Perspective: From IWRM to a "Nexus Approach"* (2015).

³⁹ H. Hoff, *Understanding the Nexus. Background Paper for the Bonn 2011 Conference* (2011).

⁴⁰ UNESCO, *Water Security and the Nexus Programme* (s.d.)

⁴¹ UN-Water, *Water, Energy, Food and Ecosystems Nexus Factsheet* (s.d.)

⁴² Food and Agriculture Organization of the United Nations, *The Water-Energy-Food Nexus: A New Approach in Support of Food Security and Sustainable Agriculture* (2014).

arrangements, into their operational governance models. The governance dimension of the WEF E Nexus remains conceptually fragmented and underdeveloped⁴³. There is no universal definition of what Nexus governance entails: some scholars interpret it as a framework for cross-sectoral policy alignment, while others advocate for its evolution towards participatory and polycentric governance systems⁴⁴.

The Nexus seems to embed co-governance principles in its design, suggesting forms of shared or polycentric organization in WEF E project implementation. Empirical and comparative studies reveal the application of multi-stakeholder fora, basin committees, and resource-sharing agreements, particularly at the watershed or local scale⁴⁵. Yet, top-down institutional arrangements and rigid sectoral frameworks often constrain the full operationalization of WEF E governance, limiting the effective participation of local communities and regional actors⁴⁶. Managing such interconnections remains in fact complex: effective Nexus governance depends on the presence of enabling institutions, structured participatory processes, and shared policy frameworks.

Beyond institutional and academic definitions, empirical evidence indicates that participatory governance and community-driven management have been part of WEF E projects' design. For example, the Matmata region project in Tunisia applied a WEF E-based management plan combining participatory planning, Delphi techniques, and focus groups to co-design strategies for water and land stewardship⁴⁷. Nevertheless, through case studies in Indonesia and Kenya, cross-sectoral policy coordination remains weak, hindered by vertically structured government departments, sector-

⁴³ A. Scott et al., *Making Governance Work for Water–Energy–Food Nexus Approaches*, Climate and Development Knowledge Network Working Paper (2015).

⁴⁴ H. Besser et al., *A WEF E Nexus Management Plan for Sustainable Development of the Matmata Region, Tunisia*, *Frontiers in Water* (2025).

⁴⁵ UNECE, *Policy Guidance Note on the Benefits of Transboundary Cooperation in the WEF E Nexus* (2018). C.E. Mooren, *Water–Energy–Food–Ecosystem Nexus: How to Frame and Govern It* (2025).

⁴⁶ C.E. Mooren, S. Munaretto, D.L.T. Hegger, P.P.J. Driessen & I. La Jeunesse, *Towards Transboundary Water–Energy–Food–Ecosystem Nexus Governance: A Comparative Governance Assessment of the Lielupe and Mesta-Nestos River Basins*, 26 *J. Environ. Pol'y & Plan.* 6 (2024).

⁴⁷ H. Besser et al., *A WEF E Nexus Management Plan for Sustainable Development of the Matmata Region, Tunisia*, cit. at 44.

based regulations, and spatial mismatches between jurisdictions and ecosystems⁴⁸.

Within this debate, a growing body of literature distinguishes between procedural co-governance, deliberative processes that engage multiple actors in planning without altering ownership structures, and substantive co-management, which entails shared decision-making, pooling of common resources, and joint enforcement mechanisms. The former procedural model currently dominates most Nexus applications, where public authorities maintain primary control while engaging communities and private actors in consultative platforms⁴⁹. In contrast, substantive co-management involves actual pooling of common resources and shared authority over their use and monitoring. None of the WEF Nexus cases identified in the literature provide clear evidence of communities assuming legal ownership or formal co-management of natural resource infrastructures. Most initiatives emphasize participation, shared governance, and community empowerment through micro-projects, yet they stop short of recognizing communities as registered co-owners of the resources. To identify instances of genuine community pooling of resources, it may be necessary to examine smaller-scale or localized cases, such as agricultural cooperatives or community-managed irrigation systems, which may not explicitly adopt the “Nexus” terminology but embody its underlying principles. Evidence of such arrangements is observable in small-scale, community-led initiatives such as those in parts of Central Asia^{50,51,52}.

In conclusion, while the WEF Nexus offers a compelling framework for integrated and participatory resource governance, its practical implementation remains predominantly procedural

⁴⁸ Cf. A. Scott, *Making Governance Work for Water–Energy–Food Nexus Approaches*, Climate and Development Knowledge Network Working Paper (2017).

⁴⁹ United Nations Economic Commission for Europe, *Solutions and Investments in the Water-Food-Energy-Ecosystems Nexus: A Synthesis of Experiences in Transboundary Basins* (2021).

⁵⁰ T. Nguyen & H. Tran, *Community-Based Renewable Energy Systems and Water–Food Nexus: A Micro-Hydro Case Study in Vietnam*, (2022).

⁵¹ S. Shrestha et al., *Community Forestry and Water–Energy–Food Nexus: Participatory Watershed Governance in Nepal*, *Frontiers in Sustainable Food Systems* (2021).

⁵² V. Patel et al., *Community-Managed Off-Grid Solar Irrigation Systems in Rural India: A Socio-Technical Study*, (2022).

rather than substantive. While co-governance mechanisms have expanded dialogue and coordination across sectors, genuine co-management, where communities and institutions jointly pool, regulate, and benefit from shared resources, has been so far limited to a handful of localized experiments. Bridging this gap requires institutional innovation, adaptive governance frameworks, and metrics capable of valuing the results of shared resource management.

However, although the Nexus concept has successfully aligned the strategic objectives of most UN institutions and gained wide traction in the literature on sustainable resource management, it continues to face significant challenges in permeating the investment logic and operational frameworks of the financial sector.

Also, due to the growing number of emergencies linked to climate change's devastating effects in the last decade, the incorporation of the WEF Nexus into the investment frameworks of Multilateral Development Banks (MDBs) and Development Finance Institutions (DFIs) has been gaining visibility. Yet, the fragmentation of currently available financing instruments, largely dependent on specific programs, pilot initiatives, and country contexts rather than on systematic institutional transformation, make its integration partial and uneven⁵³. As the concept has only recently been consolidated, most of the available funding is addressed to either water, energy or food projects rather than towards integrated Nexus initiatives. While several institutions have begun to explicitly reference Nexus in their project design frameworks, the approach has not yet become a binding criterion for investment allocation across portfolios.

At a strategic level, there has been a progressive mainstreaming of Nexus-oriented thinking within MDB operational strategies and technical assistance instruments. For instance, the World Bank West Bank and Gaza WEF project, for instance, demonstrates how the WB has introduced analytical frameworks and investment planning tools that link water, energy, and agriculture systems, seeking to capture cross-sectoral co-

⁵³ RES4Africa Foundation, *Financing the Water, Energy and Food Nexus: A Comprehensive Review of Financing Mechanisms for the WEF Nexus*, Nexus Regional Dialogues Programme Phase II (2023).

benefits within the context of climate adaptation and resilience financing⁵⁴. These frameworks inform multi-sector investment planning, but the implementation remains largely program-specific, tailored to national policy environments or regional partnerships rather than universally applied across the institution's financial operations.

Concrete examples illustrate how MDBs and DFIs are experimenting with dedicated Nexus investment mechanisms. The European Bank for Reconstruction and Development (EBRD), for example, launched the NWFE (Nexus of Water, Food and Energy) platform in Egypt, an integrated investment program mobilizing over USD 14 billion to accelerate the country's green transition by coordinating public and private actors around Nexus-linked infrastructure⁵⁵. This initiative demonstrates how MDBs can design national investment platforms that attract co-financing and align policy reforms with resource interdependencies. Similarly, the Asian Development Bank (ADB) integrates Nexus principles into its Water Financing Partnership Facility (WFPPF), which combines blended finance, technical assistance, and policy support to promote water-energy efficiency and agricultural resilience across Asia and the Pacific⁵⁶. These mechanisms rely on hybrid instruments, including guarantees, concessional co-financing, and portfolio risk-sharing, to leverage private investment while maintaining alignment with public sustainability goals⁵⁷.

Nonetheless, structural obstacles continue to hinder the systemic adoption of the Nexus across MDBs and DFIs investment policies. Institutional silos, sector-specific mandates, and fragmented governance architectures within these organizations often limit coordination between departments responsible for water, agriculture, energy, and environmental portfolios.

⁵⁴ World Bank Group, *Examining the Water-Energy-Food Nexus in the West Bank and Gaza within the Context of Climate Change. Water-Energy-Food-Ecosystems Nexus Analytical Framework*, (2022).

⁵⁵ European Bank for Reconstruction and Development, *NWFE Egypt - Nexus of Water, Food and Energy* (s.d.).

⁵⁶ Asian Development Bank, *Water Financing Partnership Facility. Annual Report 202,3* (2023).

⁵⁷ This paragraph was summarized with the support of an AI-based language model and subsequently reviewed and revised by the author.

A recent study made a review of funds project portfolio, analysing how many of them can be considered “WEF-oriented”, in the sense that support the three dimensions of Water, Energy and Food Nexus, generating a shortlist of Funds that answer to this criterion⁵⁸. The analysis showed that 9 funds have an explicit propensity to support WEF-related activities, however despite their high potential to support WEF activities. However, WEF projects are often mistakenly perceived as small-scale applications, an aspect that contributes to the marginal importance that the so-called “nexus element” seems to have within funding institutions. Therefore, funding institutions tend to give limited space and resources to the nexus concept.

The lack of data on available best practices and integrated evaluation methodologies further constrains the capacity to quantify “Nexus impacts” ex-ante and to mainstream them into investment appraisal processes. Moreover, Nexus implementation typically requires country-level regulatory reforms, for example, integrated resource pricing or cross-sectoral infrastructure planning, which depend on national governance contexts and cannot be unilaterally imposed by financial institutions.

In practice, therefore, the WEF Nexus currently represents a strategic orientation rather than a transformative investment paradigm. MDBs and DFIs are entering a phase of experimentation and scalability, developing pilot programs that test Nexus-aligned investment models while assessing their institutional and financial feasibility. The approach has achieved growing salience in programmatic and country-level initiatives, particularly within the water infrastructure sector, yet it has not evolved into a systematic criterion guiding capital allocation across the development finance system. A new category of Nexus-oriented infrastructures is needed at the level of project financing. Future progress will depend on the development of standardized indicators, cross-sectoral budgeting frameworks, and institutional reforms capable of embedding Nexus thinking into the operational logic of development finance design. To effectively advance WEF Nexus financing, it is imperative to establish inter-ministerial coordination mechanisms that overcome traditional sectoral boundaries and to

⁵⁸ RES4Africa Foundation, *Financing the Water, Energy and Food Nexus: A Comprehensive Review of Financing Mechanisms for the WEF Nexus*, cit. at 53.

create dedicated funding streams explicitly designed to support integrated multi-sectoral investments⁵⁹.

4. Corporate Co-governance of Water Management: Theoretical foundations with EU and African Doctrine Evolutions

Otherwise, the “stakeholderism” view that corporations should consider the interests of all stakeholders, including employees, customers, suppliers and communities, focusing on creating long-term sustainable value for all stakeholders rather than just short-term profits for shareholders, does not seem to be enough in the realm of water management sector, and more in general in the context of public utilities companies. This is even more evident if we consider the specific regulatory nature of the water sector in Europe, where authoritative EU-law scholarship repeatedly stresses that⁶⁰ water supply is not simply a market service but a “service of general economic interest” (SGEI), whose governance is constrained by public law obligations rather than shareholder primacy.

The delicate theme of water management needs a model of governance that clearly embeds the responsibility to act according to the common good and to cooperate with governments, civil society, and universities to address challenges related to water. For this reason, it is necessary to develop a new theoretical model of governance. An intriguing starting point for gathering essential references to shape this corporate governance model is the concept of the city, which offers valuable insights and lessons for developing a more socially responsible approach to business. Notwithstanding the different nature of the corporation, a private legal subject, and the city, conceived as a public administrative body, it could be possible to reconcile the two considering the problems of management, ownership and control that they share.

Nowadays cities are recognized as a commons that belongs to all their inhabitants⁶¹. According to Frug whose analysis of the

⁵⁹ *Institutional Barriers to Nexus Mainstreaming in Multilateral Development Finance*, Front. Sustain. Res. Mgmt. (2025).

⁶⁰ R. Greco, *The Liberalization of Water Services under EU Law and the Human Right to Water*, Eurojus 100 (2021).

⁶¹ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions toward Just and Self-Sustaining Communities* (2022).

city as a legal concept is inspired by Mumford’s “City in History”⁶², cities, which lacked power and autonomy in the past, were not initially established as they are today⁶³. In more recent times, the battle against the commodification of city resources and the reappropriation of urban spaces has gained momentum thanks to an international intellectual movement⁶⁴. This movement aims to rebuild urban governance beyond the idea of the “right to the city” as first defined by Lefebvre⁶⁵. Instead, it promotes government-endowment rights that allow decision-making at the local level. The movement also seeks to promote sub-local forms of cooperation that claim urban spaces and city resources as “commons”. These claims go beyond the simple declaration of a “right” to a specific resource. Rather, they assert the existence of a common stake or interest in such resources. The potential for the commons is seen to offer a framework and set of instruments that enable more inclusive and equal forms of “city-making”.

The concept of urban commons is a normative claim to the resource, rather than a mere description of its properties. This definition expands access to a common good by acknowledging the community’s right to use a resource that could otherwise be under sole private or public control. Access is justified by the social benefit or utility that such access would produce for the community. The commons paradigm can provide a bridge between the normative claim to the city (i.e., the right to the city), its resources, and how those resources and the city itself are governed. Building on this conceptual shift, the regulation of Services of General Economic Interest (SGEIs) demonstrates how EU institutions have effectively implemented and consolidated the social market economy principles on which the Union was founded. This confirms that the EU is not merely an instrument of market completion but fundamentally a “Community based on the rule of law”. Also, SGEIs themselves pose a dual nature: they constrain pure free

⁶² L. Mumford, *The City in History: Its Origins, Its Transformations, and Its Prospects* (1961).

⁶³ G.E. Frug, *The City as a Legal Concept*, 93 Harv. L. Rev. 1057 (1980).

⁶⁴ U. Mattei, *Protecting the Commons: Water, Culture, and Nature: The Commons Movement in the Italian Struggle against Neoliberal Governance*, 112 S. Atl. Q. 366 (2013).

⁶⁵ H. Lefebvre, *Le Droit à la ville* (1968).

market logic while simultaneously imposing social and public service- obligations on operators and the EU/state⁶⁶.

This theory offers insights into the resource allocation problem from the perspective of common management. In the urban context, examples of collaboratively managed resources such as neighbourhood streets, parks and open spaces have been identified and analysed. These resources are managed by a group of heterogeneous users, and the ground-breaking element of these user-managed resources is seen not only as a new way of managing urban commons, but also as a democratic innovation for how urban assets are managed and distributed. This perspective puts forward a new way to govern urban commons: urban co-governance, where decisions are made cooperatively between political representatives and citizens⁶⁷.

While the heterogeneity of interests involved in the urban commons is unique to this context, an analogy could be drawn with the heterogeneity of interests that affect corporations today. Just as the commons paradigm seeks to provide a framework for inclusive and equal forms of city-making, so too could corporations benefit from a more collaborative and democratic approach to decision-making that considers the diverse interests of stakeholders. Common theory offers a perspective for imagining a more inclusive and all-encompassing form of 'corporate decision-making'.

According to Deakin, the theory of corporations in law and economics is based on a misguided model of agency conflict. In his view, the corporation is a legal device that should not be confused with its organisational structures. The legal system does not recognise managers as agents of shareholders, nor does it see shareholders as owners of the firm. Instead, there are overlapping, and often conflicting property rights and claims that the legal system must deal with. The commercial enterprise is a 'common good' in the sense that different groups or stakeholders have access to the resources of the enterprise under defined conditions, thereby

⁶⁶ D. Gallo, *Public Services and EU Competition Law: The Social Market Economy in Action* (2020).

⁶⁷ S. Foster & C. Iaione, *Co-Cities: Innovative Transitions toward Just and Self-Sustaining Communities* (2022); S. Foster & C. Iaione, *The City as a Commons*, 34 *Yale L. & Pol'y Rev.* 281 (2016); C. Iaione, *The Co-City: Sharing, Collaborating, Cooperating, and Commoning in the City*, 75 *Am. J. Econ. & Soc.* 415 (2016); C. Iaione, *Governing the Urban Commons*, 7, *Ital. J. Pub. L.* 170 (2015).

protecting and preserving the assets of the enterprise as a source of productive value. The law plays a role in securing this common good, which provides a surplus for the parties involved in the production process and for society as a whole. This change in understanding of the mechanisms of the enterprise is the first step towards a better understanding of the role that the corporate form can play in promoting social justice. The company should be seen not just as a set of contracts, but as an institution with both public and private rights and responsibilities. One way of safeguarding the enterprise as a common good is to extend participation in decision-making, so that decisions affecting the institution and its constituent parts are taken jointly and shared decision-making is possible⁶⁸.

The Urban Commons theory and the development of urban co-governance show that collaborative, shared, and locally-based decision-making is possible. By centring the relationships among the constituencies of an entity, whether it's the city or the corporation, at the core of its functioning, it's possible to create business value and achieve higher integration of environmental and social aspects through new governance models. By overcoming the public/private dichotomy and focusing on the constituencies of the entity, firms and cities can become self-reinforcing entities that evolve and face the same challenges. This resonates deeply with CJEU jurisprudence on water utilities and public-service governance: in *Teckal* (C-107/98), the Court permitted direct public-award contracts when a public authority controls an entity in a way similar to its own departments and that entity performs its core activities for that authority⁶⁹; in *Stadt Halle* (C26/03), the Court clarified that even a minority private shareholding undermines that "in-house" control⁷⁰; in *WAZV Gotha v Eurawasser* (C-206/08), it accepted a water-service concession model in which a private operator assumes limited operational risk while still bearing public-service obligations⁷¹; and in C-922/19 (Dutch "Drinkwaterwet"), the

⁶⁸ S. Deakin, *The Corporation as Commons: Rethinking Property Rights, Governance and Sustainability in the Business Enterprise*, 37 *Queen's L.J.* 339 (2012).

⁶⁹ Case C-107/98, *Teckal Srl v. Comune di Viano*, [1999] E.C.R. I-8121, para. 50.

⁷⁰ Case C-26/03, *Stadt Halle v. Arbeitsgemeinschaft TREA Leuna*, [2005] E.C.R. I-1, para. 52.

⁷¹ C-206/08, *Wasser- und Abwasserzweckverband Gotha (WAZV Gotha) v Eurawasser Aufbereitungs- und Entsorgungsgesellschaft mbH*, Judgment of 10 September 2009,

Court reinforced that water utilities must adhere to transparency, non-discrimination, and public-reporting obligations, thereby embedding governance constraints beyond mere commercial logic⁷². Embedding co-governance into one of these legally recognised forms is therefore not just theoretically appealing, but institutionally and legally viable in the EU water-management context.

In his work Frug has demonstrated that, before the separation of public and private, cities and their craft guilds were able to self-manage themselves and take care of their commons, without a group of interests willing to prevail over the others⁷³. Similarly, firms are deeply connected to their territory and local community, and they have shaped and impacted not only the morphology of cities but also their culture and history. To address present and future challenges, cities and firms need to consider the different groups of stakeholders who hold duties and rights on the entity and set a purpose. From Deakin's perspective, the constituency represents a provider of input, such as employees for firms or citizens for the city, who, because of their contribution to the entity's value, have a say in the decision-making process and the management of the entity as a whole.

Interestingly, African water-rights jurisprudence – particularly in South Africa and Kenya – also underscores the legitimacy and necessity of co-governance in water management. In *Mazibuko & Others v City of Johannesburg* (CCT 39/09), the Constitutional Court recognized water's social embeddedness and the state's duty to progressively realize access, but it declined to establish a *minimum-core entitlement or institutionalize community participation*, highlighting the limits of purely technocratic governance and the need for participatory mechanisms to address socio-economic inequality⁷⁴. Similarly, in *Mshengu & Others v Msunduzi Local Municipality*, the KwaZulu-Natal High Court emphasized the role of water-service intermediaries in extending

ECLI:EU:C:2009:540, para 23–24, <https://eu.vlex.com/vid/judgment-of-the-court-838494029>.

⁷² C-922/19, *Dutch "Drinkwaterwet" case*, Judgment of 3 February 2021, para 15–17, <https://app.livv.eu/decisions/LawLex202100003973JBJ>.

⁷³ E. G. FRUG. *The City as a Legal Concept*, in op.cit., pp. 1057–1154.

⁷⁴ *Mazibuko and Others v. City of Johannesburg and Others* (CCT 39/09) [2009] ZACC 28.

access to marginalized farm dwellers, demonstrating how institutional and legal innovation can operationalize equitable service delivery⁷⁵ In Kenya, *Kimani v Water Services Regulatory Board* affirmed constitutional oversight of water services, reinforcing the regulatory role of intermediaries and the importance of transparent governance⁷⁶. Scholars' critiques stress that *Mazibuko's* failure to call for meaningful community involvement emphasize the necessity of co-governance to promote both social justice and sustainability in water management. Furthermore, analyses argue that participatory governance is essential for effective and equitable water service delivery, when grounded in both rights and resource-management frameworks⁷⁷ legally, institutionally, and socially justified⁷⁸ in African water management, providing a practical and normative model for inclusive, accountable, and sustainable decision-making.

How does this discourse fit into the ESG discussion? By looking at cities as corporations, without being crystallized in the defined specification of private/public nature, the oversight of ESG criteria will be entrusted to all parties interested. By entrusting this role to claimants of different interests, a heterogeneous representation can ensure a long-term, purposeful commitment to social and environmental sustainability. An approach like this is way more needed by the water management sector, which is distinguished by its intricate convergence of environmental sustainability, governance complexities, and the pressing imperative for innovative solutions to address the multifaceted challenges posed by climate change, urbanization, and escalating global demand for freshwater resources.

At its core, water management transcends the traditional boundaries of resource governance, interfacing directly with socio-economic development, environmental conservation, and human

⁷⁵ L. Chamberlain & K. Khunou, *Realising the Right of Access to Water for People Living on Farms: The Impact of the KwaZulu-Natal High Court Decision in Mshengu v. uMsunduzi Local Municipality*, 21 Afr. Hum. Rts. L.J. 573 (2021).

⁷⁶ *Kimani v. Water Servs. Regul. Bd.* (Petition 004 of 2020), [2023] KEHC 22356 (KLR) (High Ct. Nairobi).

⁷⁷ E. Couzens, *Avoiding Mazibuko: Water Security and Constitutional Rights in Southern African Case Law*, 18 Potchefstroom Elec. L.J. 1162 (2015).

⁷⁸ J. Razzaque & E.S. Kleingeld, *Integrated Water Resource Management, Public Participation and the 'Rainbow Nation'*, 6 Afr. J. Legal Stud. 213 (2014).

well-being. This context requires a governance paradigm that is both adaptive and integrative, capable of reconciling the objectives of water accessibility, resource sustainability, and ecological integrity. The distinctiveness of water management governance arises from the sector's need to address the dual character of water as both a vital, life-sustaining resource and a significant economic asset. This duality introduces specific regulatory challenges and opportunities for developing governance models that balance public welfare with the economic valuation of water services⁷⁹. Comparative legal scholarship supports this perspective: European Union doctrine highlights that services of general economic interest (SGEIs) embody social and public values in addition to market efficiency, granting Member States considerable authority to define public service obligations beyond mere outsourcing. In contrast, constitutional and academic debates in South Africa emphasize the right to water and community participation as essential components of equitable governance.

Collectively, these bodies of literature advocate for moving beyond traditional governance models, which are primarily defined by public or private ownership structures. Instead, they increasingly support more nuanced, hybrid approaches that prioritize stakeholder engagement, decentralized management, and the integration of community-based systems.

The imperative to adopt integrated water resource management (IWRM) principles further highlights the sector's unique characteristics⁸⁰. IWRM promotes a holistic approach that encompasses the entire water cycle, including precipitation, distribution, usage, treatment, and return to the environment. This framework emphasizes the interdependence of water with agriculture, urban development, energy production, and ecosystem services, and calls for policies that optimize water's multiple values while ensuring sustainability. Additionally, the global dimension of water challenges, such as transboundary management and the international impacts of scarcity and pollution, necessitates a governance framework that incorporates global cooperation and coordination. Addressing these complexities requires navigating

⁷⁹ J. Venot, *Water: A Commons Beyond Economic Value*, 618 *Nature* 675 (2023).

⁸⁰ G. Meran, M. Siehlow & C. von Hirschhausen, *Integrated Water Resource Management: Principles and Applications*, in *The Economics of Water* (2021).

international treaties, shared resources, and collective action problems inherent in managing common-pool resources. Within the broader context of sustainability governance, case studies from the water sector demonstrate the practical outcomes of various governance models, including state-led initiatives, private sector participation, community-based management, and public-private partnerships.

5. Case study analysis

This study employs a qualitative case study methodology to validate the theoretical framework of sustainable co-governance in the water sector. The analysis centres on four core dimensions: *Purpose and Stakeholders*, *Internal Governance*, *Integration*, and *ESG Performance*. These dimensions are derived from the literature on co-governance, socially responsible corporate behaviour, and sustainably integrated water resource management. Three water utilities – Glas Cymru (UK), Runda Water (Kenya), and Acquedotto Pugliese (Italy) – serve as case studies. Each case is analysed and reported using these dimensions to ensure systematic comparison. Data collection relies primarily on qualitative data from semi-structured interviews with subject-matter experts, including co-founders, former CEOs, general managers, and consultants of the selected utilities. Secondary data from company reports further enriches the analysis. The study evaluates specific variables to assess the role of water utilities as global providers of water services across the four dimensions. It investigates innovative, sustainable governance models based on enhanced corporate governance practices, with the aim of addressing gaps in the sustainability efforts of water service providers, as illustrated by the selected cases.

The *Purpose and Stakeholders* dimension examines the prioritization of long-term value creation in planning, engagement with local communities and the environment, equitable value distribution among stakeholders—including employees, customers, suppliers, and the broader community—and the incorporation of stakeholder input into decision-making. This dimension also considers the utility's ownership structure and its influence on corporate purpose and stakeholder relations.

Internal Governance focuses on transparency and accountability mechanisms, including reporting practices, reward systems for ethical and sustainable behaviour, enforcement of codes of conduct, and measures to ensure management independence and prevent conflicts of interest. Ownership structures are also evaluated for their impact on governance practices and managerial accountability.

Integration concerns the extent to which policy integration is incorporated into the water utility's strategic plan. Both the Nexus and Integrated Water Resources Management (IWRM) approaches involve parallel integration of water and policy sectors. A key distinction is that IWRM integrates all sectors from a water management perspective, whereas the Nexus approach treats sectors such as water, energy, food security, and climate as equally important from the outset.

ESG Performance evaluates processes for identifying and mitigating environmental and social risks, integrating social responsibility initiatives, including labor practices, diversity, and inclusion – and adhering to ESG principles within supply chains. It also examines mechanisms for measuring, reporting, and improving performance on ESG goals.

5.1 Glas Cymru

An innovative corporate structure in the UK water sector is the case of Glas Cymru Holdings Cyfyngedig ("Glas") and its subsidiary Welsh Water. Following the 1989 privatization of the UK water sector under Prime Minister Margaret Thatcher, Glas emerged as an innovative entity seeking to acquire and operate Welsh Water. Unlike traditional shareholder-driven companies, Glas operates as a company limited by guarantee, with a governance structure comprising approximately 50 qualified local members overseeing its operations. These members, devoid of financial stakes, ensure that Glas prioritizes its *purpose* in the best interests of its customers and the Welsh community.

Glas's *ownership structure* was designed based on both moral and financial rationales. Morally, Glas sought to serve customers by reinvesting profits into service maintenance and reducing water bills. Financially, eliminating shareholders allowed Glas to access bond markets at favourable rates, reducing reliance on costly equity

capital. This model aimed to enhance Welsh Water's legitimacy, aligning bondholders and customer interests. Despite initial scepticism from Ofwat and the UK government regarding the separation of asset ownership from operational responsibility, Glas secured support from the National Assembly for Wales and civil society groups. In May 2001, Glas successfully acquired Welsh Water from WPD for £1.9 billion, financed through non-government-backed corporate bond issues. Currently, Welsh Water provides drinking water and wastewater services across Wales and parts of England, demonstrating how innovative corporate structures can advance customer and community interests in essential public services.

Welsh Water's purpose-driven vision is encapsulated in its Welsh Water 2050 strategy, which aims for a resilient and sustainable water service, particularly in response to climate change. The company's financial surpluses are reinvested into long-term objectives, prioritizing environmental and customer benefits rather than profit maximization. Its stakeholder engagement extends beyond customers and regulators to include community organizations, ensuring alignment with broader social and environmental goals.

By supporting local communities, Welsh Water fosters trust by engaging in educational outreach, offering visitor attractions, hosting events at wastewater sites, and managing a £100,000 Community Fund for local and international initiatives. It supports over 80 local organizations focused on environmental sustainability and community resilience, particularly post-COVID-19. Additionally, Welsh Water has committed to improving drinking water quality, reducing network leakage and pollution incidents, replacing lead pipes, and expanding social tariff schemes. These efforts contribute over £1 billion annually to the Welsh economy and sustain more than 9,000 jobs. The company also aims for carbon neutrality by 2040 through investments in low-carbon and nature-friendly initiatives.

In tackling environmental challenges, Welsh Water prioritizes reducing its impact on river water quality. It has committed significant environmental investments during the final years of AMP7 and into AMP8 (2025-2030). The company's Manifesto for Rivers in Wales and its Drainage and Wastewater Management Plan further underscore its commitment to

environmental stewardship. Additionally, *integration* with the energy sector remains a priority, with ongoing investments in renewables to achieve energy neutrality by 2025.

The company collaborates with farmers on governance development and sustainable practices, reflecting the sector's close ties to water resources. It supports food access initiatives, including Cardiff Foodbank, and promotes local food culture by participating in the Royal Welsh Agricultural Show and Cardiff Food Festival⁸¹. Its social responsibility commitments extend to labour practices, diversity and inclusion, and community engagement, ensuring adherence to ESG principles across its supply chain.

Welsh Water's *governance* model ensures transparency and accountability through annual performance reports, financial disclosures, and stakeholder engagement forums such as the PR24 Forum. Its membership system, devoid of shareholders, enables long-term strategic planning, focusing on service quality and environmental sustainability. Ethical and sustainable business practices are reinforced through performance-based incentives, linking executive rewards to key performance indicators on customer satisfaction and environmental outcomes. Employees adhere to a code of conduct emphasizing integrity, respect, and accountability, supported by whistleblowing policies ensuring ethical governance.

To maintain independence and mitigate conflicts of interest, the company appoints a majority of independent non-executive directors to its board, ensuring impartial oversight. The nomination committee ensures board diversity and expertise, reinforcing Welsh Water's governance integrity. The company's *ESG performance* is overseen by a dedicated ESG Committee, which develops and implements its ESG strategy, setting objectives, targets, and performance indicators across environmental, social, and governance areas. The ESG Committee ensures the company adheres to best practices in sustainability, aligning its operations with international ESG standards and regularly reviewing its impact across multiple dimensions.

Welsh Water places strong emphasis on ESG measurement and reporting, regularly assessing progress toward sustainability

⁸¹ Dŵr Cymru Welsh Water, Wellbeing Report 2020-2025, available at <https://www.dwrcymru.com/en/our-company/wellbeing-commitment>.

goals. Reporting aligns with global frameworks, such as the Task Force on Climate-related Disclosures (TCFD) and the UN Global Compact. The company has received a ‘Good’ ESG profile rating from Sustainable Fitch, affirming its commitment to transparency and sustainability.

Overall, Welsh Water’s unique corporate model exemplifies a stakeholder-driven approach to delivering essential public services. Its governance and financial structure support *long-term reinvestment*, balancing economic, social, and environmental responsibilities while maintaining *accountability and transparency*. This case highlights how alternative corporate structures can successfully serve public interests in privatized sector⁸².

5.2 Runda Water

Established in 1973 under the Kenyan CAP 46 law, Runda Water Limited was created to fulfil the water supply demands of Runda Estate, which the Nairobi City Council was unable to satisfy. The initiative, originally started by Mae Properties Limited in 1972, led to the provision of piped water to the residents of Runda Estate by 1975. In a significant shift in 2003, Mae Properties Limited divested 75% of its shares to the estate’s residents via the Runda Association. Today, RWL operates as a semi-consumer-owned utility, governed by the Runda Residents Association and Sanlam Limited, with a dedicated committee managing daily operations and a board of directors for strategic decisions, all within a Public-Private Partnership framework. RWL’s mission is to deliver reliable water services, adhering to the Water Act 2002, under the oversight of regulatory authorities such as the Athi Water Services Board, Water Services Regulatory Board, and Water Resource Management Authority.

The company’s primary intake facility is a reinforced concrete weir situated across the Ruaka River, marking the boundary between Old Runda estate and Karura forest. This structure channels raw water through 200mm Upvc class D rising mains over a distance of roughly 2,000 meters to the treatment plant. The treatment plant is located on Runda Grove. This facility processes and supplies water to Old Runda and Runda Mimosa

⁸² Parts of this paragraph were condensed with the support of an AI-based language model and subsequently reviewed and revised by the author.

Estates. Additionally, RWL has two principal storage tanks and staff residences, including a 100 cubic meter tank which will serve 82 housing units upon completion. The company's Water Quality Control Laboratory is responsible for analysing both raw and treated water, ensuring adherence to quality standards. With a staff of 20, including a specialized team of 10 handling tasks such as plumbing, meter reading, and plant operations, RWL is committed to maintaining the highest levels of service and quality.

Through the lens of *purpose* and *stakeholders*, *internal governance*, and *Environmental, Social, and Governance (ESG)* performance, RWL's strategic approach encompasses a multifaceted perspective, emphasizing organizational direction, community engagement, and transparent governance structures to achieve sustainable outcomes. Runda Water Limited (RWL) prioritizes long-term planning through the regular review and revision of its Strategic and Business Plans every four years. These plans ensure organizational direction, project clarity, and effective communication, incorporating various tools and metrics for successful planning. The company's strategies encompass the development of new water supplies, conservation, re-use, demand management, and the optimization of existing resources to maintain a self-sustaining water supply system. RWL's five-year Business Plan demonstrates financial, managerial, and technical capability to meet performance requirements, even under adverse conditions, ensuring reliable water service provision to the Runda community⁸³.

In demonstrating its commitment to the local community and the environment, RWL allocates an annual budget for Corporate Social Responsibility (CSR) activities, including the protection of natural resources, support for local communities through infrastructure donations, and sponsorship of underprivileged students. Additionally, the company has implemented an artificial wetland to aid in water conservation and biological purification.

Policy *integration* is also demonstrated by the fact that the company has not limited itself to the sustainability of the water

⁸³ Parts of this paragraph were condensed with the support of an AI-based language model and subsequently reviewed and revised by the author.

cycle but has already made some improvements in other areas. It started by making the reduction of energy consumption (by 10% per year) a central part of its strategic plan from 2018 onwards. This will be accompanied by a gradual transition to renewable energy (20% by 2020) and a reduction in energy consumption in general. However, Runda's services are already being expanded, such as waste collection. Rubbish is collected from all residential buildings three times a week, and garden waste and building rubble can also be collected for a fee⁸⁴.

To ensure fair distribution of value to *stakeholders*, RWL has policies for equity distribution of resources and services, and actively engages them through quarterly meetings, monthly newsletters, and consultations on tariff reviews and infrastructural projects. Stakeholders are encouraged to provide feedback, complaints, and compliments directly to the Board, fostering transparency and inclusivity in decision-making processes.

Runda Water Limited (RWL)'s *internal governance* ensures transparency and accountability in its governance practices by submitting monthly reports to the Board and regulators, covering operational, financial, and regulatory aspects. These reports are discussed in monthly Board meetings to address any areas of concern. Additionally, RWL allows customers to query their bills and meter records, escalating unresolved issues to the Board and regulators for resolution.

To incentivize ethical and sustainable practices, RWL employs reward mechanisms such as annual salary increments, bonuses, and certificates for exemplary service. Employee performance evaluations are conducted annually by their respective Heads of Departments. The company upholds a code of conduct, reviewed biennially and updated as necessary to ensure compliance with ethical principles. RWL maintains the independence and integrity of its management team through clear contracts of employment outlining expectations and relations with the Board and Committee Members. The company fosters a culture of open dialogue and diversity of thought, encouraging prompt and transparent resolution of conflicts and promoting independent thinking among the management team.

⁸⁴ Runda Association Services, Home, available at <https://rundawater.co.ke/home/>.

RWL's approach to *ESG performance* is characterized by formal process for identifying and addressing environmental and social risks associated with its operations. This includes an annual review of risk mitigation measures, which involves identifying, analyzing, prioritizing, treating, and monitoring risks to ensure appropriate responses. In terms of social responsibility, RWL engages with the local community and stakeholders through forums to address issues affecting their relationship. To ensure adherence to Environmental, Social, and Governance (ESG) principles and standards within its supply chain, RWL requires suppliers to update pre-qualification documents every two years and follow laid-down regulations during tendering and approval processes.

RWL measures and reports on its progress towards achieving ESG goals and targets using clear and measurable metrics such as water treatment, employee turnover rates, and board diversity. The company ensures consistency in its approach to avoid confusion and engages an external consultant to evaluate performance and provide feedback for improvement. To enhance performance over time, RWL visualizes its ESG performance statistics for stakeholders, connects ESG performance with financial results to incentivize stakeholders, shows ESG performance trends over time, and reiterates end goals to maintain focus and alignment in achieving its objectives⁸⁵.

5.3 Acquedotto Pugliese

Acquedotto Pugliese, abbreviated as "AQP" was established in 1902 during the Kingdom of Italy era, prior to the formation of the Italian Republic. Initially, it operated as a consortium between the State and the provinces of Bari, Foggia, and Lecce, with the aim of constructing, maintaining, and operating water supply systems to provide clean water throughout the Puglia region. The inception of this vision took place on April 24, 1915, when clean water was first delivered to Bari and subsequently to 27 other communities, marking a significant historical achievement.

Throughout its existence, AQP has remained under *state ownership*, initially operating as the "*Ente Autonomo per la*

⁸⁵ Parts of this paragraph were condensed with the support of an AI-based language model and subsequently reviewed and revised by the author.

costruzione, manutenzione ed esercizio dell'Acquedotto". In May 1999, a notable transformation occurred when it transitioned into a joint-stock company, AQP SpA, with the Apulian Region as its sole shareholder. Despite this change, AQP continues to function as a publicly owned entity dedicated to the management of integrated water services. In 2022, Acquedotto Pugliese (AQP) gained recognition as a prominent player in water distribution within Italy, being among the largest and most influential companies in the sector. According to its official website, AQP currently operates across the Apulia and Campania regions (specifically Ambito Calore Irpino), holding the top position in terms of community service, employee count, and revenue among pure water utility providers. AQP's services extend to numerous municipalities, encompassing water supply, sewage systems, and water treatment facilities.

A distinguishing factor that sets AQP apart in the Italian industrial scene is its strong dedication to sustainability. Moreover, AQP's future growth prospects appear promising, supported by its robust financial performance and a notable commitment to research and development, as evidenced by its participation in 18 funded research initiatives. The consistent accolade of the "*Industria Felix Prize*" for five consecutive years underscores Acquedotto Pugliese's (AQP) commendable management performance and financial stability.

Additionally, in June 2023, the group received the esteemed "High Balance Sheet Honour" as the premier company in the energy and utility sectors headquartered in Apulia. AQP's latest Integrated Report highlights a noteworthy production value surpassing EUR 741.7 million, marking a 15% increase from 2021, alongside a substantial investment surge totalling EUR 312.8 million (+37%) aimed at enhancing citizen services and environmental conservation.

Looking towards the future, AQP is charting a path to evolve into a multi-utility entity, aligning with its commitment to sustainable development as delineated in the 2022-2024 Sustainability Plan endorsed by the Board of Directors in December 2021. This vision is seamlessly integrated into the new Strategic Plan for 2022-2026, boasting a total investment of EUR 2 billion. The strategic pillars encompass water resource protection, energy transition with a focus on renewable energy expansion, and the

promotion of circular economy initiatives⁸⁶. AQP aims to exploit the natural synergies between the water, energy and waste sectors. It is a circular approach with a clear tendency towards policy *integration* and nexus thinking. On the one hand, it is committed to meeting the demands of the energy transition by reducing consumption and switching to renewable sources; on the other hand, the circular economy is a cornerstone of the company, allowing waste to be turned into value. Examples of this are the plants built to produce gypsum from faeces and for composting (biogas from human waste)⁸⁷.

Acknowledged for its outstanding communication efforts, AQP is recognized among the Best in Media Communication for its commendable work in 2022, marking its second consecutive year of distinction. The company's media communication strategies are rigorously evaluated and certified based on scientific and objective criteria, as part of the prestigious communication award established by Fortune Italia and Eikon Strategic Consulting. Furthermore, AQP's commitment to knowledge dissemination and skill enhancement is exemplified through the establishment of the AQP Water Academy, aimed at fostering expertise in integrated water service management, promoting superior standards of management and quality.

In its decision-making process, Acquedotto Pugliese (AQP) manifests a priority commitment to *long-term planning* and the achievement of sustainable objectives. This is evident in the Sustainability Plan 2022-2024, adopted in December 2021, which is divided into specific short- and medium-term objectives that are carefully monitored on a quarterly basis. Actions are identified through constant monitoring of reference scenarios, which includes the analysis of determining factors for activities, such as EU, national and regional regulations, and ARERA's regulatory guidelines. In addition to the main offices in various cities, in 2023 supplemented the offer with new services through Online Municipal Desks. This approach aims to provide proximity services to communities, optimizing travel and reducing environmental impact through enhanced digital services. Finally, to involve

⁸⁶ Parts of this paragraph were condensed and translated with the support of an AI-based language model and subsequently reviewed and revised by the author.

⁸⁷ Acquedotto Pugliese, Piano Strategico 2022-2026, available at <https://www.aqp.it/perche-acquedotto/il-piano-strategico>.

stakeholders in decision-making processes, AQP has launched a three-year engagement plan in 2023, intensifying meetings with key political and institutional, national, and local stakeholders.

The corporate governance of Acquedotto Pugliese (AQP) is based on principles of transparency and accountability, highlighted through the establishment of a Sustainability Committee and the adoption of clear and regulated communication practices. Since 2023 a Sustainability Advisory Board with representatives from academia and institutions. In order to incentivize ethical and sustainable practices, AQP assigns variable annual remuneration to managers, in relation to which (based on a specific agreement with the relevant R.S.A.) specific objectives and related weightings are set, which have an impact on the company targets set for the year by the Strategic Plan. Targets are based on the organization, productivity and profitability of the Company, on the local economy, on the environmental and sustainability choices that AQP has identified among its goals, as well as on citizens. The company has implemented a Code of Ethics and Conduct as an integral part of its Organization, Management and Control Model, with the aim of preventing unlawful behaviour. Finally, in order to ensure independence and avoid conflicts of interest in its management team, AQP has the Three-Year Plan for the Prevention of Corruption and Transparency (PTPCT).

Within the realm of *ESG performance*, Acquedotto Pugliese (AQP) has established a structured methodology for identifying and mitigating potential environmental and social risks inherent in its operational activities. In collaboration with the CMCC Foundation, AQP conducted a comprehensive assessment focused on climate risks and the vulnerability of its integrated water system, particularly emphasizing the security of water resources in the Puglia region. This initiative aims to comprehensively evaluate both the qualitative and quantitative aspects of projected climate impacts and risks spanning up to the year 2050. In the context of social responsibility, AQP demonstrates a proactive commitment to advancing gender equality and enhancing the well-being of its employees' families. By adhering to the UN Women's Empowerment Principles and implementing robust welfare policies, the company offers an array of support measures, including bonuses for employees' children, contributions towards daycare expenses, recognition awards for scholastic and academic

achievements and psychological support programs. Moreover, to ensure alignment with ESG standards across its supply chain, AQP mandates adherence to its Code of Ethics and encourages suppliers to disclose sustainability-related information through a dedicated online portal. Furthermore, stakeholder engagement initiatives have been instituted to communicate AQP’s commitment to ESG principles and foster the adoption of sustainable practices among its partners and suppliers. Lastly, AQP evaluates its progress towards ESG objectives by leveraging its Sustainability Plan and compiling an annual Sustainability Report, which undergoes rigorous assessment and approval by the Board of Directors. This reporting framework adheres to GRI standards, enabling the identification of areas necessitating improvement and facilitating the implementation of corrective measures over time⁸⁸.

6. Findings

Before drawing conclusions, it is useful to summarize the results of the comparison. They are presented in three different tables showing *common factors*, *strengths* and *challenges* of the companies and *different contexts* that the analysis highlights.

Common Factors of efficient Water Management⁸⁹:

Table 1 - Common factors

| Factor | Implementation |
|-------------------------------|--|
| Strong Stakeholder Engagement | Glas highlights the significance of member involvement and local ties in shaping its purpose and driving social impact. RWL emphasizes the importance of collaborative decision-making with a diverse group of stakeholders, including investors, NGOs, and the local community. AQP, while publicly owned, prioritizes citizen engagement through mechanisms like citizen fees and involvement in strategic planning. |

⁸⁸ Parts of this paragraph were condensed and translated with the support of an AI-based language model and subsequently reviewed and revised by the author.

⁸⁹ Some of the data presented in this table was classified with the support of an AI-based language model. The final content was reviewed and revised by the author.

| | |
|-------------------------|---|
| Focus on Sustainability | Glas, through its not-for-profit model, prioritizes reinvesting in infrastructure and water quality. AQP focuses on smart water management, artificial intelligence, and network rehabilitation to enhance service efficiency and sustainability. RWL emphasizes a community-oriented approach that considers the long-term environmental and social impacts of its activities. |
| Financial Stability | Glas demonstrates that even with a social purpose, financial performance remains critical for long-term success. AQP relies on citizen fees and government support. RWL, as a private entity, highlights the financial challenges faced by private utilities, emphasizing the need for diverse funding sources. |
| Integration | All three companies pay particular attention to the energy sector and energy transition, albeit with some differences in action. Glas also gave importance to agriculture and food, while Runda and AGP put more emphasis on circularity and waste valorisation. |

Factors Specific to Each Utility⁹⁰:

Table 2 - Strengths and Challenges

| Utility | Strengths | Challenges |
|-------------------------|--|---|
| Glas (Membership-Based) | Strong social impact, high customer satisfaction, and long-term financial stability. | Potential for limited scalability, potential for complacency if not subject to sufficient external oversight. |
| AQP (Public Ownership) | Broad access to water services, strong government support and funding, focus on innovation and technology. | Potential for bureaucratic inefficiencies, challenges in balancing political considerations with sustainable resource management. |

⁹⁰ Some of the data presented in this table was classified with the support of an AI-based language model. The final content was reviewed and revised by the author.

| | | |
|---------------------------------------|--|--|
| RWL (Community-Owned Private Utility) | Strong community engagement, deep understanding of local water needs, flexibility for agile decision-making. | Potential for limited scalability, challenges in attracting and retaining talent, vulnerability to financial constraints due to reliance on private funding. |
|---------------------------------------|--|--|

Factors Specific to Different Contexts⁹¹:

Table 3 - Different Contexts

| Factor | Implementation |
|--------------------------------|---|
| Community Context | The importance of considering the specific community context, including community size, diversity, and existing social structures. A community-owned model may work well for RWL but may face challenges when applied to larger or more diverse communities. |
| Regulatory Environment | The regulatory environment plays a crucial role in shaping the success of water utilities. Overregulation, as seen in the Kenyan context, can create challenges for private utilities. Streamlined regulatory frameworks and reduced burdens on water companies are essential for sustainable operations. |
| Level of Community Involvement | Community involvement can vary significantly across different contexts. While some communities may actively participate in water management decisions, others may prefer to rely on government action. |

7. Discussion and Conclusion

The disparity between the Global North and South significantly shapes water utility governance, leading to distinct approaches informed by historical, socio-political, and economic contexts. The three utilities examined exemplify effective governance models and offer insights into both single and multi-utility frameworks. Glas integrates social purpose into its corporate

⁹¹ This paragraph was condensed with the support of an AI-based language model and subsequently reviewed and revised by the author.

structure, setting itself apart from organizations that make only rhetorical commitments. Its membership-based, non-shareholder model fosters economic stability and social advancement, as demonstrated by high credit ratings, lower consumer costs, and strong operational performance. However, maintaining financial viability alongside social commitments necessitates proactive management, as external assessments, particularly by bondholders, remain focused on financial outcomes. Glas reinvests infrastructure and water quality through private-sector bonds rather than distributing shareholder dividends, enabling it to function as a not-for-profit entity aligned with stakeholder interests. In contrast, AQP, a publicly owned utility, finances its operations through citizen fees and prioritizes infrastructure investment, AI-driven smart water management, and sustainability initiatives. RWL, a private company with significant consumer ownership, employs a community-centric approach by engaging investors, NGOs, and government entities in strategic water planning.

Customer and community engagement are essential, particularly in regions with strong local identities. RWL exemplifies this participatory model, as its 11,000 Nairobi-based consumer-owners elect representatives to influence governance. This structure enhances transparency, accountability, and responsiveness by employing a compact organizational framework that facilitates direct consumer interaction. Multilevel governance is crucial, as Italian water management demonstrates the value of public deliberation and community participation. Large-scale utility management improves efficiency and cost-effectiveness, and both public and private approaches can coexist effectively. Nevertheless, external oversight remains necessary to prevent complacency, even within socially responsible organizations such as Glas. Environmental, social, and governance (ESG) performance must reflect substantive commitments rather than function as performative rhetoric. Kenya's regulatory framework presents challenges because the state serves as both regulator and revenue administrator, creating conflicts of interest. This situation highlights the need for regulatory streamlining and tax reforms to alleviate financial burdens on private utilities such as RWL, which rely on external funding for infrastructure investments.

Public utilities depend on government funding for financial sustainability, while private enterprises like RWL face capital

constraints that limit expansion and investment. Although community ownership fosters engagement, scalability remains difficult in larger, demographically diverse regions. Overreliance on affluent consumers may exacerbate disparities in water access. Furthermore, not all consumers wish to participate actively in governance, preferring standardized government regulations. Nonetheless, strong local ownership enhances adaptability and long-term sustainability. Not-for-profit models support sustainable water management by reinvesting revenues into infrastructure and prioritizing stakeholder needs over profit, aligning with responsible governance principles. However, reliance on external debt financing introduces financial risks and increases long-term liabilities. The absence of profit incentives may also constrain innovation and operational efficiency in certain cases. Balancing stakeholder interests with technological advancement remains challenging, as profit-driven incentives often stimulate innovation. Despite these challenges, the not-for-profit model offers long-term benefits by prioritizing reinvestment over shareholder dividends, although dependence on external debt can create financial vulnerabilities.

Policy integration remains limited, with water governance gradually expanding to include energy transition, climate resilience, and, to a lesser extent, agri-food and waste management. Although the scope of this study is narrow, future research should investigate additional case studies and integrated policy approaches, emphasizing cross-sector alignment through the development of the Nexus framework. While the Nexus paradigm provides a promising model for policy coherence, it is not the only framework capable of supporting integrated governance. Achieving cross-sectoral coordination requires institutional agility and regulatory refinement. The findings indicate that broader governance mechanisms spanning multiple tiers are essential for improving policy coordination and implementation effectiveness. The effectiveness of water management strategies depends on adaptability, governance, and stakeholder alignment. Glas achieves long-term stability through its reinvestment strategy and financial prudence, which mitigate short-term external pressures. In contrast, publicly owned AQP relies on citizen fees to modernize infrastructure and implement AI-driven operational efficiencies. RWL's consumer ownership model facilitates democratic decision-

making, allowing Nairobi residents to influence financial allocations for infrastructure and social initiatives.

Regulatory frameworks play a critical role in shaping water governance. Italian utilities benefit from robust public discourse and participatory engagement, which enhance operational efficiency. However, even socially responsible entities such as Glas require regulatory oversight to prevent complacency, underscoring the importance of substantive ESG commitments. In contrast, Kenya's regulatory overreach, where the state acts as both regulator and revenue administrator, imposes financial constraints on private utilities such as RWL, limiting their investment capacity. Decentralized governance models consistently demonstrate greater operational effectiveness than centralized frameworks. Financial sustainability varies across governance models. Publicly funded utilities depend on government allocations to ensure universal service, but they must also address bureaucratic inefficiencies. Private-sector models, such as RWL, utilize alternative financing mechanisms that foster innovation but face scalability challenges and funding volatility.

Economic disparities in service access persist, particularly when utilities prioritize high-income consumers. Although not all communities seek active participation in water governance and may prefer standardized state-mandated frameworks, localized ownership enhances adaptability and long-term sustainability. Institutional hybridity, where water utilities balance public-service mandates and market dynamics, shapes governance structures. Political pressures and community expectations influence corporate trajectories. Public utilities, supported by government funding, achieve broad service coverage but must manage political interference while maintaining sustainability imperatives. Glas exemplifies the viability of hybrid governance, demonstrating the coexistence of social responsibility and financial resilience.

In conclusion, water management frameworks must adapt to diverse socio-political contexts, financial environments, and stakeholder dynamics. Although each case study demonstrates unique governance strengths, the primary requirement is continuous policy refinement, institutional adaptability, and comprehensive regulatory oversight to ensure long-term resilience and sustainable management of water resources.

MANAGING OVERTOURISM TO PRESERVE URBAN LIVEABILITY: TRADITIONAL SOLUTIONS AND NEW GOVERNANCE APPROACHES

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Abstract

The article addresses the issue of overtourism from a legal and economic perspective. In particular, the phenomenon is analysed based on Weitzman's economic theories, considering which more traditional regulatory approaches are criticized. The analysis relies mainly on Italian case studies, such as the restrictions and taxes imposed on access to certain cities, including Venice, and some seaside destinations, also comparing the different regulatory choices made by some of Italy's major cities and the outcome of the judgments involving them before the Administrative Courts. Ultimately, the hypothesis is that there is a need for a collaborative governance approach to tourism as a third way, in addition to the "Weitzman" approach, to be implemented through partnership models. Examples of this include Community Land Trusts, which are beginning to establish themselves in Italy as participatory foundations, and innovative solutions tested in public policy programs such as Smarter Italy. Finally, the issue of overtourism is addressed from a comparative perspective, also in relation to areas that have recently become tourist destinations, such as Africa, highlighting how similar solutions are emerging in this case too, starting with Community Land Trusts.

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1. Introduction: overtourism and urban liveability

There is a close and well-studied correlation between the development of the physical territory, the evolution of economic relations, the usability of the territory and ultimately the well-being of the people who, for various reasons, relate to it. In general, it can be observed, for example, that a tendency towards concentration is inherent to the process of urbanization that has been ongoing since the Industrial Revolution and leads the UN to estimate that 70% of

people worldwide will live in cities by 2050¹, increasing territorial disparities and giving rise to social, economic and environmental problems in the absence of careful planning that also takes global phenomena into account².

It is precisely the evolution of economic relations that has turned tourism, once an elite activity, into a veritable mass industry. As a result, the concentration experienced in urban centres in many other respects, including primarily that of vehicular traffic³, is also emerging critically in this sector, creating the phenomenon known as overtourism.

A reliable definition could be the one provided in a study commissioned by the European Parliament, where overtourism is described as “the situation in which the impact of tourism, at certain times and in certain locations, exceeds physical, ecological, social, economic, psychological, and/or political capacity thresholds”⁴, underlying overall the negative impact of the crowding effect and the lack of readiness to tackle the consequences.

The European Parliament’s Committee on Transport and Tourism (TRAN) dealt with the problem of excessive tourism due to prominent legal, social and environmental concerns: overtourism, in fact, poses issues that have an impact on EU Treaty principles, including residents’ quality of life, the access to housing and public spaces and the environmental integrity⁵, which are linked to obligations under EU environmental law and sustainable development goals (SDGs). TRAN observed that this phenomenon has outpaced policy making, and that national and local authorities struggle to regulate its effects. The strategies that public authorities are called upon to implement to combat the negative effects of

¹ United Nations, Department of Economic and Social Affairs, *Population Division, World Urbanization Prospects 2018: Highlights* (2019).

² C. Iaione, L. Kappler, *Governing the extreme: self-sustainable diverse co-cities for just adaptation*, 66 Riv. Giur. Edil. 373 (2025).

³ C. Iaione, *The tragedy of urban roads: saving cities from choking, calling on citizens to combat climate change*, 37 Fordham Urb. L. J. 889 (2010).

⁴ P. Peeters et al., *Research for TRAN Committee - Overtourism: impact and possible policy responses*, European Union (2018).

⁵ J-P. Lozato Giotart, F. Dallari, *Geografia del turismo: dallo spazio consumato allo spazio gestito* (2008).

overtourism should therefore take into consideration several additional aspects, including, for instance, the following.

Firstly, scholars and policy-makers shall consider the intensification of tourism flows and the emulative attitude of the emerging economies, arising from the technological advances, the low-cost flight industry, and the spread of digital booking platforms, thereby making travel accessible and affordable, also considering developments in digital marketing and social media, which have shown to produce a wide-reaching impact and therefore to encourage mass tourism in specific destinations. Secondly, the tendency of tourists to gather in the same popular and iconic global locations is another factor to consider, resulting in overcrowding that disrupts urban life, increases living costs and diminishes residents' quality of life. Thirdly, governance aspects should be addressed – and this is the focus of this research – as inefficient policies and regulations can lead uncontrolled growth and prevent long-term sustainability, giving priority to immediate tourism revenues rather than to local well-being. Lastly, seasonality can also be considered another negative factor in distressing local environments and economies.

The main issues caused by overtourism, in a nutshell, from the perspective adopted in this research, can be summarized essentially in the following three categories.

The first problem is overcrowding, an intrinsic feature of overtourism, which causes irremediable inefficiency in public services and serious difficulties in private economic activities, affecting citizens first and foremost, but also workers and ultimately tourists themselves. In urban centres, overcrowding due to tourism exacerbates existing problems caused by urbanization, with well-known issues such as traffic congestion, while in natural areas where seasonal tourism is concentrated, it creates significant risks for the environment and biodiversity, which is severely endangered.

The second concern this phenomenon raised has to do with the cost of living, and, *in primis*, with housing, leading to the displacement of the most vulnerable segments of the population. The increase in demand for specific tourism goods and services caused increment in prices and reduction in the availability of the latter, making housing emerge as a veritable problem, resulting in the marginalization and social isolation of residents. Social

inequalities multiplied, as a consequence of an unequal access to benefits coming from tourism, and gentrification surfaced, as a broad middle-class reshaping of a place, enwreathing the whole transition from low-level neighbourhoods to upper-class spaces and frequently resulting into a situation in which higher-income groups displace lower-income ones causing, among the many, a decline of social diversity.

Thirdly, overtourism has a negative impact, which also encompasses and summarizes the two situations described above, on the liveability of places – primarily cities, but also, as we shall see, small villages and mountain or seaside tourist destinations – causing depopulation and, in any case, a significant deterioration in the quality of life.

Liveability has recently emerged as an autonomous legal category also in case law, albeit with different nuances due to the varying sensibilities expressed by the constitutional principles of different legal systems. The case *Garib v. The Netherlands*⁶ is a leading example of the emersion of liveability as a proper legal category. On that occasion, the European Court of Human Rights (ECHR) had to rule in the context of freedom of movement and right to choose one's place of residence under Article 2 of Protocol No.4 of the European Convention on Human Rights, since the applicant argued the violation of these two rights after a Dutch municipality denied a housing permit for a specific district in Rotterdam in the light of a national legislation, namely the Inner City Problems Act, which identified areas of the city where statutory requirements have to be satisfied in order to move in, among them all the income one, not satisfied by the applicant.

The refusal and the measure, built to guarantee a fair and balanced allocation of housing, have been recognized as legitimate by the Court, which underlined that the rights guaranteed under Article 2 of Protocol No.4 of the ECHR can be legitimately limited by reasons of public policy pointing at managing social housing distribution. "The restriction here in issue – according to the Chamber – was intended to reverse the decline of impoverished inner-city areas and to improve quality of life generally. There can be no doubt that this is an aim which it is legitimate for legislatures

⁶ European Court of Human Rights, Application n. 43494/09. *Garib v. The Netherlands*. 6 November 2017

and city planners to pursue”; the decision, nonetheless, demonstrates the tension existing between the freedom to determine one’s residential location and national or regional policies on social housing and welfare, raising the question about whether such policies aimed at preserving liveability of urban centres could be indirectly discriminatory for vulnerable populations.

The relevance of such an intersection among overtourism and liveability has furthermore been recognized by the Italian Administrative Court, which last April delivered a judgment suggesting a change in direction of public policies.

Appealed a sentence of an administrative court, the public administration was required, by the appellant, to obey to the sentence imposing the construction of adequate structures on the touristic attraction of the city wall to prevent views on its adjacent property from tourists, order not fully accomplished and creating a situation of conflicting interests among the valorisation of the touristic site and the protection of the neighbour privacy.

The Supreme Authority intervened, highlighting the need to mitigate the impact of tourism on quietness and discretion, finding a reasonable balance. The realization of work of cultural heritage enhancement must consider, under the principle of reasonableness, the impact tourists have on community life, fully keeping in mind the actual global and local economic and socio-cultural context harmed by the phenomenon of overtourism.

For the first time in the history, an Italian Court utilized the English word ‘overtourism’ to refer to that issue so spoken, but at the same time so forgotten. As described by the Authority, this topic does not have mere socio-environmental relevance, but relevant are the legal profiles as well, having serious effects on public administrations and public policies. In front of this “endemic and physiological phenomenon of overtourism”, the necessity for the administration of a new type of interests’ balance comes to light and the conservation of the tourism resource, the citizens and resident businesses safeguard and the macro-impact on the territory gain more relevance now than before. This activity of interests counterbalancing requires the adoption of “new administrative and regulatory instruments that are equally themselves of a new type”⁷

⁷ Consiglio di Stato, sez. IV, 15 aprile 2025, no. 3258.

and that have the potential to guarantee the so familiar right to the city⁸, involving all city inhabitants in the urban creation and transformation, as to advocate democratic control over urban development and to empower inclusivity, creativity and social justice as the pillars of future policies.

If, as stated above, today's overtourism is also a negative product of technological innovation, caused by the proliferation of digital booking facilities such as Airbnb, which are now widespread in relation to a range of additional services, from food delivery to car rental with driver, it is precisely innovation, primarily economic and social, as well as administrative, that can help solve the problems posed by the rush with which technical evolution has overtaken the current legal framework⁹, leading towards new paradigms of liveability.

⁸ H. Lefebvre, *Le droit à la ville* (1968).

⁹ Such is the impact of digital platforms on cities, that a whole new field of "platform urbanism" has recently developed. *Ex multis*, see: S. van der Graaf, P. Ballon, *Navigating platform urbanism*, 142 *Tech. Forecasting & Soc. Change* 364 (2019); F. Caprotti, I.C.C. Chang, S. Joss, *Beyond the smart city: a typology of platform urbanism*, 4 *Urb. Trans.* 4 (2022); P. J. Sabatini-Marques, T. Yigitcanlar, D. Sell, E. Costa, *The Evolution of City-as-a-Platform: Smart Urban Development Governance with Collective Knowledge-Based Platform Urbanism*, 10(1) *Land* 33 (2021); O. Söderström, A.C. Mermet, *When Airbnb Sits in the Control Room: Platform Urbanism as Actually Existing Smart Urbanism in Reykjavík*, 2 *Front. Sustain. Cities* (2020); F. Bignami, N.C. Hanakata, *Platform urbanisation, infrastructures and technopolitics: The turn towards urban citizenship*, 54(1) *J. Eur. St.* 42 (2024); S. Bauriedl, A. Strüver, *Platform Urbanism: Technocapitalist Production of Private and Public Spaces*, 5(4) *Urb. Plan.* 267 (2020); B. B. Arcila, *How law enables platform urbanism: the case of municipal power and platform regulation*, in A. Smets, P. Ballon (eds.), *Handbook of Platform Urbanism* (2025). Closely related to the literature on platform urbanism, albeit focused on other aspects of the legal and sociological analysis of smart cities, *ex multis* can be cited: C. Iaione, *Legal Infrastructure and Urban Networks for Just and Democratic Smart Cities*, 11 *IJPL* 747 (2019); C. Buzzacchi, P. Costa, F. Pizzolato (eds.), *Technopolis* (2019); S. Ranchordás, C. Goanta, *The New City Regulators: Platform and Public Values in Smart and Sharing Cities*, 45 *Gron. Law Res.* (2019); F. Dughiero, A. Michieli, E. Spiller, D. Testa, *Governing with urban big data in the smart city environment: an italian perspective*, 1 *Ius Pub. Net. Rev.* (2021).

2. Methodology

The present article dynamically combines a technical-juridical and economic approach, empirically analysing case law and case studies to evaluate whether and how multistakeholder governance could offer efficient and incisive solutions to the dominating issue of overtourism.

In the first place, a doctrinal legal analysis, grounded on overcrowding and administrative and urban law, has been conducted, followed by a doctrinal economic analysis, investigating tourism and externalities referring to the theories of Pigou and Weitzman to explore governance and common-pool resources as potential responses. Being the identification of legal interpretations, normative limits and applicative criteria of traditional quantitative measures the main objective, a systematic exam of relevant case law and EU and municipal regulations has been then run, enriching this analysis through a selection and a compared description of Italian case studies proposing traditional solutions - e.g. access fees and reservation systems - and others regarding innovative governance - e.g. CLTs and national policies as Smarter Italy. The criteria guiding this selection have been the relevance with regards to the problem of overtourism, the available documentation, the observable impact on liveability and the social inclusion. Tackling the weaknesses of existing policies, a research hypothesis has been developed: a solution rooted in multistakeholder governance capable of mitigating negative externalities of the issue, clarifying the conceptual variables of inclusion, environmental sustainability, social accessibility and administrative efficiency. Thereafter, a critical comparison among outcomes of both traditional policies and co-governance cases allowed the verification of the hypothesis, resorting to qualitative analysis, documental evidence, secondary data and, where available, ex-post projects' assessments. To broaden the research and test the transferability of the model and its institutional limits, a confrontation with instruments and pratiques in the African context has been lastly conducted.

This article intends to contribute to the scientific debate on rules and governance of overtourism, offering moreover an operative contribution for practitioners and policy-makers interested in participatory governance - such as local authorities,

development agencies and planning bodies - to preserve urban liveability.

3. Tourism as an Externality: Rethinking Regulatory Techniques outside Price and Quantity

From a legal perspective, there is an urgent need for new regulatory and administrative instruments, and corresponding practices, to manage the recent challenges arising from the increase in tourism as a consumption good, firstly in the hospitality sector. Equally, it is essential to guarantee that local communities have adequate safeguards against phenomena such as rising central-area prices and the expanding use of residential soil for hospitality purposes to meet short-term overnight demand.

From the policy maker's standpoint, it raises a need to understand the economic mechanisms that serve as the theoretical basis for choices undertaken by governments, public administrations, local authorities, or regulatory bodies of different nature.

In the following chapters, a wide variety of models and theoretical approaches will be discussed and examined. In line with Ostrom's beliefs against overly rigid classifications, it would be ineffective to reduce all interventions to narrow or mutually exclusive categories. Nevertheless, for the sake of clarity, the paper refers to five broad families of policy solutions: (i) economic regulatory models, including externalities, taxes, tariffs, and quotas; (ii) economic-juridical models, such as access limits, contingencies, and administrative measures; (iii) polycentric and participatory governance approaches; (iv) models based on collective and anti-speculative property; and (v) sustainable and distributed tourism models.

3.1. An economic critique of overtourism based on Weitzman's theories

The problem of overtourism, from an economic point of view, can be traced back to the theory of externalities¹⁰: the price is a signal that reflects the informational content of a good at a given

¹⁰ A. Capocchi, C. Vallone, M. Pierotti & A. Amaduzzi, *Overtourism: A Literature Review to Assess Implications and Future Perspectives*. 11 *Sust.* 3303 (2019).

point in time. If this informational content does not consider the hidden and sometimes future costs of a good and its corresponding use, then the price of the good will be lower than its optimal amount. In the case of negative externalities, because of information asymmetries, there is a divergence between social and private returns such that the private optimum results in an excessively high level of production of that good, which must be discouraged from returning to the social optimum.

A simple illustration is provided by pollution. When firms produce CO₂ carrying out their activities, the environmental and health consequences are borne by society and the ecosystem rather than by the producer. The private cost of production is therefore lower than the social cost. Since these external and hidden costs are not incorporated into the market price: the goods are produced and consumed in quantities greater than the socially optimal level.

To “internalize” all the negative effects due to excessive consumption of that good, a so-called Pigouvian tax¹¹ is imposed to compensate for the hidden cost inherent to the nature of the good. The purpose of taxation is to reduce the optimal quantity of the goods produced and purchased, thereby contributing to the goal of reducing the harm caused by the production and consumption of that specific good.

Among the hidden costs of unregulated, frantic tourism, we can once again invoke the definition provided by the European Commission, citing all the costs, monetary and non-monetary, borne by those who habitually reside in areas affected by overtourism. These costs specifically include excessive strain and a higher rate of obsolescence for infrastructure, environmental damage, alienation of residents, and increased costs driven by tourists’ greater spending power relative to residents¹².

Overtourism is, as result, a pressing issue requiring efficient management to preserve urban liveability, turning necessarily the discourse to existing policy approaches, which remain broadly anchored around the Weitzman dichotomy of price *versus* quantity.

The alternative examines a key issue in policy design: whether harmful externalities should be regulated using a price or

¹¹ A.C. Pigou, *The Economics of Welfare* (1920).

¹² P. Peeters et. al., *Research for TRAN Committee - Overtourism: impact and possible policy responses*, cit. at 4, 26.

a quantity remedy, a question that becomes even more central in the context analysed, where costs and benefits are clearly uncertain.

Price remedies, such as taxes, fix price and allow firms to decide the corresponding level of output, whereas quantity remedies such as caps or quotas, operate by setting a cap and let the market determine the price.

Under the theoretical condition of full and perfect information about costs and benefits, quantity and price instruments are interchangeable, as fixing one automatically determines the level of the other. In the real world, policy makers operate under uncertainty, and their goal is to adopt an instrument capable of minimizing the expected loss from policy errors while maximizing the spread between benefits and costs. The Weitzman rule guides the choice, suggesting that price remedies should be used when marginal cost curves are uncertain and steep and marginal benefits are relatively flat. In contrast, quantity instruments are adopted when marginal benefits are not known and steep and marginal costs comparatively flat¹³.

Considering tourism policies, this rule indicated that taxes provide cost predictability, but they may lead to uncertain social, environmental and economic outcomes, while caps guarantee fixed and certain SDG outcomes, but may entail unforeseen costs if conditions shift. The decision thus will depend on which type of error is more dangerous: negative impacts higher than expected, or higher costs?

Jurisdiction that prioritizes fiscal revenue and administrative simplicity prefers, of course, taxes, while those with specific performance targets tend to adopt caps. Despite this divergence, both behaviours share the adoption of a micro-policy approach¹⁴.

Alongside the uncertainty and the difficulties in precisely measuring the costs associated with overtourism, which are a primary reason for the non-adoption of price and quantity-based regulation, redistributive and civic implications that such regulation can entail are not lacking as well. Stiglitz states that a Pigouvian tax leads to production efficiency and optimal market outcomes if the Diamond-Mirrlees conditions are satisfied, and

¹³ M.L. Weitzmann, *Prices vs. Quantities*, 41 Rev. Econ. Stud. 477 (1974).

¹⁴ K.T. Mideksa, M. L. Weitzman, *Prices versus Quantities across Jurisdictions*, 6 JAERE 883 (2019).

these conditions are very stringent and difficult to meet. If these conditions are not met, restrictive taxation could cause a shift in income distribution or surplus, both through direct price effects and through general-equilibrium effects that operate via wages and relative wages¹⁵. An example of a negative externality that works through general equilibrium is the composition of the workforce and its productivity: since tourism is a sector notoriously characterized by low value added, it can slow overall economic growth if not accompanied by an appropriate set of public policies.

Capping access can have immediate effects on the regeneration of ecosystems and on their use, thereby correcting the externality, but it may harm private profits and thus private welfare, without delivering any kind of redistributive benefit. Indeed, quantity reductions can pass through to price increases, which may, for example, be borne by civil society. Paranab Bardhan writes: “however, straightforward privatization of common property resources often has serious distributional consequences, particularly in the form of disenfranchisement of the poor [...]. Private property may not succeed in internalizing all the externalities. Time discount rates of private users of resources may be higher (and therefore resource exploitation rates larger. Since privatization may also be perceived as unfair by the dispossessed [...]. Although privatization has its equity and efficiency problems, nationalization of the local common property resource and its management by a distant bureaucracy is rarely any better, and in some cases actually much worse)¹⁶. Ostrom, Janssen, and Anderies, in the context of combating climate change, caution against the use of simplistic recipes, identifying them as “panacea” solutions—understood as “a blueprint for a single type of governance system” that is applied to all environmental problems¹⁷. A public policy that approaches a complex problem through a binary solution such as caps-and-price measures can be seen as a kind of panacea. Moreover, there is abundant economic empirical evidence

¹⁵ J. E. Stiglitz, *Addressing Climate Change through Price and Non-Price Interventions*, NBER WP No. 25939 (2019).

¹⁶ Bardhan, P., *Symposium on Management of Local Commons*, 7 J. Econ. Persp. 87 (1993).

¹⁷ E. Ostrom, M.A. Janssen & J.M. Anderies, *Going Beyond Panaceas*, 104 Proc. Nat’l Acad. Sci. U.S.A. 15176 (2007).

showing that Weitzman-style regulation often does not produce hoped-for results¹⁸.

We can identify, in the context of the tourism economy, certain types of goods (beaches, nature trails, historic centres) that exhibit the characteristics of non-excludability and rivalry (Ostrom uses the term “subtractability”)¹⁹ and therefore, if not subject to careful regulation, can be prone to problems such as congestion and exploitation, typical of Common Resources Pool²⁰.

Beyond purely economic assessments, Ostrom offers valuable lessons on the failure of centralized, top-down models for managing CRPs, first and foremost the problem of information asymmetry raised by Weitzman and the externalities theorized by Pigou: a top-down decision in the absence of perfect information risks being a non-optimal solution. Moreover, according to Ostrom, top-down operations do not capture the polycentric complexity of communities, overlooking their capacity for self-organization. According to Ostrom, externalities are internalized through shared rules, social sanctions, and community management, grounded in the principle of shared responsibility and the definition of common rights and limits.

The results coming from Ostrom literature and teaching suggest us that we should escape from the simplistic and often binary policy solutions offered by simple models trying to enlarge our vision towards governance tools that help us to reason in terms of polycentric governance intended as system of multiple, overlapping centres of decision-making operating at different scales, coordinating through shared rules, mutual monitoring, and iterative learning, with authority matched to local knowledge and accountability distributed across actors.

3.2. Regulatory instruments through the lens of Weitzman's model

Moving into the bowels of the analysis of traditional regulatory techniques, which are currently being utilized by

¹⁸L.S. Karp & C.P. Traeger, *Prices versus Quantities Reassessed*, CESifo WP No. 7331 (2018).

¹⁹E. Ostrom, *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, 100 *Am. Econ. Rev.* 641 (2010).

²⁰E. Ostrom, *Common-Pool Resources and Institutions: Toward a Revised Theory*, in *Handbook of Agric. Econ.*, Vol. 2, Pt. A (2002).

municipalities as a tool to manage congestion²¹, micro policy measures consist of quantity limits and pricing policies.

Quantity limits, known as quantitative caps or quotas, i.e. policy instruments setting upper limits on the number of tourists allowed to access or stay in a destination within a certain time window, are designed to protect local ecosystems, infrastructures and the community itself from the pressure that overtourism and overcrowding, consequently, bring.

This tool can, anyway, affect the demand or the supply side: the first one will experience a reduction in the number of visitors per unit of time, whereas the second one will instead experience a reduction in the availability of amenities. In this way, the target can be clearly demarcated, but certainly a determination of the carrying capacity of the area in question is required, not an effortless task due to its dependence on physical, user, ecological, social-psychological and supply capacities.

Pricing policies, fiscal tools in the form of taxes or fees based on the causative principle, are directed instead at rectifying market failures resulting from the divergence of private and social costs, at externalizing the costs of tourism, e.g. environmental damage, social inequity and pressure on services.

The model based on the travel cost method (TCM) results in being the most employed for determining the use value or price of a natural resource, with the assumption that the demand for a public resource decrease with increasing travel costs²². Two are the main fiscal measures employed by municipalities: the Tourist Tax and the Access Fee²³.

In Italy, the tourist tax can be imposed by municipalities, provincial capitals, unions of municipalities and cities listed in regional registers of tourist destinations on non-resident guests staying in accommodation facilities. This fee is viewed as a potential Pigouvian tax, a measure capable of internalizing the negative externalities of tourism.

Established by Legislative Decree No. 23/2011, it recognizes the autonomy of municipalities in setting the rate, duration,

²¹ G. Menegus, *Appunti per un governo della città turistica*, 1 It. Pap. fed. 79 (2024).

²² E. Smerald, *Overcrowding of tourism destinations*, in H. Pechlaner et al. (eds.), *Overtourism* (2019).

²³ S. Giorgi, *La fiscalità per la destinazione dei flussi turistici nelle città d'arte: il ruolo delle nuove tecnologie*, 4 Flor. Law Rev. 46 (2023).

exemptions and collection procedures through a municipal regulation, accordingly to Article 119 of the Italian Constitution. The rate is variable; essential is nonetheless the provision of earmarking, often consisting of the use of revenues for the improvement of tourism services, the support for accommodation structures, the maintenance and enhancement of cultural and environmental heritage and public services used by tourists²⁴.

The second measure - the Access Fee, hard regulatory measure based on monetary charge levied on visitors, especially those not staying overnight, for entering into determined high-pressure tourist zones, such as historic city centres or natural sites - is supposed to act as a deterrent to mass tourism, to encourage higher-value tourism and, most important, to generate public revenue for infrastructure maintenance, environmental protection and crowd management.

Despite the potential these traditional regulatory tools have in preserving the quality of life for residents and in fostering infrastructures relief by reducing consequences of overcrowding, rare is evidence of full effectiveness in terms of improvement of liveability.

Rather than preventive, these systems are qualified as reactive; they often serve to cure the symptoms of overtourism, instead of addressing the causes of the phenomenon, listing, among them, the unsustainable infrastructure planning.

Affecting disproportionately certain groups, the principle of equal access highly risks being violated, especially when permits or access rights are distributed in a way favouring established commercial operators over local workers and residents. Accordingly, the freedom of movement, potentially limited by inappropriate fees introduced to condition access²⁵.

Standalone quantitative limits, if not embedded in wider sustainability plans, can be revealed to be ineffective and unintended legal and social consequences are just around the corner.

²⁴ C. Ferrario, *L'imposta di soggiorno: vincolo od opportunità per il settore turistico?*, 2 Dir. Aff. 176 (2021).

²⁵ G. Menegus, *Appunti per un governo della città turistica*, cit. at 21.

4. Traditional approaches and regulatory attempts in Italy: case studies and case law

The rising phenomenon of overtourism in Italy has led to the adoption of regulatory remedies both at national and local level with the overall aim to mitigate its negative impacts on historical cities, nature and local households. These measures have triggered legal and administrative challenges that must be faced by local authorities. The following section examines some of the most relevant case studies together with their respective judicial remedies in the Italian context, highlighting how municipalities have attempted to preserve liveability of the affected areas.

4.1. Cities and coastlines with limited access

In the Italian peninsula, Venice represents the first significant example of congestion management through a restrictive access policy applied to an entire urban centre. The city, which has been severely struggling with the liveability of its historic centre, introduced an access contribution fee, pursuant to national law²⁶, on day-trippers who are not paying the tourist accommodation tax. Residents, workers, students and other defined categories are exempted from payment.

Within this framework, the amount ranges are modulated by the predicted daily tourist flow, and the city council has attributed the power to adjust the access fee²⁷ on high-intensity days, to set thresholds and caps based on real-time data and to establish exemption on periods or different rates for certain islands. All visitors, exempted included, are required to register online and these collected data are utilized to inform the daily application and fee levels, acting as a real-time crowd management tool.

Despite the municipality of Venice's aim to build an innovative strategy to reduce pressure on the overcrowded historic centre, several legal and operational criticisms have emerged. Firstly, by conditioning the access to the city, the fee risks to conflict

²⁶ Law 30 December 2018, no. 145 "Bilancio di previsione dello Stato per l'anno finanziario 2019 e bilancio pluriennale per il triennio 2019-2021".

²⁷ Resolution of the City Council of the Municipality of Venice 12 September 2023, no. 51 "Regolamento per l'istituzione e la disciplina del contributo di accesso, con o senza vettore, alla Città Antica del Comune di Venezia e alle altre isole minori della laguna, ai sensi e per gli effetti dell'art. 1 comma 1129 della legge n. 145 del 30/12/2018".

with Article 16 of the Italian Constitution, which admits limitations to the freedom of movement exclusively by law for health or security purposes. In addition, it increases privacy and data protection risks as well, as the mandatory pre-registration and the data collection from individuals who are not liable to pay the fee appear to exceed what is necessary, ending up being disproportionate and raising concerns under the principle of data minimization stated by Article 5 and 6 of the GDPR. Lastly, equity and symbolism are significant issues, forasmuch the fee could be perceived discriminatory based on income and, transforming Venice into a privatized or commodified space, it could clash with democratic values of free access to public goods²⁸.

Another example of regulating tourist flows by limiting access to a public place is that of limited access to beaches, exemplified by the northern coast of Sardinia. This set of measures acted as a reaction to the stress and risks to nature conservation to which these places are subjected, as well as for the same reasons of liveability that have led to similar measures in urban centres.

In this context, a variety of solutions have been adopted, all of which involve restricting access: these range from booking a spot on the beach via an app or website, sometimes combined with an access fee²⁹, up to more complex real-time tourist flow monitoring systems.

Among the latter, it should be mentioned the so called “Baunei model”, i.e. the digital system for managing tourist flows by sea to beaches experimented in Baunei (NU) starting from summer 2025³⁰. It was developed by the Sassari-based tech company Eager, which produced an algorithm for the “dynamic allocation of landing quotas”³¹. From 2025, therefore, access by the sea at Cala dei Gabbiani, Cala Mariolu, Cala Biriala, Cala Sisine and Cala Luna will be regulated not only by a booking app, as was already in the previous years, but also by an algorithm that aims at ensuring that the restriction is strictly observed throughout the day. Making use of Starlink's satellite connection, therefore, this digital

²⁸ G. Menegus, *Appunti per un governo della città turistica*, cit. at 21.

²⁹ This is the case, for instance, of the Cannigione swimming pools in Arzachena, La Rena Bianca in Santa Teresa di Gallura, and La Pelosa in Stintino.

³⁰ P. Ardovino, *Stop all'assalto dei turisti alle cale: a Baunei l'algoritmo decide chi entra*, *La Nuova Sardegna* (08.02.2025).

³¹ *Ibidem*, unauthorized translation.

tool has been integrated into the monitoring system, enabling real-time verification of the amount of people getting on and off the boats, with an AI assistant providing real-time assistance to both operators and tourists.

All these cases, motivated as much by a desire to protect the territory as by a desire to make the place realistically accessible to citizens and workers alike or, in the case of beaches, to tourists, demonstrate a series of significant critical issues.

The case regarding Sardinian beaches, while undoubtedly solving the problem of functional efficiency, allowing for better service to users and, above all, preserving natural heritage, presents itself several problems. Throughout the summer season, for example, beaches become essentially inaccessible, or at least have very limited access, even for residents who are prevented from benefiting from a significant, if not essential, part of their territory.

From another point of view, it becomes extremely difficult for tourists themselves to visit these places due to the obstacles that stand in their way: beach reservations, for example, are often limited to one person per device, making it very difficult for families to find a spot. In this way, in the name of tourism that is undoubtedly more sustainable from an environmental point of view, social relations and, to some extent, related economic activities are significantly sacrificed, although their quality does increase. A significant balancing is therefore conducted between environmental protection and economic and social demands, in addition to a change of direction in the approach to tourism, favouring higher quality but lower quantity services. In this regard, it is not possible to speak of balancing, even though it may give rise to conflicting interests.

4.2. Different approaches in municipal regulations on short-term rentals and case law

Overtourism particularly affects the most attractive urban areas even indirectly, for example due to the advent of the digital economy, characterized by services offered by digital platforms that tend to evade taxation systems and compromise the capacity of local authorities to manage tourist flows³².

³² See the literature cited in note no. 9.

This phenomenon is becoming so serious and evident these days that it has been discussed in terms of “airification of cities”³³, meaning the transformation of a huge number of residential properties from long-term housing to short-term tourist rentals³⁴. Overtourism and the aerification of cities, especially in the historic centres of the most attractive sites and in places subject to seasonal tourism, produce negative impacts that go well beyond the scale of the issue itself: from the inefficiency of essential services, such as public transport, to the replacement of local businesses with shops intended exclusively for non-residents, or the dramatic increase in house prices and rents. These consequences, in turn, make it impossible for the most vulnerable communities to continue living in areas affected by overtourism, leading to their displacement towards the suburbs, and finally also push all other citizens to emigrate elsewhere, due to the sudden deterioration in the quality of life for residents.

This scenario stands in clear contrast to the very existence of a “right to the city”³⁵, implying a collective management of the city by the inhabitants: on the contrary, the city is increasingly treated as a mere asset, neglecting that assets are not habitable.

The attempts to regulate these phenomena involve multi-level competences belonging to national, regional and local authorities, so that most of the regulatory attempts concerning short-term rentals gave rise to judicial proceedings, starting with the first national law aimed at recovering taxation from short-term rental platforms - so-called “Airbnb Law”³⁶ - which gave rise to proceedings that were brought before the Council of State and the CJEU³⁷. Beyond taxation concerns, the first national provision

³³ S. Picascia, A. Romano & M. Teobaldi, *The airification of cities: making sense of the impact of peer to peer short term letting on urban functions and economy*, Proc. of the Annual Congress of the Association of European Schools of Planning (2017); M. E. Bucalo, *I servizi delle piattaforme online fra giurisprudenza sovranazionale e interna e necessità di regolazione dell'economia collaborativa. Riflessioni a partire dal caso Airbnb*, 22 *Federalismi.it* 66 (2020).

³⁴ M. E. Bucalo, *I servizi delle piattaforme online fra giurisprudenza sovranazionale e interna e necessità di regolazione dell'economia collaborativa. Riflessioni a partire dal caso Airbnb*, cit. at 33.

³⁵ H. Lefebvre, *Droit a la ville*, cit. at 8.

³⁶ Art. 4 of Decree-Law no. 50/2017.

³⁷ According to Airbnb's defensive argument, the platform shouldn't comply with such provisions, because of the classification of its service as an

directly aimed at containing overtourism has been the requirement for a National Identification Code (CIN), provided for by Decree-Law no. 145/2023. Apart from this specific provision, however, both national and, above all, regional authorities, despite their significant regulatory powers, have been largely absent in addressing the negative impacts of short-term rentals, despite some recent efforts³⁸, such as the participatory process involving all the interested parties to draft a regional law on short-term rentals taking place in Emilia-Romagna³⁹.

The first attempts of municipal regulation, built upon regional legislation and depending on that, show diverging approaches, which can essentially be classified into two categories: planning-centred and tourism-centred. An example of the first gender, for instance, are the measures taken by the municipality of Bologna, that amended the General Urban Plan (PUG) and the Building Regulation, relying on the municipal authority over urban planning to provide some regulations governing the size and healthiness of flats and their administrative classification. This regulatory choice was approved by the regional administrative court which, also based on previous constitutional case law, in judgment TAR Emilia-Romagna no. 308/2025 upheld the regulatory provisions.

“information society service” under Directive 2000/31/EC and the Uber Test developed by the CJEU (C-390/18). Airbnb appealed to the Regional Administrative Tribunal of Lazio and then to the Council of State, which filed a preliminary reference to the CJEU (C-83/21; Cons. di Stato no. 9188/2023), questioning whether the law violated the EU principle of free movement of services under art. 56 TFEU: the Court confirmed the law’s validity, declaring proportionality between the contested law provisions and the State’s duty to fight tax evasion (F. Pizzolato, D. Testa, *Libertà economiche ed autonomia locale: strumenti e lacune della tutela giurisdizionale*, in M. Bertolissi, C. Pagliarin (eds.), *Il destino delle risorse pubbliche. Reperimento gestione giurisdizione* (2023).

³⁸ D. Tumminelli, *Le “locazioni brevi” e il (mancato) ruolo svolto da Regioni ed enti locali nella materia del “governo del territorio”*, 1 *Istituzioni del Federalismo* 247 (2023); F. Fracchia, P. Pantalone, *Salvaguardia delle identità locali, corretto uso del territorio ed esigenze del mercato: il caso delle locazioni brevi ai tempi della sharing economy*, 1 *Consulta Online* 115 (2022).

³⁹ For further information, see: <https://www.regione.emilia-romagna.it/notizie/2025/aprile/casa-via-al-percorso-verso-una-legge-regionale-per-disciplinare-gli-affitti-brevi-a-uso-turistico-il-primotavolo-entromaggio> (accessed 28 November 2025).

Conversely, an example of a more tourism-focused approach to regulating short-term rentals occurred in Lombardy, in Sirmione, where the municipal regulation disciplining BnBs on the basis of regional tourism legislation was first upheld by the TAR of Brescia and then rejected by the decision of Council of State no. 2928/2025, stating that non-commercial tourist rentals fall outside the scope of local authorities' powers, according to Lombardy's regional law.

The City of Florence, furthermore, adopted an intermediate approach: on one side, it amended the General Urban Plan – which was the matter of a ruling by TAR Toscana no. 858/2024, decided on procedural grounds – according to its urban planning authority, addressing the issue as a potential harm to the preservation of the city centre as a UNESCO World Heritage Site, and on the other, on 31 May 2025, it approved the Regulations for short-term rentals, which make extensive reference to regional legislation and therefore, at present, have not been subject to the same judicial complaints as in the case of Sirmione.

5. Governance as the third option to escape the Weitzman dichotomy

The management of overtourism to preserve urban liveability, as demonstrated by the cases analysed above, requires a stronger action, grounded in a policy-making process which is urged to move away from the traditional reliance on the quantitative instruments of price and quotas, to shift the attention towards governance as an instrument for public policy, relying on new, less hierarchical and more relational models.

Historically, classic mechanisms like taxes and command-and-control regulations ended up being associated with government failures, demonstrating a scarce and insufficient capability to govern the increasingly complex contemporary society and several are the limitations and failures empirically recognized.

Firstly, as mentioned before, the traditional approach increasingly experienced challenges regarding the State control and the scarce ability to govern differentiated societies, challenges which resulted in evasion by authors, who found a way to escape

the pressure of these policy instruments in creating their own rules⁴⁰.

Secondly, these traditional legislative and regulatory instruments have been often identified as being of the command-and-control type, which is generally perceived as cumbersome and abstract and criticized for its tendency to reduce accountability. In addition, the rigidity that characterizes this set of tools and its universality often leads to impasse. Today, societies in most of the world seek more and more for permanent normative autonomy, which relies on participatory and flexible modes of regulation, on agreements as incentive forms presupposing the State retreating from its traditional functions of constraint and becoming instead involved in contractual exchange as promoter of innovative solutions, making a strategic use of procurement as a new, contemporary way to address public policy⁴¹.

The recognition of these criticisms, which becomes even more alarming in contexts characterized by unsustainable tourism and deteriorated conditions of life, is the action accompanying the shift toward a new governance paradigm, including a search for new or innovative policy instruments capable of promoting less interventionists, but more participatory form of public regulation.

Through this research, therefore, we will attempt to identify governance strategies capable of transcending traditional paradigms to tackle overtourism and determine whether these strategies are more effective than traditional ones, referring to relevant Italian case studies, as well as preliminary exploration of economic and legal literature.

Governance, according to this hypothesis, becomes thence the third option, i.e. the new possible paradigm for the mitigation of the negative externalities of overcrowding and for the construction of a method focused on infrastructure, urban planning and resident and stakeholder engagement.

Utilizing governance as an instrument means prioritizing devices that organize political relations in the name of communication and consultation, renewing the foundations of

⁴⁰ P. Le Galès, *Policy instruments and governance*, in M. Bevir (ed.), *The SAGE Handbook of Governance* (2010).

⁴¹ P. Lascoumes, P. Le Galès, *Introduction: Understanding public policy through its instruments – From the nature of instruments to the sociology of public policy instrumentation*, 20 *Governance: Int. J. Pol. Admin. and Inst.* (2007).

legitimacy, rebuilding a strong relationship between the governing and the governed.

Multiple are the forms governance can assume: one of them is nonetheless the concept the whole new framework grounds on, that is the right to the co-city, a rights-based urban paradigm which reimagines the city as a commons⁴², guaranteeing citizens the right to participate in city governance, the right to pooling and the right to co-produce and co-manage public spaces⁴³.

Proposing an exemplification, resources re-appropriation for the inclusion of vulnerable communities is one of the shades in which the new paradigm can introduce itself and it contributes to the extension of benefits to the entire local community by transforming neglected urban assets - such as vacant lots or deteriorating and deteriorated public spaces - into urban commons through collective action, governance and stewardship. The co-management of urban green spaces emerged as representative case⁴⁴, case based on the re-appropriation of space and use value, traditionally market-driven and afterwards attributed to the community, strategically addressing displacement, since it claims certain public spaces as shared common resources by using vacant public property, and aligning with environmental justice principles, while addressing pre-existing economic, social and political inequalities. This collaborative management requires however specific mechanisms capable to engage and empower marginalized communities in the governance, among them social pooling serves as an example, accompanied by the presence of the State in its form of Enabling State.

At this point, considered the urban decline, and in particular the "tragedy of commons"⁴⁵ caused by overtourism, the governance instruments capable to have a veritable impact on the liveability result to be the ones characterized by a strong community participation, by a veritable inclusion of local groups, by efficient innovation.

⁴² S. R. Foster et C. Iaione, *The City as a Commons*, 34 YLPR 281 (2016); S. R. Foster et C. Iaione, *Co-cities: Innovative transitions toward just and self-sustaining communities* (2025).

⁴³ C. Iaione, *The right to the Co-City*, 9 IJPL 80 (2017).

⁴⁴ S. R. Foster et C. Iaione, *Co-cities: Innovative transitions toward just and self-sustaining communities*, cit. at 42, 69.

⁴⁵ G. Hardin, *The Tragedy of the Commons*, 162 Science 1243 (1968).

Community Land Trust (CLT) and public policies based on a multi-stakeholder governance pointed at enhancing public-private-community partnerships⁴⁶ and innovation partnerships act as a means of valorisation of cultural heritage and enhancement of economic and touristic areas of historic and artistic relevance in this framework, solidly fulfilling the right to inhabit and the right to the city.

Urban development aligns with justice and equity goals by virtue of this redistributive legal structure and administrative power and countervailing power find themselves united in achieving this mission.

Born in the Gargantua model⁴⁷, where a single government established and manages city services, building hence a hierarchical or bureaucratic structure, characterized by a scarce efficiency and responsiveness to local issues, the administrative power comes in a qualified version in this model, as a flexible and discretionary power capable to go beyond the conventional administrative law tools, to build the so-called Enabling State, an institutional platform where to convene and connect the different actors of the city. Contextualized into the proposed framework, it has the duty to activate city users as active participants of the co-governance of the city, it produces the utility needed, consisting of the latter of producing policies capable of preventing overtourism. Another power comes, however, in action, which is the countervailing power, consisting of the capacity of structurally disadvantaged groups to collectively exercise influence over both the State and the private sector actors, players which make critical ordering decisions⁴⁸. It serves hence in actively counteracting existing power disparities, in building mechanisms and processes aimed at challenging, balancing and redistributing concentrations of power within vulnerable urban environments, it aims at transforming territory governance into its more inclusive version.

⁴⁶ C. Iaione, *Urban sustainable development and innovation partnerships*, 14 IJPL 521 (2022); C. Iaione, *Partenariato e finanza di progetto di comunità*, 6 Riv. Giur. Edil. 433 (2024).

⁴⁷ R. Wood, *The New Metropolis: Green Belts, Grass Roots or Gargantua*, 52 APSR 108 (1958).

⁴⁸ A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, 18 HLPR 279 (2024).

It is the balance between these two sets of powers that elevates liveability as a priority.

6. Innovative Public Policies based on shared and collaborative governance models

Expressed in Paragraph 4 the necessity to draw upon governance instruments for the management of overtourism in the light of urban regeneration and social exclusion, it becomes hereby crucial to explore in depth the set of innovative policy tools and institutional arrangements capable of operationalizing these principles within real contexts.

Building on the call for participatory, polycentric governance mechanisms previously outlined, the following paragraphs explore how collaborative governance models can concretely transform into effective regulatory strategies, giving particular attention to the Community Land Trust - as an instrument pointed at regenerating urban property and mitigating the exclusionary effects of overtourism - as well as to emerging public innovation programs, such as Smarter Italy, mobilizing public procurement as a means of inclusive territorial management.

6.1. New governance paradigms for housing and neighbourhood facilities: the Community Land Trust

Leaving the discussion on how the CLT can help with the housing crisis to another place, a premise on its structure is required.

Legal and normative instrument grounded on a nonprofit, community-governed organization, capable of enacting a fully participatory governance, its operation mode stands on the acquisition and holding of land in perpetuity for the benefit of a local community and the subsequent lease of the land to residents or cooperatives, typically through a 99-year renewable lease⁴⁹.

The CLT's governance property model, committing a set of goods to an entity and building an autonomous earmarked asset, avoids the incurrence of anti-democratic and closed governance models, it guarantees the permanent affordability of housing, while

⁴⁹ A. Vercellone, *Il Community Land Trust: Autonomia privata, conformazione della proprietà, distribuzione della rendita urbana* (2020).

simultaneously embodying the idea of an organization working into a community and the whole community having a certain control over funds governance.

This institution, creating public-private synergies and ensuring flexibility and justiciability, represents a transformative model to reclaim urban spaces as a commons, to embed participation, equity and sustainability, to realize social justice against the criticisms generated by overcrowding, leaving behind and preventing eviction, displacement and gentrification⁵⁰. It is a model of anti-displacement and community well-being, as it emerges by the Dudley Street CLT, referring nonetheless to a common law version of the model, and by the very first European experimentation: the CLT Bruxelles.

After the cost of living doubled between 2000 and 2010, Brussels-Capital Regional Government decided to support the establishment of the CLT of Brussels (CLTB) in 2012, aimed at offering affordable housing for low- and medium-income households in the Region. Given its foundation on the traditional four elements of collective land ownership, detachment of land and building ownership, anti-speculative mechanisms and collective participatory governance, it provides an alternative to traditional ownership models.

Diving deeper into the specific functioning of this Belgian model, the acquisition of housing is based on income eligibility criteria, and, after a selection process, successful applicants will purchase the house at a price lower than the market value, and they will sign a ground lease with the CLTB for the land beneath their home.

The governance, based on a tripartite board in which each group has equal voting rights, ensures residents empowerment and accountability to the community⁵¹.

Despite being the project mostly subsidized by the Brussels-Capital Region and EU urban innovation programs, the government subsidized, in addition, two pilot projects *Arc-en-Ciel* and *Le Nid*, and the conclusion of the project *L'Escluse*, by reason of

⁵⁰ A. Vercellone, *Urban commons e modelli di governo: Il Community Land Trust*, in A. Quarta et M. Spanò (eds.), *Beni Comuni 2.0 - Contro-egemonia e nuove istituzioni* (2016).

⁵¹ C. Simonneau, *Le Community Land Trust aux États-Unis, au Kenya et en Belgique. Canaux de circulation d'un modèle alternatif et jeu d'intertextualité*, 6 RIURBA (2018).

the strong agreement among citizens, local associations and government, creating the very first European inhabited CLT, comprehending apartments at low energy impact, in line with the ecologist policy of the Brussels-Capital Region.

This is a concrete demonstration of the different forms a CLT can assume, not only urban centres regeneration or construction of buildings, but also maintaining residents in their original neighbourhood⁵².

Understood, through this application case, the general conformation of the institution as a polycentric experience capable to enhance the governance of traditional public policies, it should be hereby contextualized in the Italian system, affirming that several legal instruments can serve this form formally lacking in the proper Italian legal framework, although only one, among the latter, is the most suitable to the mission: the Participatory Foundation.

Meaningful evolution, confirmed and influenced by the impact of special legislation on private autonomy, it overcame the traditional model of foundation, admitting the law a simple “possible and lawful”⁵³ purpose and then introducing the same the concept of special foundations in the Third Sector Legislation. The institution emerged as a foundation-organization, a foundation enriched by organs borrowed from associative and corporate models, e.g. assemblies or steering bodies, concretized thus as an association which has to potential to become a place for individuals to express their personality, although remaining teleologically bound to its indispensable, pre-defined purpose⁵⁴.

For what concerns the suitability of the model to be a hypothetical transposition of the CLT model in Italy, allowing a plurality of founders and participants, all of them contributing to the entity’s purpose, it perfectly embraces the plurality of personalities participating in the CLT⁵⁵. This hybrid organizational

⁵² C. Iaione, M. Bernardi et E. De Nictolis, *La casa per tutti: Modelli di gestione innovativa e sostenibile per l’adequate housing* (2019).

⁵³ Decree of the President of the Republic 10 February 2000, no. 361 “Regolamento recante norme per la semplificazione dei procedimenti di riconoscimento di persone giuridiche private e di approvazione delle modifiche dell’atto costitutivo e dello statuto (n. 17 dell’allegato 1 della legge 15 marzo 1997, n. 59)”.

⁵⁴ D. Giurato, *Per una definizione attuale di fondazione*, 4 Jus Civ. 859 (2023).

⁵⁵ G. Sicchero, *Le fondazioni di partecipazione* (2024).

model, synthesizing elements characteristic of both traditional foundations and associations, is an evolution in social organization, it is the democratic and inclusive scheme of proprietary cooperativism capable to realize stable partnerships⁵⁶ among the "public as a person", i.e., the State apparatus, and the "public as a subject", i.e. the State community, offering a dignified condition of life in congested urban centres.

In the light of the possibility to implant the CLT model in a context as the Italian one, significant is the case of CLT Porta Palazzo, in the process of experimentation in Turin.

This initiative, driven by the *Fondazione di Comunità di Porta Palazzo* and announced in 2024, was launched with the aim of revitalizing the Aurora neighbourhood in the northern part of Turin, an area with significant urban, social and economic challenges.

Acting from below, the foundation's mission is to influence urban transformations while, contextually, preventing gentrification and displacement of vulnerable populations, reason justifying the decision to evaluate applicant families according to criteria based on economic vulnerability, social inclusion potential and generational and ethnic diversity.

Financed firstly by *Compagnia di San Paolo* Foundation, which provided the initial capital and supports the operation costs of *Terreno Comune*, the foundation managing the whole model, it occurred then to public institution contribution and to the role future residents will play, who are expected to contribute moderate financial input to access to housing and who will be involved in community co-financing initiatives⁵⁷.

The structure grounds on the same four elements mentioned while discussing the CLTB case, it differs however from a legal point of view. CLT Porta Palazzo is established as a ETS foundation

⁵⁶ C. Iaione, *Urban sustainable development and innovation partnerships*, cit at 46; C. Iaione, *Participatory governance in EU cities and its potential implementation in the cultural sector: the urban science and innovation partnerships as an enabling tool*, 1 Riv. Giur. Edil. 37 (2023).

⁵⁷ *Community Land Trust: corso Giulio Cesare 34*, Fondazione Porta Palazzo (04.22.2024). See: https://www.fondazioneportapalazzo.org/wp-content/uploads/2025/04/Presentazione-CLT-Torino_-2025.pdf (accessed 28 November 2025).

under Italian Third Sector regulation⁵⁸ and this structure ensures the non-profit status, since the revenues must be reinvested into the trust's activities.

Guiding a tripartite board the decision-making processes, CLT Porta Palazzo is a pioneering Italian experiment of inclusive territory governance, it is a system attempting to foster democratic control and shared management of decisions in urban regeneration and liveability preservation.

6.2. Innovative and collaborative ways to manage tourism in Italian villages and coastal areas: Smarter Italy and other case studies

Despite the CLT suitability to serve as a response mechanism when tourism reaches damaging levels, introducing measures to manage urban pressures in a sustainable and community-controlled way, other instruments are thus required to be adopted by PAs to obtain a systemic response to the phenomenon, and finally to realize an even more inclusive governance of the territory.

Another perspective worth considering is hence one that proposes promoting slow, widespread and sustainable tourism as a policy response to overtourism. This result can also be achieved through the strategic use of public procurement, and a particularly interesting case study in the Italian context is that offered by Smarter Italy⁵⁹. This is a national innovation programme promoted by the Department for Digital Transformation and the Agency for Digital Italy (AgID)⁶⁰, which adopts the innovation procurement as a strategic tool to address local-scale challenges – including those related to tourism pressure – by transforming municipalities into “living labs” where public administrations, as contracting authorities, do not ask the market for a product or service, but define societal needs that require to be met, and the contractors - companies, start-ups, research centres - experiment through an

⁵⁸ A. Couvert, *Community Land Trust: Terreno Comune ETS, una pratica di investimento solidale e autogestito*, Labsus (16.07.2024).

⁵⁹ F. Dughiero, A. Michieli, E. Spiller, D. Testa, *Governing with urban big data in the smart city environment: an Italian perspective*, cit. at 9, 7.

⁶⁰ Smarter Italy was born with the Decree of the Ministry of Economic Development January 31, 2019, made operational with the agreement between MISE and AgID, and joined by the Ministry of University and Research and the Minister for Technological Innovation and Digitization in 2020.

essential R&I effort aimed at producing innovative and replicable solutions. This approach privileges a collaborative public-private-community governance model, based on multi-stage procedures - such as pre-commercial procurement or innovation partnerships⁶¹, - where the public administration participates from the outset in the co-design of the service or product to be created that simultaneously address mobility, cultural heritage, environmental management, and citizen services, while steering public demand toward more sustainable tourism practices.

Within the “*Borghi del futuro*” (“Villages of the Future”) initiative – involving, among others, Otranto, Pantelleria, and Sestri Levante – calls for tenders promoted under Smarter Italy have supported projects aimed at mitigating overtourism through digital platforms for on-demand cultural experiences, systems for monitoring and managing tourist flows, routes promoting slow mobility and season extension, and engagement tools for residents and local operators.

In practice, Otranto has implemented projects integrating digital itineraries and smart mobility platforms across the Salento area, encouraging modal diversification and inland tourism to relieve coastal pressure; Pantelleria, as an insular municipality, has developed solutions combining environmental preservation with experiential tourism, including spatial regeneration and digital tools to better distribute tourist demand; Sestri Levante has leveraged the programme to promote sustainable “outdoor” tourism, integrating environmental quality (Blue Flag initiatives) with diffuse, off-season experiential offers.

From a theoretical and policy standpoint, Smarter Italy illustrates how the innovation partnership can be used not only to introduce new technologies, but also to reorient local governance and incentives toward distributive and resilient tourism models⁶²

⁶¹ B. Lazarotto, P. De Hert, *Public-Private Partnerships in smart cities and the privatization of citizenship*, in A. Smets, P. Ballon (eds.), *Handbook of Platform Urbanism* (2025); C. Iaione, *Urban sustainable development and innovation partnerships*, cit. at 46; C. Iaione, *Participatory governance in EU cities and its potential implementation in the cultural sector: the urban science and innovation partnerships as an enabling tool*, cit. at 56.

⁶² C. Iaione, *Participatory governance in EU cities and its potential implementation in the cultural sector: the urban science and innovation partnerships as an enabling tool*, cit. at 56.

– that is, preventive and systemic responses to overtourism based on data, participation, and public procurement as a transformative lever.

Even regarding maritime tourism management, there are numerous cases that buck the trend described above, particularly in terms of the decision to rely on governance solutions shared with citizens and users and tailored to the specific characteristics of the area⁶³. In Sardinia itself, which, as we have seen, is an area particularly affected by overtourism in maritime tourism destinations and therefore subject to measures restricting access to beaches, a series of innovative solutions are currently being trialled in a number of areas, aimed at extending the tourist season (deseasonalisation), promoting slow and sustainable tourism, and redeveloping less attractive areas with a view to distributing tourists more evenly across coastal areas, with economic and social benefits, while also preserving and enhancing the environmental and cultural riches of the territories.

In contrast to traditional solutions, therefore, we can mention a series of virtuous practices that are gradually characterizing all Italian coastlines. In Carloforte, Sardinia, the Tunèa project aims to restore the link between the town and the disused tuna fishery, promoting a maritime heritage that is not limited to the beach but transforms the regenerated site into a cultural hub, in which the inhabitants have been involved from the outset⁶⁴. Similar projects, usually public or community initiatives, can be seen, for example, in Procida, a small island whose habitability is increasingly challenged by logistical, environmental and socio-economic issues: in 2022, it was declared the Italian Capital of Culture thanks to a cultural enhancement system extended throughout the entire calendar year, which is based, from the planning stage onwards, on a process of co-creation with residents and is designed to respond

⁶³ On the fragility and recent transformations of the Italian coastline, see for example: A. Giuzio, *La linea fragile. Uno sguardo ecologista alle coste italiane* (2002). M. Zanchini, M. Manigrasso, *Vista mare. La trasformazione dei paesaggi costieri italiani* (2017).

⁶⁴ M. P. Usai, *Out of season. The Tunèa project and the re-connection between the community of Carloforte (Sardinia) and the decommissioned trap*, 2 *Seascape* 58 (2023).

to their needs, as well as to the natural characteristics of the island⁶⁵. The same approach, based on the need to promote green and seasonally adjusted tourism, ultimately characterises a series of initiatives involving the Adriatic beaches between Veneto, Emilia-Romagna and Marche⁶⁶.

In a somewhat similar way, but in the absence of virtuous public governance strategies, there are also examples of reappropriation of public space and reconnection between cities and the sea, such as those currently underway on the coast of Naples, from which the coastline was effectively separated due to past urban planning decisions. In this case, the enhancement work is based on spontaneous initiatives from civil society, through informal civic uses, which respond to the need to make a neglected part of the territory usable again⁶⁷.

Finally, among these efforts to rethink Italy's coastlines and their tourist function, with a view to promoting free and sustainable use, it is worth mentioning a case in which collaboration between civic forces, public administration and, in some cases, the private social sector, extends more explicitly to knowledge institutions: this is the DISCOV.ER project, which, thanks to PR-FESR Emilia-Romagna 2021-2027 funding, involves stakeholders and citizens in the creation of a digital twin that can be used both by experts for monitoring and predicting climate change and biodiversity, and by the public, who will be able to access the data in an immersive and engaging way, increasing the influx of tourists interested in ecotourism⁶⁸.

The case studies above effectively demonstrate that there are solutions to overtourism that go beyond a purely quantitative approach, which limits tourism activities considered harmful. These cases undoubtedly have significant points in common, first

⁶⁵ N. Martinelli, F. Montalto, *Territorial heritage as a driver for redemption and seasonal adjustment processes. The case of Procida, from small island to Italian capital of culture 2022*, 2 *Seascape* 38 (2023).

⁶⁶ R. Baiocco, M. D'Ambros, *Climate change, green tourism and deseasonalisation. The Italian adriatic beaches ecological project*, 2 *Seascape* 28 (2023).

⁶⁷ K. Pica, V. R. Zucca, *Città ribelli. Esperienze lungo la costa napoletana, tra fratture e riappropriazioni*, in M. Ranzato, B. Badiani (eds.), *Il progetto di urbanistica tra conflitto e integrazione* (2023).

⁶⁸ C. Prandi, *DISCOV.ER: Digital Twin e Citizen Science per la Salvaguardia del Delta del Po*, in Aa. Vv., *Nuovi orizzonti per la citizen science in Italia. Book of Abstracts* (2025).

and foremost being a consideration of public spaces and, ultimately, of cities themselves as commons⁶⁹. The natural consequence of this approach, which is also cultural, is the management of the problem in terms of governance and, therefore, first and foremost, the direct involvement of communities affected by the concentration of tourists, the resulting inefficiencies and the risk to their territory.

This has led, for example, to an increasingly widespread trend towards the recovery of areas with a tourist vocation that were previously neglected or even subject to urban development projects that led to their gradual separation from inhabited areas and substantial abandonment, while at the same time, in many places, attempts are being made to co-manage tourist flows in order to deseasonalise them and make them more compatible with the socio-economic function of tourism, capable of having a positive impact on the community and not endangering, but rather enhancing the natural and cultural value of the territory.

6.3. Governing Overtourism in Africa, Land Tools, Community Tenure and Coastal Management

Tourism is expanding rapidly also in many African countries, so that a brief comparison could be useful for the purpose of this research. This growth in the number and destinations of visitors clearly contributes to job creation and revenue generation, but also creates increasing strains on local environments, infrastructures, and daily life.

Research from Southern and Eastern Africa demonstrates that when tourism development outpaces a destinations receptive ability, that is, the capability of its societal, environmental, and structural systems to accommodate tourists without degradation, negative effects emerge, such as road congestion, pressure on housing and public services, and competition over land and resources⁷⁰. When such demands exceed this local capability limit, the situation evolves into “over-tourism”, that also the aforementioned African literature is beginning to address as such.

⁶⁹ S. Foster, C. Iaione, *City as a commons*, cit. 42, 23.

⁷⁰ R. Musavengane, L. Leonard, *Conservation, Land Conflicts and Sustainable Tourism in Southern Africa: Contemporary Issues and Approaches* (2022).

Within this scope, that limit has been defined as “limits of acceptable change” (LAC). The LAC structure delineates how much modification people and ecosystems can endure before the standard of living, and the visitor experience begins to diminish⁷¹.

Employing LAC transforms a general expansion narrative into a precise diagnosis of stress and a foundation for activity. Overtourism, also in African literature, can consequently be seen as, tourist impact that exceeds the limits of acceptable change for the surroundings, residents, and tourists. Negative impacts on residents, common goods, and ecosystems, nonetheless, must be translated into specific, rule-based instruments rather than expressed as general aspirations, according to the literature that interpret overtourism as a negative externality that demands measurable thresholds and clearly defined governance triggers, with an approach consistent with the LAC and RCC⁷² frameworks applied here⁷³.

In Eastern and Southern Africa, research show that overtourism clusters near major attractions (e.g., the *Maasai Mara* during the wildebeest migrations), causing problems on community amenities, increasing local costs, and intensifying friction between residents and tourists; aligned proposals stress measurable local limits, a brief overview of resident’s quality of life, binding regulations linked to licenses, targeted instruction for tourists and operators, and structured local involvement in decisions⁷⁴. Simultaneously, literature underlines that results rely on local governance: where communities possess authority over territory (e.g., reserves, locally governed protected areas, and community land grants), side effects are kept nearby and grants are

⁷¹ M. Okello, S. Yerian, *Tourist satisfaction in relation to attractions and implications for conservation in the protected areas of the Northern Circuit, Tanzania*, 17(5) J.

Sust. Tour. 605 (2009); M. Muganda, A. Sirima & P. M. Ezra, *The role of local communities in tourism development: Grassroots perspectives from Tanzania*, 41(1) J. H. Ecol. 53 (2013).

⁷² Recreation Carrying Capacity (RCC) is a concept used in tourism and environmental management to determine how much tourist/visitor use an area can sustain without causing unacceptable degradation to the environment, local communities, or the visitor experience.

⁷³ A. Capocchi, C. Vallone, M. Pierotti & A. Amaduzzi, *Overtourism: A Literature Review to Assess Implications and Future Perspectives*, cit. at 10, 4.

⁷⁴ S. W. Maingi, *Sustainable tourism certification, local governance and management in dealing with overtourism in East Africa*, 11 W. Hosp. Tour. Th. 532 (2019).

distributed; where access is restricted or unique, displacement, fencing of routes and waterfronts, extraction through exclusive grants, and rezoning-led erosion of customary use recur⁷⁵.

Given that the dispossession issue linked to overtourism fundamentally operates through land control⁷⁶, the corresponding remedy also necessitates a land-based administration system. Expanding the structure already examined, the Community Land Trust (CLT) approach offers a workable organizational solution: In fact, a CLT assures joint proprietorship of land within a local trust while granting households secure, long-lasting, transferable usage of rights and privileges through long leases, holding down prices, limiting speculative flips, and giving residents a formal role in decisions about land.

In the African context, CLTs have been adjusted to conditions of informal tenure, rapid urbanization, and high market pressure, such as in the Voi (Bondeni) case in Kenya, where they operate as anti-displacement measures that formalize societal involvement in land governance while preserving shared ownership of the base asset. The case represents a concrete application of this framework for low-income housing in areas subject to strong market pressures⁷⁷. As in most of CLTs, the State granted a head-lease to the CLT, and the CLT issued sub-leases to households as proof of property, while daily regulations in Voi connect governance to anti-displacement; a nine-member board of trustees and a residents' committee, with reserved positions for women, administers the trust and accounts are audited and adopted at the annual assembly.

In the case study examined, key stipulations limit ownership by non-residents, grant the trust a pre-emptive right to acquire houses before external purchasers, and schedule payments to align

⁷⁵ R. Musavengane, L. Leonard, *Conservation, Land Conflicts and Sustainable Tourism in Southern Africa*, cit. at 70.

⁷⁶ *Ibid.*

⁷⁷ E. Midheme, F. Moulaert, *Pushing back the frontiers of property: Community land trusts and low-income housing in urban Kenya*, 35 *Land Use Policy* 73 (2013). According to the Author, "The Voi record, represents the legal set-up step by step. Residents first organized and registered a settlement society under the Societies Act; a trust deed established administrative guidelines; trustees were subsequently appointed and registered as the Tanzania-Bondeni Community Land Trust under the Trustees (Perpetual Succession) Act".

with income; the head-lease also binds the local administration to recognize existing houses “as-is,” with gradual compliance to building by-laws. According to Midheme, these features lower the possibility of forced relocations and desperate sales when land values increase⁷⁸. Some critical governance-related issues cannot be ignored, such as lengthy implementation periods, statutory bias toward individual titling, legal technicalities including the rule against perpetuities, and the cost of surveying and registration. Nonetheless, the CLT model seems to point effectively to enabling directions, acknowledging the positive impacts of promoting the societal function of property, collective property models and urban collaborative governance patterns, which would facilitate the replication of CLTs in tourism-exposed sectors where demand can quickly price out local populations.

A parallel institutional path emerged across Eastern and Southern Africa during the 1990s: community-based natural resource management (CBNRM) joined with market-based systems like concessions and joint ventures. Van Wijk, Lamers, and van der Duim demonstrate that these setups ensured vast territories for preservation and tourism while creating governance issues, specifically benefit-sharing consistency, participation, and dispute settlement, proving once more that legal and administrative structure - trusteeship, pre-emption, eligibility rules, gender representation, review - is the enabler of fair results. CLTs (urban/coastal) and CBNRM/conservancies (rural/wildlife) thus operate as institutional complements that divide use rights from speculative trade rights and install local decision power⁷⁹.

According to Neef, furthermore, these land instruments correlate with warnings from the broader tourism-and-displacement literature, to be proven through two regional governance tests. Primarily, rights-and-revenue tests: studies from Southern Africa underline that concession and lease terms ought to mandate collective access rights and clear profit-sharing with local

⁷⁸ E. Bassett *Tinkering with tenure: The community land trust experiment in Voi, Kenya*, 29 *Habitat International* 375 (2005).

⁷⁹ J. Van Wijk, M. Lamers & R. van der Duim, *A Dynamic Perspective on Institutional Arrangements for Tourism, Conservation and Development in Eastern and Southern Africa*, in R. van der Duim, J. van Wijk & M. Lamers (eds.), *Institutional Arrangements for Conservation, Development and Tourism in Eastern and Southern Africa* (2015).

supervision; where these are weak, enclosure and extraction recur⁸⁰. Secondly, adaptive-stability tests: comparative reviews highlight conflict-resolution forums and review clauses to keep agreements resilient to market and policy shocks⁸¹.

Portraying overtourism just as an unfavourable side effect, further supports pairing LAC/RCC⁸² limits with automatic licensing starts when indicators are exceeded⁸³. Where isolated developments and exclusive grants drive enclosure and appropriation or extraction, though, CLTs socialize appreciation and maintain decision locally; they help in preventing the dispossession patterns mapped in comparative studies and give cities a tangible mechanism to balance preservation, access, and livelihoods in tourist path.

On the coast, the capacity issue becomes very tangible also for African beaches, exceeding the physical and ecological limits of these sites and endangering coral reefs, with a pattern spread throughout the world. At Tavarua (Fiji), restricting usage to roughly 10–14 surfers per session at key breaks safeguarded security and satisfaction, and sustained the attraction's viability, while at Lagundi Bay (Indonesia), open access that surpassed about 15 users at the main take-off led to disputes in the line-up, reduced visitor satisfaction, and environmental stress. The decision to establish a site-specific limit, enforce it fairly, and align operator licenses and concessions with those numbers therefore seems to have paid off⁸⁴.

In Southern and East Africa, wildlife and heritage concessions already link site-specific use limits to license

⁸⁰ R. Musavengane & L. Leonard, *Conservation, Land Conflicts and Sustainable Tourism in Southern Africa: Contemporary Issues and Approaches*, cit. at 70.

⁸¹ J. Van Wijk, M. Lamers & R. van der Duim, *A Dynamic Perspective on Institutional Arrangements for Tourism, Conservation and Development in Eastern and Southern Africa*, cit. at 79.

⁸² RCC helps define limits and thresholds, for example, the maximum number of tourists, facilities, or activities that a site can handle before negative impacts (like overcrowding, pollution, or cultural disruption) occur. It is often used alongside the Limits of Acceptable Change (LAC) framework, which focuses on identifying the *acceptable levels of change* in environmental or social conditions, and then managing tourism accordingly.

⁸³ A. Capocchi, C. Vallone, M. Pierotti, A. Amaduzzi, *Overtourism: A Literature Review to Assess Implications and Future Perspectives*, cit. at 10, 7.

conditions, linking RCC figures to permit quotas, session durations, or seasonal closures. Relevant literature, nonetheless, recommends a brief indicator of dashboard, certification aligned with local regulation, targeted education for tourists and operators, and regular reviews with civil society and the industry to maintain rules current and fair⁸⁵, establishing administrative consistency familiar to operators and communities, and improving compliance and enforcement.

Culture also plays a crucial role in governance: African aquatic traditions, for instance, reveal long-held proficiencies in swimming, canoe-building, and the use of water, clarifying how water has served as a space for autonomy and cultural continuity in the diaspora. For tourism planning, this implies protecting everyday access points, working beaches, and ceremonial areas, engaging local custodians in decisions, and designing codes of conduct that respect practice and place, to mitigate conflict and keep destinations genuine and inclusive⁸⁶.

Collectively, the exposed measures move from reactive control to collaborative, rule-based governance that keeps places habitable while tourism expands. To maintain legitimacy, authorities ought to release benefit-sharing records, access-way maps, and closure-trigger indicators on a fixed annual cycle, so local groups can examine performance and initiate planned reviews when limits are breached. Finally, Community Land Trusts (urban/coastal), that proved to be an effective instrument to avoid eviction and an extractive use of land, should be placed within a regional toolkit that also includes conservancies, community concessions, and post-restitution agreements, each tailored to its setting but grounded in clear limits, due-diligence on rights, and local decision power⁸⁷.

⁸⁵ S. W. Maingi, *Sustainable tourism certification, local governance and management in dealing with overtourism in East Africa*, cit. at 74, 3.

⁸⁶ T. Green, review of Kevin Dawson, *Undercurrents of Power: Aquatic Culture in the African Diaspora* (2018), 124 *Amer. Hist. Rev.* 1998–1999 (2019).

7. Discussion and limitations of the research hypothesis

Despite its promising prospects, this research hypothesis nevertheless faces certain limitations, and, in any case, still leaves room for further discussion of the arguments presented.

First of all, especially in the most fragile areas – such as Venice, due to its architectural and natural characteristics as a lagoon city built on stilts, or certain coastlines or other particularly delicate natural sites – the policies discussed above, despite the profusion of efforts by all the actors involved, may not be sufficient to preserve a sufficient degree of territorial integrity. From this point of view, the governance perspective that is offered, in translating into an operational strategy to support policy-makers, requires constant dialogue with scholars from other disciplines, such as architecture, engineering, or biology.

Secondly, not all communities – especially the most vulnerable ones – nor all public administrations are ready to act for effective co-management of the city and the territory: the results presented here, in fact, can certainly be integrated and explored in greater depth in almost two directions, both supported by an amount of scientific literature. First and foremost, it is necessary to ensure the definitive empowerment of vulnerable communities through a variety of tools, ranging from redistributive and welfare instruments to specific training and information strategies; secondly, with regard to local public administration, it is also possible to address in greater depth the issue of the administrative and contractual tools that a city could use to implement collaborative pathways to social innovation, even beyond the case studies presented on tourism issues.

For sustainable management of tourist flows, as in other areas, therefore, the implementation of innovative solutions based on co-governance requires a strong culture of collaboration, but also a propensity for administrative innovation on the side of public entities, as well as a connection with the local area that encourages private tourism operators to participate in this process despite some obvious risks of an immediate reduction in revenue. The public administration, on its side, should therefore be aware of its prominent role in empowering local communities, influencing the choices adopted by private operators, and ultimately driving this democratic and just form of innovation.

8. Perspectives and insights for future research

Many of the topics covered in this paper, whose common thread concerns the liveability of places affected by overtourism, can be explored in greater depth individually. Furthermore, the word overtourism can be used to address and depict a variety of phenomena that often overlap, creating a complex problem for the urban system conceived as a whole.

One of these is undoubtedly the issue of housing, which is not limited to the critical issues posed by the distorting effects of excessive tourist flows, but also involves several other factors, from demographic ageing to the mobility of workers and students or climate migration, which deserve adequate consideration. Many solutions, from social housing to intergenerational co-housing, have not been covered in this article and may well be the subject of study elsewhere.

Another issue underlying some of the innovative policies used as case studies is, for example, the reuse and enhancement of abandoned sites for the purpose of promoting tourism and culture in the area, as well as the environmental impact of tourism, which also deserves further consideration.

From an economic standpoint, a key challenge lies in measuring the real impacts of overtourism, since it is strongly linked to an undefined number of other phenomena and variables that can differ significantly from one city to another. In economic terms, this represents not only a problem of information asymmetries, but also problem of causal identification: is it challenging to isolate the effects attributable specifically to tourism pressure from those linked to housing market dynamics, demographic trends, changes in local labour structures. The social and environmental costs are increasingly visible, but still the economic benefits of tourism are often significant and capable of outweighing the perceived negative externalities. As a result, local economies may be reluctant to adopt restrictive policies, in many cases tourism represents one of the few viable alternatives, especially in post-industrial or mono-economic regions.

Moreover, the hospitality sector is typically labour intensive with a low value added per worker, meaning that the contribution to overall productivity growth is limited and thus not well suited for long-term growth strategies of urban areas.

This further reinforces the need to investigate hybrid governance models, which do not aim simply at reducing tourist flows, but rather at redistributing value, strengthening community capacity, enhancing territorial resilience aiming to raise the value added given from the hospitality sector. The crucial question that is still unanswered is how to shift from a low value tourism model to a high value one. According to the TRAN report on Overtourism there is a “need for a rebalancing of the growth paradigm” thus focusing on tourism quality and its connections to local employment, profitability and fair pay and not merely on visitors’ arrivals. Still there is a persistent lack of reliable and detailed data and evaluation methods and procedures should be developed towards commonly accepted performance indicators.

Finally, from a more strictly legal perspective, the contractual instruments mentioned above will need to be examined in detail – in particular partnerships, which are now more than ever promoted by the European Union and are well suited to the collective management of territories – as well as the impacts, including in terms of the inclusion of the most vulnerable communities, of a new tourism economy based on co-governance and partnership.

PART II - IMPACT DEVELOPMENT AND INVESTMENTS

SUSTAINABLE IMPACT DEVELOPMENT
THROUGH MULTI-STAKEHOLDER PARTNERSHIPS:
FROM GENERAL PRINCIPLES TO LOCAL PRACTICES

*Kenneth Amaeshi**, *Adriano Contardi***, *Stella Scocco****

Abstract

Contemporary challenges, such as climate change and the digital transition, have highlighted the limitations of traditional governance models, often characterized by top-down decision-making processes. This article argues that achieving a just transition requires a new quality of sustainable innovation, and that traditional top-down innovation models are inadequate to address contemporary social, environmental, and territorial challenges. Instead, sustainable innovation must be co-governed and co-produced by public authorities, private actors, civil society, knowledge institutions, and communities. The article turns to the rise of sustainable impact finance and the growing emphasis on measurable, real-world impacts to show how this new focus can reshape incentives for both public and private actors. It then analyses how the European Union (EU) and Italian legal frameworks, governed by principles such as the partnership principle and the Italian principle of result, can be used to steer public administration toward impact-oriented, co-governance models, aligning policy and mechanisms. Cities emerge as important enablers of this transformation due to their connectedness to communities and institutional flexibility. Two case studies, Reggio Emilia and the Okobi initiative in Nigeria, illustrate how impact-driven multistakeholder partnerships can take form. The article concludes by identifying key challenges and outlining pathways to strengthen impact-based partnerships and advance a more inclusive, just and sustainable governance model of innovation.

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1. Introduction

Achieving a just transition requires both technological advancement and a new quality of sustainable innovation capable of generating equitable social, ecological, and territorial outcomes. Public institutions and private actors increasingly recognise that innovation alone is insufficient to address systemic challenges, and attention has turned toward how innovation is financed, governed, and embedded within communities. Today, two primary pathways for funding sustainable innovation projects exist: public investments and sustainable finance mechanisms. This article examines these two funding channels and the possibilities they constitute in term of steering innovation toward more inclusive and socially grounded outcomes.

This article aims to demonstrate that collaborative governance models, in which public authorities, private actors, R&I actors, civil society, and local communities co-design and co-manage interventions, yield a greater societal impact. It aims to show that the way innovation is governed, who participates, who decides, and who benefits, shape the quality, durability, distribution, and sustainability of its impact. Therefore, governance should be understood as an incremental and inseparable part of impact. Thus, as public and private financing mechanisms

increasingly adopt impact-oriented logics, embedding governance into impact considerations is key.

Furthermore, the article shows that existing legal principles, most notably *the partnership principle* and *the principle of result*, can be leveraged to promote this new standard of governance.

To support this argument, two case studies are conducted: Okobi in Nigeria and Reggio Emilia in Italy, both of which represent impact-based, community-centred ecosystems of innovation, where communities are active co-producers, not only beneficiaries. Together, they illustrate how co-governed innovation can emerge in both the Global North and the Global South, and why partnership-driven approaches can yield more just and sustainable outcomes.

The article proceeds as follows: Section I describes the evolution towards impact considerations in the fields of sustainable finance; Section 2 describes how the same considerations are gaining prominence in legal and policy frameworks and how legal principles can be leveraged to support such development; Section III underlines our argument that durable partnerships and co-governance consolidate results by linking *the partnership principle* with the *principle of results*; Section IV reimagines the role of cities based on these findings; Section V and VI presents the two case studies; Section VII discusses the key institutional and operational challenges that may limit the adoption, scalability, and effectiveness of impact-based, partnership-driven innovation models; Section VIII summarises the article's main findings and reflects on the broader implications for policy, governance, and future research on sustainable and just innovation.

2. The emergence of sustainable impact finance

The mechanisms through which resources are mobilised, whether through public programmes, private capital, or hybrid models, increasingly determine not only which projects are pursued but also how their impacts are defined, measured, and distributed. As funding frameworks evolve toward impact-oriented logics, they shape the incentives for both public authorities and community actors. For this reason, it is necessary to examine the emerging landscape of sustainable impact finance.

Sustainable impact finance is an approach that prioritises measurable, real-world outcomes over mere compliance or risk avoidance. Scholars and practitioners in sustainable finance have begun to critique earlier ESG (environmental, social, governance) investing models for their limited effect on on-the-ground problems¹. Consolandi et al. describe the present as entering a “new era” of sustainable finance, centred on the idea of double materiality. In this approach, investors and regulators focus not only on how sustainability issues impact financial outcomes, but also on how investments affect society and the environment². In practice, this means moving beyond box-ticking ESG methodologies and toward mandated disclosure and analysis of externalities, such as carbon footprints or social impacts³. By integrating such metrics, traditional portfolio strategies are being reconsidered to account for systemic effects, “redefin[ing] what financial ‘materiality’ means” in light of sustainability goals⁴.

However, recent research highlights that much of what is currently labelled as “sustainable” or “impact” investment still falls short of delivering genuine results. Scheitza and Busch, for example, examine funds marketed under the EU Sustainable Finance Disclosure Regulation (SFDR) and find that many fail to meet their impact claims. In an analysis of over 180 purported impact funds, they report that only about one-third meet the criteria for genuine impact investment, a proportion that remains consistent even among SFDR Article 9 funds (the category ostensibly intended for impact-oriented investments)⁵.

The finding of widespread “impact-washing” underscores the need for a policy shift in defining or measuring this double materiality; the need for new methodologies, robust measurements, and common frameworks emerges as key facilitators to make sure,

¹ C. Consolandi, A. Roncella, *Finance for Impact: the New Era of Sustainable Finance*, in C. Busco, C. Consolandi, I. Malafronte, F. Sammarco, E. Scognamiglio (eds.), *The Impact of Organizations Measurement, Management and Corporate Reporting* (2023).

² Ibid.

³ C. Consolandi, J. Hawley, *From ESG to Sustainable Impact Finance: Moving Past the Current Confusion*, in A. B. Schmidt (eds.), *Sustainable Investing. Problems and Solutions* (2024).

⁴ Ibid.

⁵ L. Scheitza, T. Busch, J. Metzler, *The Impact of Impact Funds: A Global Analysis of Funds with an Impact Claim*, 56 *Journal of Financial Transformation* 9 (2022).

as Busch et al. (2021) observe, that finance in this new paradigm can become a means to foster the transition to a sustainable economy, with impact investments explicitly aiming to solve social and environmental challenges rather than manage ESG risks. In “Impact: Reshaping Capitalism to Drive Real Change”, Cohen provides case studies showing how measurable impact metrics (such as verified carbon reductions, health outcomes, job creation, or educational attainment) actually can alter capital flows, with companies generating stronger social outcomes gaining a competitive advantage in financing and valuation.⁶

In effect, George Serafeim and colleagues have suggested a methodological shift in corporate reporting through the development of impact-weighted accounting. In a series of empirical studies, they demonstrate that firms can be ranked not only by financial profitability but also by the positive and negative impacts they generate for workers, customers, the environment, and society. In “Impact-Weighted Accounts: The Missing Piece in Financial Statements” Serafeim, Zochowski, and Downing argue that standardised monetary valuation of impacts allows investors and regulators to identify firms that create (or destroy) public value while still being profitable⁷. In a later study, the authors construct large datasets converting environmental damages and product-related harms into monetary values, finding that many firms that appear sustainable when measured through ESG disclosure actually create net negative environmental or product impacts when measured through impact-weighted accounting⁸.

In summary, a results-based policy framework could be strengthened by incorporating impact finance principles, which link funding decisions to impact indicators. By doing so, private funding can help drive the EU’s climate and social objectives, rather than merely tracking financial inputs or outputs. The literature further supports the argument that markets increasingly reward measurable contributions to collective goals, such as the SDGs, but

⁶ R. Cohen, *Impact: Reshaping Capitalism to Drive Real Change* (2020).

⁷ G. Serafeim, T. R. Zochowski, J. Downing, *Impact-Weighted Financial Accounts: The Missing Piece for an Impact Economy*, White Paper Harvard Business School (2019).

⁸ D. Freiberg, DG Park, G. Serafeim, T. R. Zochowski. *Corporate Environmental Impact: Measurement, Data and Information*, Working Paper Harvard Business School (2021).

only where reporting and verification frameworks are in place. In this sense, impact-weighted accounting and impact assessments offer a methodological necessity for the shift toward a results-based financial architecture in sustainable finance.

Overall, the emergence of sustainable impact finance reflects a significant shift toward investment approaches that prioritise verified, real-world outcomes rather than formal compliance. This development challenges existing ESG paradigms and highlights the growing importance of robust methodologies, impact-weighted metrics, and transparent reporting frameworks. As these financial expectations increasingly shape the behaviour of both public and private actors, they necessitate governance and legal structures capable of producing and validating such an impact. The following section examines how EU and national legal frameworks are evolving to meet this demand.

3. A quest for a new quality of sustainable innovation in legal and policy frameworks

The complexities of contemporary challenges, such as climate change and the digital transition, have highlighted the limitations of traditional governance approaches, often characterized by top-down decision-making processes.

Current innovation policies, for instance, risk falling short in terms of both sustainability and justice, particularly as they often prioritize technological advancement without adequately addressing environmental, social, and spatial equity concerns. To enhance its legitimacy and effectiveness, the European Union is working on the engagement of vulnerable communities, through policies that encourage shared systemic stewardship of common essential resources and make the current twin transition fair and just⁹. The demand for impact-based co-governance policies is clear in at least three domains: Research and Innovation (R&I), Cohesion Policies, Sustainable Corporate Governance and Sustainable Finance. The growing focus by the EU on these policy

⁹ C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, 1 *Munus* 8 (2024).

frameworks underline the importance of the partnership principle¹⁰, with possible reflections at the national and local levels.

For example, Horizon Europe, the most important European commitment to scientific innovation, guided by the principle of sustainable innovation¹¹, seeks to advance not only scientific frontiers but also societal needs in a sustainable manner¹². The aim is thus to deepen the relationship between science and society to maximize the benefits of their interaction.

Among the areas of interventions of the European Institute of Innovation and Technology (EIT) this greater scope is explicitly mentioned in Regulation (EU) 2021/695¹³ at Recital 51¹⁴ and in the establishment of Pillar III 'Innovative Europe'¹⁵.

¹⁰ The partnership principle implies that local authorities and social representatives participate in the design, execution and evaluation of Cohesion Policy and European Structural and Investment Funds. See S. Pazos-Vidal, *A legal perspective on the origins and evolution of the EU Cohesion Policy*, in N. F. Dotti, I. Musiałkowska, S. De Gregorio Hurtado, J. Walczyk (eds.), *EU Cohesion Policy* (2024).

¹¹ The origin of this principle can be found in the "Right to Science," (Art. 27, Universal Declaration of Human Rights) which is understood as the right of everyone (not just scientists) to have access to it and its benefits, see A. Orsi Battaglini, *Libertà scientifica, libertà accademica e valori costituzionali*, in *Nuove dimensioni dei diritti di libertà. Scritti in onore di Paolo Barile*, (1990); the connection between City and Science has led to the diffusion of the concepts of Citizen Science – enabling citizens to participate in the process of scientific creation – and City Science - which considers science as a tool to address issues related to sustainable urban development, see C. Iaione, *Città, scienza e innovazione. Il diritto alla scienza per la città come pietra angolare di una nuova governance urbana orientata allo sviluppo sostenibile e alla responsabilità intergenerazionale*, 3 *Munus* 491 (2021). Therefore, the principle of sustainable innovation implies a specific type of progress that is considered sustainable because it is accessible and includes benefit-sharing mechanisms.

¹² M. Mazzucato, *Mission-Oriented Innovation Policies: Challenges and Opportunities*, 27 *Ind. Corp. Change* 805 (2018).

¹³ Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013.

¹⁴ "(...) The Programme should also seek to remove barriers and boost synergies between science, technology, culture and the arts to obtain a new quality of sustainable innovation. (...)".

¹⁵ "Areas of intervention (defined in Annex II): sustainable innovation ecosystems across Europe (...)".

For the aforementioned reasons, the Horizon program has been designed to engage and involve different societal actors, including citizens and civil society organizations, in co-designing and co-creating research and innovation agendas, content, and processes. The program also seeks to remove barriers and foster synergies between science, technology, culture, and the arts, in order to achieve a “new quality of sustainable innovation”.

In achieving this, the partnership principle¹⁶ is a central component, guaranteeing not only the diffusion of the innovation but also a benefit-sharing mechanism with vulnerable communities, and consequently, as the doctrine suggests¹⁷, a shared systemic stewardship.

Secondly, the engagement of local communities is at the core of the Cohesion Policies. Based on Art. 174, par. 1¹⁸, of the Treaty on the Functioning of the European Union (hereinafter “TFEU”), the Regulation (EU) 2021/1060 adopting Common Provisions for the so-called structural funds embedded the partnership principle among its values¹⁹. This is particularly clear in Art. 31, “Community-led local development”, which operationalizes the principle mentioned in Art. 8, “Partnership and multi-level governance.”

Cohesion policies have progressively assumed a broader role within European priorities, acting as a vehicle for achieving policy goals for which there is no clear competence elsewhere in the Treaties. Consequently, they have been described as playing somewhat the role of a “joker”²⁰. For instance, Art. 175(3) TFEU served as the legal basis for the Recovery and Resilience Facility (hereinafter “RRF”), as the Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021

¹⁶ C. Iaione, *Just Sustainable Innovation*, cit. at 12, 35.

¹⁷ Ibid.

¹⁸ Art. 174, 1, TFEU: “In order to promote its overall harmonious development, the Union shall develop and pursue its actions leading to the strengthening of its economic, social and territorial cohesion”.

¹⁹ See Regulation (EU) 2021/1060, Recital 14: “The principle of partnership is a key feature in the implementation of the Funds, building on the multi-level governance approach and ensuring the involvement of regional, local, urban and other public authorities, civil society, economic and social partners and, where appropriate, research organisations and universities”.

²⁰ B. De Witte, *The European Union’s Covid-19 Recovery Plan: the Legal Engineering of an Economic Policy Shift*, 58 *Common Mkt. L. Rev.* 655 (2021).

establishing the RRF was based on Art. 175(3) TFEU²¹. Accordingly, it is possible to advance the hypothesis that Cohesion Policies and structural funds are evolving from instruments of redistribution (based on the principle of solidarity) among European regions with different levels of development into tools able to guide the economic policies of Member States²². It is interesting to note that, according to this perspective, macroeconomic conditionalities in the Common Provisions Regulation (EU) 2021/1060, which govern the functioning and operation of structural funds, take on greater importance. Cohesion policy has become the basis for “money for reforms”²³ but could also evolve into “money for impact”.

The current debate on the alignment between the RRF and Cohesion Policies can reinforce this hypothesis. The idea of performance-based budgeting can link the results achieved to decisions on fund allocation²⁴. Of course, this will be tied to the necessity of clarifying the indicators, which need to be determined in advance, and payments will be made only if these performance indicators are met²⁵.

In discussions about the post-2027 Multiannual Financial Framework (MFF), there is an expectation of a more substantial shift towards result-based governance²⁶. This change will be particularly relevant at local levels, as cities can ensure the coordination of the implementation of the results.

²¹ N. Lupo, *Next Generation EU e sviluppi costituzionali dell'integrazione europea: verso un nuovo metodo di governo*, 3 *Dir. Pubbl.* 735 (2022).

²² I. Ottaviano, *Politica di coesione e governance economica europea: prospettive giuridiche di un'interazione in evoluzione*, 4 *Eurojus* 106 (2023).

²³ P. Leino-Sandberg, P. Lindseth, *How Cohesion Became the EU's Vehicle for Economic Policy: Tracing the Hidden History of Article 175(3) TFEU*, *Verfassungsblog* (2023).

²⁴ See M. Sapała, *Performance-based delivery of the Recovery and Resilience Facility Blueprint for future EU spending instruments?*, *European Parliamentary Research Service* (2024).

²⁵ Art. 125, Regulation (EU) 2018/1046: “1. Union contributions under direct, shared and indirect management shall help achieve a Union policy objective and the results specified and may take any of the following forms:

(a) financing not linked to the costs of the relevant operations based on: (...)

(ii) the achievement of results measured by reference to previously set milestones or through performance indicators”.

²⁶ See *Performance framework for the EU budget Concepts and practices*, Policy Department for Budgetary Affairs, DG IPOL, European Parliament (2024).

As the paper will analyse, this reasoning can be aligned with specific contracts whose remuneration will be based on the impact produced. Moreover, in 2017, an initial proposal for revising conditionality, put forward by the European Commission, aimed to complement macroeconomic conditionality with a social impact assessment of the policies adopted on this basis²⁷. As will be discussed later, impact (not only social but multidimensional) assessments are calling for local governments to enable (multistakeholder) partnerships, as it can influence the possibility to benefit from European funds.

Finally, the involvement of local communities (*rectius* partnership principle) has also been considered by the EU in the field of sustainable finance and sustainable corporate governance. It is important to recall that the Principles for Responsible Investment (PRI) define stewardship as “the use of influence by institutional investors to maximize overall long-term value including the value of common economic, social and environmental assets, on which returns and clients’ and beneficiaries’ interests depend”. This is achieved through governance mechanisms that foster partnerships as a benefit-sharing mechanism with all relevant actors.

The initiatives of the European Commission on sustainable finance and sustainable corporate governance show a growing recognition of the need to include a social dimension, interpreted by some scholars as entailing governance impacts rooted in stakeholder engagement²⁸.

²⁷ C. Pinelli, *I temi della condizionalità nel negoziato sul Quadro Finanziario Pluriennale 2021-2027*, IAI Documents (2018).

²⁸ This shift is evident in the Corporate Sustainability Reporting Directive (hereinafter “CSRD”), Sustainable Finance Disclosure Regulation the EU Taxonomy Regulation, the Corporate Sustainability Due Diligence Directive (hereinafter “CSDDD”). CSRD mandates sustainability report for a significant number of EU companies, introducing the notion of “double materiality”, according to which companies must show how their performance affects vulnerable communities. The Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU of the European Parliament and of the Council as regards sustainability reporting standards established at the ESRS S3 the notion of “Affected communities”. Recently, the CSDDD addressed the debate. In fact, Recital 65 established that “particular attention should be paid to the needs of vulnerable stakeholders, and to overlapping vulnerabilities and intersecting factors, including by taking into account potentially affected groupings or communities, for example those protected under the UN Declaration on the Rights of

Consequently, the need to co-benefit or co-manage common economic, social, and environmental assets should be operationalized in new legal agreements. Urban Sustainable Development and Innovation Partnerships represent a set of new legal instruments to deliver this kind of public policy objectives²⁹. The new agreements should thus empower and include vulnerable communities in the decision-making process, giving them shared responsibility for the positive impact to be produced on their territory. In this model, the role of the so-called enabling state is limited to the coordination of the efforts of all actors³⁰. To co-produce an impact, stakeholders must jointly define the objectives to be achieved. Accordingly, vulnerable communities should not merely be involved as passive recipients of requests; rather, they must actively participate in the decision-making process, contributing to the identification of targets and the management of common assets to achieve the agreed goals. In other words, it will be crucial to shift from a collaborative process in which all stakeholders contribute to the creation of the product and/or service (co-design) to a process where the stakeholders come together to define the objectives, priorities, and actions to be taken (co-programming). By doing so, each party will be accountable for achieving the targets.

To summarise, EU policy developments indicate a shift toward integrating impact considerations and community engagement into the governance of innovation. The partnership principle in particular has emerged as a key mechanism for enabling co-programming, co-design, and co-governance. However, the practical realisation of these ambitions also depends on national administrative reforms, such as the Italian principle of result, which reframes how public administrations justify and evaluate spending. The following section explores how these two

Indigenous People and those covered in the UN Declaration on Human Rights Defenders". See C. Iaione, *Just Sustainable Innovation*, cit. at 12, 23.

²⁹ C. Iaione, *Urban Sustainable Development and Innovation Partnerships*, 2 IJPL 605 (2022).

³⁰ This role has been central for the networks of City Science Offices, established within the framework of the City Science Initiative. These units, established within local governments at the city level, have the responsibility to understand the role of science for sustainable urban development and to facilitate the exchange of good practices, see C. Iaione, *Città, scienza e innovazione*, cit. at 14, 500.

principles intersect and how their combined logic can support a new generation of impact-based partnerships.

4. The interlinkages between the principle of result and the partnership principle

As described, the partnership principle is increasingly gaining prominence at the European level. Consequently, there is a need to consider whether and how this principle can be recognized or can influence the general activity of the Italian public administration³¹. While the Italian doctrine has historically devoted attention to the study of public-private partnerships, the implementation of the partnership principle in the light of a new quality of sustainable innovation necessitates a different approach. In fact, the analysis of public-private partnerships often lacks emphasis on the involvement of civic, social, non-profit and R&I actors. Conversely, as mentioned above, the EU is promoting the involvement of citizens, civil society, research organisations, and universities. Moreover, it is not only the possibility of selecting these actors based on overriding reasons of solidarity and budgetary efficiency that can justify this type of partnership.

The added value of this type of partnership lies in its ability to better address issues of general interest³². In other words, public

³¹ In the Italian legal context, this principle is often described as regulating the relationship between citizens and public administration, in accordance with the principle of horizontal subsidiarity enshrined in Article 118, last paragraph, of the Italian Constitution (*ex multis* M. Clarich, *La collaborazione nel procedimento amministrativo*, 3 Dir. Amm. (2024)). However, its origins should be interpreted as a foundational element of the Italian legal system, rooted in Article 2 of the Italian Constitution (see Constitutional Court, judgment of June 3, 1970, No. 89, which refers to the general principle of "civic collaboration," derived from Article 2's emphasis on the observance of "duties of social solidarity").

³² One example of these partnerships can be represented by the Climate City Contract. The municipality of Rome recently closed the procedure to receive the interests of all the actors interested in the process of the ecological and digital transitions of the city (see: *Avviso di Manifestazione di Interesse per aderire al Climate City Contract di Roma Capitale (EU Mission "100 Carbon Neutral and Smart Cities by 2030") attraverso la proposta di azioni di decarbonizzazione realizzate o in previsione* available at https://www.comune.roma.it/web-resources/cms/documents/Esecutiva_Determina_RA_270_2024.pdf). This initiative is part of the EU Mission 100 Climate-Neutral and Smart Cities by 2030,

administrations can justify the need to create such partnerships to achieve a more significant impact on society³³. Accordingly, public-private partnerships should strive to involve other actors in co-producing public value³⁴. A possible solution is a broader version of these partnerships, defined by the doctrine of public-private-community partnerships or multistakeholder partnerships. These agreements involve not only public parties and businesses but also civil society, citizens, and R&I actors. In the Italian context, examples of these partnerships can already be found in the energy sector³⁵, the health sector³⁶, and the management of cultural heritage³⁷.

It is interesting to note that the decision by public administration to open procedures for activating multistakeholder partnerships may be encouraged by the introduction of the principle of result following the reform of the Italian Code of Public Contracts (Legislative Decree 31 March 2023, no. 36)³⁸. This principle is not unfamiliar; it appears to be the culmination of decades of doctrinal reflections, encapsulated in the term

see L. Kappler, *La sostenibilità dei sistemi di trasporto e della mobilità nelle città*, 3 *Munus* 628 (2021).

³³ See “*Linee guida sul rapporto tra pubbliche amministrazioni ed enti del terzo settore negli artt. 55-57 del d.lgs. n.117/2017 (Codice del Terzo settore)*”, approved with decree n. 72/2021 of Italian Ministry of Labour and Social Policies. According to these guidelines, such procedures could also plan to regulate the social impact generated by the partnerships.

³⁴ A. Moliterni, *Le prospettive del partenariato pubblico-privato nella stagione del PNRR*, 2 *Dir. Amm.* 443 (2022).

³⁵ A. Aquili, *Innovazione e sostenibilità nel settore energetico: nuove forme partenariali e contrattuali per le comunità energetiche*, 1 *Munus* 238 (2024).

³⁶ C. Iaione, A. Coiante, *Il partenariato per l’innovazione sostenibile nel settore sanitario*, 6 *Riv. giur. edil.* (2022).

³⁷ G. Sciuillo, *Il partenariato pubblico-privato in tema di patrimonio culturale dopo il Codice dei contratti*, 3 *Aedon* (2021); A. Contardi, *Innovazione e sostenibilità nel settore culturale: i partenariati come strumento di innovazione sociale*, 1 *Munus* 267 (2024). Recently, this procedure has been opened for the enhancement of the “Castello Carlo V di Lecce”. The impact evaluation of the partnership will be assessed by Fondazione con il Sud (procedures available at: <https://museipuglia.cultura.gov.it/avviso-pubblico-castello-carlo-v-di-lecce/>)

³⁸ In any case Art. 6, Legislative Decree 31 March 2023, no. 36 can serve to incorporate these European policies.

“administration of results,” which stands in contrast to “administration by acts”³⁹.

In any case, the introduction of the “principle of result” as a *Grundnorm* of the overall reform implies that this principle should operate as a criterion for the interpretation and application of the provisions of the entire Code⁴⁰. However, since the need to achieve a result was for a long time considered a corollary of the principle of good performance outlined in Article 97 of the Italian Constitution (and also the related principles of efficiency and effectiveness), the scope of this new principle is still unclear, and so is its value for the legitimacy of the action of the public administration. According to part of the doctrine, the principle of result should be interpreted as “principle in the mirror”, to understand the goal that the legislator wanted to achieve, in contrast to the previous applicable law⁴¹.

Since the principle of sustainable innovation together with the partnership principle are increasingly influencing several fields of law⁴², the added value of the Italian reform that introduced the principle of result could be represented by the necessary attention that the impact produced should have in the execution of the contract and, therefore, in the decisions of how to spend public

³⁹ The debate was based on the need to assign a different meaning to the expression “administration of result” than what was already encompassed within Article 97 of the Italian Constitution. Among all, See M. Immordino, A. Police, *Principio di legalità e amministrazione di risultati* (2004). Against the expression “administration of result”, S. Cassese, *Cosa vuol dire amministrazione di risultato?*, *Giorn. Dir. Amm.* 941 (2004).

⁴⁰ A. Sandulli, *Il principio del risultato quale criterio interpretativo e applicativo*, 2 *Dir. Pubbl.* 353 (2024).

⁴¹ *Ibid.*

⁴² The nature of the principle of sustainable innovation is unclear under national law. It is crucial to affirm that a rule can be considered a principle. In fact, principles of law possess an expansive force that enables interpreters to transcend the boundaries of the discipline to which the principle belongs. Accordingly, they potentially lead to the introduction of *quid novi*; See Tar Sardegna, I, 9 May 2018, No. 410. This is what occurred with the principle of precaution, which, originating in the protection of health and the environment, has extended into other branches of the EU legal system. A similar dispute is relevant for the nature of the DNSH; See A. Bartolini, *Green Deal europeo e il c.d. principio DNSH*, 15 *federalismi.it* (2024).

money by the public administration⁴³. In other words, the attention drawn by the principle of sustainable innovation to the impacts on all stakeholders involved in implementing public policies helps clarify the new significance of the principle of results and its relevance to public administration decision-making. Furthermore, it is essential to define the relevant dimensions of these impacts (including the indicators to be used). However, the result should not necessarily be of an economic nature⁴⁴.

In fact, the three classic dimensions of sustainability (Environmental, Social, and Economic) do not fully capture the complexities of urban dynamics. It is essential to consider additional dimensions of impact when implementing public policies and to assess all potential consequences. For instance, public administration may seek to measure the impact of a policy on human and other species' health (health impact); the exchange and growth of cultural, scientific, and knowledge resources (cultural impact); the protection of human, fundamental, civil, and social rights (rights impact); and the long-term effects on future generations (generational impact).

The economic dimension can also encompass the improvement of institutional capacity and multistakeholder cooperation in managing essential common resources (governance impact) as well as the enhancement of market or societal competitiveness through innovation (technological impact). Finally, the environmental dimension can be considered closely linked to the conditions and quality of life of territorial, local, and urban communities (territorial impact)⁴⁵. As explained, the relevant

⁴³ P. Cerqueira Gomes, *EU Public Procurement and Innovation: The Innovation Partnership Procedure and Harmonization Challenges* (2021). He highlights the importance of satisfying public needs, in particular through public procurement, as one of the most effective instruments to redirect innovation towards sustainability. He argues that innovation procurement is a key tool in the EU's innovation policy. Innovation procurement can be seen as an important tool to urban sustainable development. In the case "CasArte", the partnership for innovation has been used to generate new types of housing more sustainable and environmentally friendly; See S. Petricciuolo, G. Canelles, *Housing innovativo e sostenibile: una nuova idea di casa e di città*, 3 *Munus* 681 (2021).

⁴⁴ M.R. Spasiano, *Dall'amministrazione di risultato al principio di risultato del Codice dei contratti pubblici: una storia da scrivere*, 9 *Federalismi.it* 215 (2024).

⁴⁵ Thanks to the experience gained through the Horizon 2020 Project EUARENAS.EU, the Municipality of Reggio Emilia focused on measuring nine

dimensions of impact extend beyond the classic three, particularly in cities, where communities are becoming increasingly diverse and complex.

In any case, this approach can influence discretionary decisions made by public contracting entities, which are often justified by the need to achieve substantive outcomes and positive externalities⁴⁶. In this regard, multistakeholder partnerships can have a greater impact due to the new governance mechanisms involved. Therefore, the diffusion of this new category of contracts can be justified by the increased attention given to the impacts of the public administration's activity. In any case, according to applicable law, the "result" intended by this principle is currently based on the awarding and execution of the contract (art. 1, c. 1, Legislative Decree 31 March 2023, no. 36)⁴⁷.

Additionally, it is worth noting that attention has also been drawn to the importance of measuring the generational impact of laws⁴⁸. Even though introduced for a different purpose – laws express the general interest as determined by the National

dimensions of impact: a) The impact on the territory and the local and urban context; b) The environmental impact; c) The economic impact; d) The social and health impact; e) The educational, cultural, and cognitive impact; f) The impact on civil and social rights; g) The technological and digital impact; h) The institutional impact; i) The generational impact. See Art. 80, c. 6, *Regulation on Urban and Climate Justice Democracy and Justice in Reggio Emilia* (available at: <https://www.comune.re.it/amministrazione/documenti-e-dati/atti-normativi/regolamenti/regolamento-sulla-democrazia-e-la-giustizia-urbana-e-climati-ca-reggio-emilia>.)

⁴⁶ E. Guarnieri, *Il principio di risultato nei Contratti Pubblici: alcune possibili applicazioni, tra continuità e innovazioni*, 4 Dir. Amm. 840 (2023). The author argues that even if public contracts are not explicitly aligned with the principle of sustainable development, still the administration must pursue sustainable objectives as provided by European law. Moreover, according to art. 3-*quarter*, c. 2, Legislative Decree N. 152 of April 3, 2006, requires all public administrations to comply with the principle of sustainable development. Therefore, there is no need for a sector-specific (since public contracts can be considered a specific sector) provision. E. Frediani, *Lo sviluppo sostenibile: da ossimoro a diritto umano*, 3 Quad. Cost. 629 (2017).

⁴⁷ The importance of the execution of the contract implies a shift to the detriment of the traditional phase of the selection of the contractor. See, M. Macchia, *The new public procurement code*, 16 1 IJPL 82 (2024). Still, the description of the execution of the contract seems to describe the notion of impact.

⁴⁸ L. Bartolucci, *La valutazione di impatto generazionale delle leggi come forma di attuazione degli articoli 9 e 97 della Costituzione*, 4 federalismi.it (2024).

Parliament, while the discretionary powers of the public administration guide how to pursue these goals – this shift is still important to reinforce the culture of evaluating public policies among public administrators and policymakers⁴⁹.

In this context, cities' role can be crucial for the empowerment of local communities. Impact, across all different dimensions⁵⁰, ultimately necessitates that local public authorities facilitate or enable the co-governance of urban infrastructure and resources⁵¹.

In essence, the principle of result and the partnership principle read in conjunction provide a foundation for multistakeholder partnerships focused on delivering broad positive impacts. By expanding the understanding of outcomes beyond traditional economic measures, these principles legitimise governance models that are also focused on societal value. Such partnerships' full potential is most effectively realized when public authorities are close to citizens and capable of coordinating diverse actors, as in cities. The following section examines the growing role of cities as key enablers of impact-driven governance models.

5. Impact-based multi-stakeholder partnerships: a new role for cities?

The enabling state requires cities and local institutions to play a crucial role in facilitating collaboration and catalysing resources and knowledge to empower local communities. They are actors close to the community and, therefore, able to address the population's needs effectively⁵². At the same time, the city can measure the impacts produced and engage in project evaluation. As mentioned above, this can influence the discretionary power of local administrations to spend public money and amplify its effects (or outcomes).

⁴⁹ C. Caruso, M. Tomasi, E. Cavasino, *Una introduzione al "Costituzionalismo numerico. Gli indicatori quantitativi tra norme, diritti e politiche pubbliche"*, 3 federalismi.it (2025).

⁵⁰ C. Iaione, *Just Sustainable Innovation*, cit. at 12, 7.

⁵¹ S.R. Foster, C. Iaione, *Co-cities: Innovative Transitions Toward Just and Self-sustaining Communities*, MIT Press (2022).

⁵² Ibid.

This assumption can be justified by the introduction of the principle of result (and trust⁵³) in the Italian Code of Public Contracts, in light of interpreting this reform based on the principle of sustainable innovation. Moreover, the interpretation of the new version of the principle of result can also be strengthened by the principle of self-organization by public administration (art. 7, Legislative Decree 31 March 2023, no. 36).

In fact, the Italian doctrine argued that the need to achieve good results is not only grounded in the principles of efficiency, effectiveness, and cost-effectiveness but also in the necessity of adapting the methods and content of administrative actions to the inevitably diverse needs expressed by the community and the various socio-economic and territorial contexts⁵⁴. Furthermore, addressing the need to critically analyse projects can shape the application of this principle and contribute to achieving better outcomes. For instance, the municipality of Reggio Emilia is taking action, as outlined in the work of its City Science Office⁵⁵ and the introduction of community balance⁵⁶.

The impact assessment will intersect with the public administration's power to certify and will extend beyond the certificate of having produced (formal) results. In other words, the implementation of the partnership principle through the creation of multi-stakeholder partnerships can help public policies shift from focusing on achieving outputs to achieving outcomes⁵⁷. In fact, these types of public policies are based on the circular nature of impact-assessment mechanisms, where identified limitations can

⁵³ The principle of trust in administrative action is intended to promote the freedom of assessment and the powers of initiative of the contracting authorities in order to prevent the phenomenon of defensive bureaucracy; see, M. Macchia, *The new public procurement code*, cit. at 50, 83.

⁵⁴ M. Cammelli, *Amministrazione di risultato*, in *Studi in onore di Giorgio Berti*, 650 (2005).

⁵⁵ C. Iaione, *Città, scienza e innovazione*, cit. at 14, 500.

⁵⁶ See Art. 80, *Regulation on Urban and Climate Justice Democracy and Justice in Reggio Emilia*.

⁵⁷ According to the art. 74 of the *Regulation on Urban and Climate Justice Democracy and Justice in Reggio Emilia* this reasoning will be embedded in the structure of the "Contratto d'impatto". The Outcome payer will pay the agreed amount based on the achievement of the impact objectives previously agreed upon by all parties. A similar structure is described within the Social Impact Bond, see C. Napolitano, *Il Social Impact Bond: uno strumento innovativo alla ricerca del suo diritto*, 3 Nuove Autonomie 568 (2018).

prompt modifications to the conditions of the partnerships to achieve better outcomes⁵⁸.

Either way, it is essential to emphasise that the Italian National Recovery and Resilience Plan (hereinafter referred to as the “NRRP”) has not given significant attention to the roles that cities play in implementing reforms. However, a relevant exception is the recognition of the possibility of establishing new partnerships within the territories of metropolitan cities.

Mission 5 of the Italian NRRP identifies as central objectives the strengthening of inclusive urbanization and the ability to plan and manage the territory in a participatory way⁵⁹. Integrated Urban Plans (see Mission 5, Component 2 of NRRP) are typically designed to make urban peripheries within metropolitan cities more sustainable, resilient, and inclusive, leveraging investments and reforms outlined in the recovery and resilience program. The NRRP has been described as a process where the legal framework placed greater emphasis on analyses of the impact of investment⁶⁰. Consequently, the greater impact produced by this new type of partnership will align with potential new trends in the legal order, from the European level to the national level⁶¹.

The structure of the Integrated Urban Plans has been designed to involve not only public-private bodies but also other actors in these multistakeholder partnerships. In fact, the mechanism designed by the NRRP allows for the involvement of social, not-for-profit, and R&I actors, thanks to the procedures outlined in the Code of the Third Sector (Legislative Decree No.

⁵⁸ See Consiglio di Stato, III, 27 May 2024, no. 4701, against an approach of a “static” result.

⁵⁹ A. Giusti, *La rigenerazione urbana come strategia di ripresa e resilienza*, 2 *Munus* 329 (2021).

⁶⁰ N. Lupo, *Il Piano Nazionale di Ripresa e Resilienza (PNRR) e alcune prospettive di ricerca per i costituzionalisti*, 1 *federalismi.it* (2022).

⁶¹ It is interesting to note that in Investment 2.3 (still Mission 5, Component 2 of NRRP): “*Programma Innovativo della Qualità dell’Abitare*” the selection procedure is based on the impact generated. The objective of this investment is to create new public housing structures to reduce housing difficulties, with particular attention to existing public assets, focusing primarily on green innovation and sustainability. The selection of funding proposals will be carried out using indicators designed to evaluate the environmental, social, cultural, urban-territorial, economic-financial, and technological-processual impact of the projects.

117 of July 3, 2017)⁶². Moreover, the possibility of borrowing from the European Investment Bank will enhance new types of partnerships. Once again, then, the need to evolve from the public-private partnership to a broader public-private-community partnership (*rectius* multistakeholder partnerships) will be further emphasized by the opportunity to benefit from new impact-based funds.

As a result, the contrast between competition (reflected in the procedures for establishing agreements between public administration and private businesses, as regulated by the Code of Public Contracts) and collaboration (embodied in the relationship between public administration and NGOs, as regulated by the Code of Third Sector) can be mitigated.

In fact, these two fields of law should not be considered in an antithetical manner or to be mutually exclusive. The balance between competition and solidarity has led to the establishment, if certain conditions are met, of balanced organizational solutions that promote a new economy based on a social perspective. This approach, which seeks to harmonize different areas of law, is reflected in the combination of Article 6 of the Code of Public Contracts, Article 55 of the Code of Third Sector, and Article 18 of Legislative Decree no. 201/2022 concerning public services of economic relevance.

As stated above, public-private-community partnerships should meet specific conditions⁶³. In particular, the public procedure to select different stakeholders must respect the principles of transparency, publicity, non-discrimination, equal treatment, universality, solidarity, and budgetary efficiency⁶⁴. Moreover, the doctrine summarizes specific criteria that allow for

⁶² According to the NRRP, Mission 5, Component 2, Integrated Urban Plans: “*Gli interventi potranno anche avvalersi della co-progettazione con il Terzo settore ai sensi dell’art. 55 decreto legislativo 3 luglio 2017 n.117 (Codice del Terzo settore, a norma dell’art.1, comma 2, lettera b) legge 6 giugno 2016, n.106) e la partecipazione di investimenti privati nella misura fino al 30 per cento*”.

⁶³ E. Caruso, *L’Amministrazione pubblica condivisa: terzo settore, contratti, servizi*, 14 PA Persona e Amministrazione 227 (2024); E. Zampetti, *Concorrenza e sussidiarietà orizzontale nella recente disciplina dei servizi pubblici locali di rilevanza economica*, 3 Dir. Soc. 511 (2024).

⁶⁴ See Art. 18, par. 2, of Legislative Decree no. 201/2022; ANAC Guidelines No. 17 titled ‘Indications on the awarding of social services,’ approved by the Authority’s Council with Resolution No. 382 of July 27, 2022.

applying these partnerships also in the implementation of local public services of economic relevance⁶⁵.

First of all, only specific subjects can be the object of these partnerships between public administration and NGOs. In this regard, the scope of activities is described in Article 5 of the Code of Third Sector and Article 18 of Legislative Decree no. 201/2022. They require that the projects concern services or interventions functionally linked or attributable to economically relevant local public services of general interest. Another essential element is the collaborative nature of the partnership, which excludes synallagmatic relations. This element can be inferred from Art. 18, par. 2, of Legislative Decree no. 201/2022⁶⁶. For instance, the collaborative nature can be presumed when NGOs provide their organizational capacity to the public administration, contribute their own economic and human resources to the realization of the service, and build a relationship of trust in the partnership's development⁶⁷.

In conclusion, the principle of result, which is the basis of the new Code of Public Contracts, as explained above, justifies this new type of partnership for managing local public services of general interest, when the collaboration represents added value for the production of positive externalities in the services rendered⁶⁸. Still, it is important to identify the actors needed to operationalize these

⁶⁵ E. Zampetti, *Concorrenza e sussidiarietà orizzontale nella recente disciplina dei servizi pubblici locali di rilevanza economica*, cit. at 66. He confirms that the implementation of these partnerships for the realization of a local public service of economic relevance cannot be excluded. See also S. Valaguzza, *Pubblici servizi, privativo, interessi generali e modelli concorrenti (anche alla luce del nuovo testo unico sui servizi pubblici locali)* 2 *Munus* 307 (2022).

⁶⁶ "The decision (...) must be justified (...) with specific reference to the existence of circumstances that, in the specific case, establish the genuinely collaborative nature of the relationship and the actual benefits that such a solution entails for achieving the objectives of universality, solidarity, and budgetary balance, in compliance with the principles of transparency, impartiality, participation, and equal treatment".

⁶⁷ E. Caruso, *L'Amministrazione pubblica condivisa*, cit. at 66, 231.

⁶⁸ See TAR. Liguria, I, 3 May 2024, no. 310. The Judge addressed the issue related to the relationship between the regulations contained in the Code of Public Contracts and the provisions on collaborative partnerships governed by the Code of Third Sector. In this case, the Public Administration did not justify as required the use of co-planning procedures; E. Frediani, *Il buon governo della co-progettazione*, 5 *Giorn. dir. amm.* 709 (2024).

partnerships and activate the necessary expertise within vulnerable communities.

Taken together, cities possess the institutional flexibility, proximity to communities, and experimental capacity needed to advance concrete practices of sustainable and just innovation. Through collaborative governance models and impact-based planning, cities can act as catalysts of multistakeholder partnerships that yield tangible positive societal impact. To illustrate this in practice, the following section presents the cases of Reggio Emilia and Okobi.

6. Reggio Emilia: a local laboratory for just sustainable innovation

Amongst the leading cities in Italy, Reggio Emilia deserves special mention as the first city to have formalised a Climate City Contract⁶⁹ through The Regulation on Democracy and Urban and Climate Justice⁷⁰. The Regulation consolidates values and methodologies to facilitate participation and collaboration among urban innovators from various stakeholder groups in accordance with the quintuple helix paradigm⁷¹. This positions Reggio Emilia as a normative and experimental space where democratic innovation can be tested and evaluated at an urban scale. The initiative is situated within the context of the European Horizon 2020 project EUARENAS, which addresses cities as arenas for political innovation in the enhancement of deliberative and participatory democracy, and the Regulation was developed

⁶⁹ Climate City Contracts (CCCs) are a key instrument of the European Union's Mission for 100 Climate-Neutral and Smart Cities by 2030. They are co-created documents that outline a city's commitments, strategies, and investment plans for achieving climate neutrality. Each CCC is developed collaboratively with local stakeholders, including citizens, businesses, and research institutions, and serves as both a governance tool and a roadmap for climate action. For more information, see NetZeroCities, "Climate City Contracts," accessed March 31, 2025, <https://netzerocities.app/QR-CCC>.

⁷⁰ This regulation compiles and updates all antecedent regulations pertaining to civic participation.

⁷¹ The Quintuple Helix model evolved from the Triple Helix model, which emphasized university-industry-government interactions. See C. Iaione, *The CO-City: Sharing, Collaborating, Cooperating, and Commoning in the City*, 75 *American Journal of Economics and Sociology* (2016).

through a collaborative effort involving the Municipality of Reggio Emilia, the Department of Law at Luiss Guido Carli University, the Laboratory for the Governance of Commons (LabGov ETS), and the City Science Office⁷² (CSO) of Reggio Emilia.

The city has a long history of sustainable and environmentally friendly urban initiatives that prioritize civic engagement. Since 2015, the *Quartiere Bene Comune* program has acted as a foundation for a collaborative urban environment. In 2016, the Reggio Collaboratory was established in collaboration with the University of Modena and Reggio Emilia, as well as Kilowatt. This project serves as a centre for incubating and accelerating social and technological innovations. The municipality has also conducted numerous open labs with citizens and created a Smart City Memorandum of Understanding to steer digital and innovative progress in the area.

With the 2022 Regulation, which alters Reggio Emilia's institutional legal structure, Reggio Emilia seeks to create a new governance framework that emphasizes participation and co-governance in all stages of public policy. The objective is to achieve participatory administrative planning that meets actual territorial needs and fosters a sustainable, just and inclusive model of urban development. In accordance with this, the city was divided into nine areas, each represented by a Council (the “*Consulte*”). These Councils gather input on local needs and challenges before engaging in discussions and direct collaboration with the Municipality to formulate public policies that address local needs and issues. The interaction between the Councils and Municipal Services culminates in an Area Pact, a multi-stakeholder Program Agreement that outlines the intervention guidelines to be shared

⁷² The City Science Initiative is a program established within the Joint Research Centre of the European Commission, designed to connect cities and urban contexts with science—primarily through partnerships with universities, via a network of City Science Offices (CSOs). These offices vary in configuration depending on the city. As Professor Iaione explains, “a handful of European municipalities are experimenting with an organizational innovation: City Science Offices (CSOs). While CSOs are not a public-private-people partnership themselves, they are an organizational innovation that can create multi-actor partnerships, or they can be part of one. C. Iaione, *Urban Sustainable Development* cit. at 32.

among the area stakeholders, which then becomes part of the Single Programming Document.⁷³

Furthermore, the Regulation improves the relationship between public administration and knowledge institutions, which has also been strengthened on various fronts. In 2022, the CSO was established as an entity dedicated to applied research in public administration. This office fosters an environment where researchers collaborate closely with councilors, managers, and officials to develop innovative policies. Moreover, it facilitates collaboration with various stakeholders, including social, economic, civic, and scientific actors from Reggio Emilia, Italy.⁷⁴

A prime illustration of this collaborative method can be seen in the project at Villa Levi, a historic estate located in the Rivalta region of Reggio Emilia. Under the “Qua. Il quartiere bene comune” initiative, Villa Levi has been transformed into a venue for civic experimentation and community co-governance. This project unites residents, organizations, universities, and local authorities to reclaim and re-envision the use of the estate through collective management efforts. Activities at Villa Levi encompass environmental education, cultural gatherings, and regenerative uses of public spaces – all aimed at promoting social inclusion and ecological transition.⁷⁵

An additional initiative within the framework is the *Wi-Fi di Comunità* project⁷⁶, which strengthens Reggio Emilia’s dedication to eliminating the digital divide through community-driven collaboration. Operating in various neighbourhoods, this project entails the collaborative design and management of community Wi-Fi networks by residents, local organizations, and technical partners. The aim is to guarantee fair digital access, especially in

⁷³ M. Bernardi, A. Aquili, *Beyond ‘Climate-Neutral and Smart Cities’: Reflections on Strategies and Governance Models*, 17 *Fuori Luogo. Rivista Di Sociologia Del Territorio, Turismo, Tecnologia* 30 (2023).

⁷⁴ F. Berni, L. De Franco, N. Levi, *Il City Science Office di Reggio Emilia: percorsi di ricerca e innovazione in campo energetico e sociale*, 4 *Dir. Soc.* 873 (2022).

⁷⁵ For more information, see <https://www.comune.reggioemilia.it/argomenti/citta-collaborativa/i-progetti/qua-il-quartiere-bene-comune/i-progetti-attivi-nei-territori/villa-levi>.

⁷⁶ For more information see, <https://www.comune.reggioemilia.it/argomenti/citta-collaborativa/i-progetti/qua-il-quartiere-bene-comune/i-progetti-attivi-nei-territori/wi-fi-di-comunita>.

regions with limited connectivity and social vulnerability. Through this collaborative governance approach, the Municipality empowers citizens not merely as end-users but as engaged co-creators of the technological infrastructure.

Reggio Emilia has also introduced NINA, a community-based electric car-sharing service for residents of Centro Storico and Crocetta. Developed through a co-design process with citizens, participants adhere to a usage regulation and share vehicles via an app, paying only for usage time. The service features full-electric cars with dedicated charging stations, minimizing environmental impact and reducing costs compared to car ownership. Supported by local associations and private partners, the project is part of a citizenship agreement approved by the municipality. The pilot aims to evaluate the service's feasibility for broader implementation, promoting sustainable mobility and reducing urban parking issues.⁷⁷

In conclusion, the initiatives undertaken in Reggio Emilia, exemplify the power of collaborative governance in fostering community urban innovation and sustainable development. By engaging residents, local organizations, and authorities in the co-management of resources and services, these projects not only address social and environmental challenges but also empower citizens as active participants in shaping their community, reflecting a holistic approach to urban development and a widened scope and understanding of the partnership principle.

As a result, new ways of measuring impact and evaluating project success is needed. As communities undertake various initiatives aimed at promoting social inclusion, ecological sustainability, and technological advancement, it is vital to create strong frameworks for assessing the effectiveness of these efforts. Traditional success metrics, often focused solely on quantitative outputs, are no longer adequate. Instead, a more comprehensive approach is required.

⁷⁷ For more information see, <https://www.comune.re.it/argomenti/mobilita/progetti/car-sharing-diquartiere>.

7. Multi-stakeholder partnerships in international cooperation: lessons learned from the Global South. The Okobi initiative

Universities and knowledge institutions are always at the foundation of capacity-building processes and community empowerment, including through citizen science initiatives, as recognized by the African Union - European Union (hereinafter "AU-EU") Innovation Agenda⁷⁸.

The European Union's approach to Research and Innovation as a strategy for international cooperation appears to boost initiatives aimed at enhancing the potential contributions of entrepreneurial activities by vulnerable or affected citizens and communities. Even in this case, there is a clear push toward the development of multistakeholder partnerships, emphasizing the inclusion of not only public and private actors but also local communities. This approach recognizes the value of diverse perspectives and resources, enabling collaborative efforts to address complex issues.

One Kindred One Business Initiative (hereinafter "Okobi"), an socio-economic development program under the agenda of the Imo State Government in southeastern Nigeria, represents an initiative aligned with the direction set by the AU-EU Agenda. Based on the research *Africapitalism*⁷⁹, Okobi represents a model for sustainable growth through group/collective owned and community-led ventures.

Okobi represents a business initiative where a group of people come together to set up a business venture that is lucrative, sustainable and profitable. These businesses will be owned, controlled and managed by themselves. It is aimed at grassroots empowerment from communities to create employment through structured business ventures run and operated in the form of cooperatives in Imo State. Several criteria must be met to be qualified as an Okobi business. Firstly, the business must be collectively owned by the kindred, ensuring group ownership. Secondly, it should aim for financial sustainability and address the local community's social and economic needs (profit-oriented and

⁷⁸ The African Union - European Union Innovation Agenda, 16.

⁷⁹ K. Amaeshi, U. Idemudia, *Africapitalism: A Management Idea for Business in Africa?*, Africa Journal of Management (2015).

employment generation). Finally, all businesses must be legally registered to ensure legitimacy and be based in Imo State. It leverages traditional Igbo socio-economic structures, known as Umunna or kindred systems, to promote collective business ownership. An Okobi business takes shape when individuals, either family, relatives, kinsmen, or community members, unite to explore business ideas tailored to address local needs⁸⁰ The businesses are solely set up, owned and managed by groups of people with similar interests, They are also able to address their issues of high level of unemployment, underemployment and increase growth in population, plus heavy reliance on the government, this initiative is very vital as it teaches people how to fish rather than giving them fish.

Since its adoption in 2023 there have been over 450 registered businesses with over 19,000 members across board. The initiative has showed great scalability potentials and it aligns with the quintuple model by showing cross sector collaboration with government⁸¹, academia⁸², civil society, and natural environment through the people. Okobi reflects the Africapitalism ethos by combining profit orientation with collective ownership and community empowerment.

Still, the process of capacity building requires the presence of knowledge institutions able to empower communities, even more in weak institutional contexts⁸³. Initiatives like Okobi are based on the assumption to foster prosperity through community-based enterprises⁸⁴. In fact, vulnerable or affected communities lack technical skills and financial resources. They need not only economic tools that can enable their actions, as Okobi initiatives, but also institutional support programs to equip themselves with the necessary technical skills. In this context, the role of the

⁸⁰ For more information, see <https://imostatecea.ng/okobi/>.

⁸¹ For more information, see <https://punchng.com/imo-unveils-community-business-ownership-scheme/>.

⁸² For more information, see The New Institute, *The Okobi model: An indigenous approach to collective prosperity*, (2024) available at <https://thenew.institute/en/media/the-okobi-model>.

⁸³ K. Amaeshi and U. Idemudia, *Africapitalism*, cit. at 82, 5.

⁸⁴ In fact, one of the pillars of its founding idea, Africapitalism, is the promotion of a form of entrepreneurship that strives to create financial and social wealth for all stakeholders, not just the shareholders. See K. Amaeshi and U. Idemudia, *Africapitalism*, cit. at 82, 8.

universities, as partners with public authorities and private economic operators in benefit-sharing agreements, is crucial to emphasize the entrepreneurial collective action of vulnerable and affected citizens and communities⁸⁵.

In conclusion, the necessity to create a new quality of sustainable innovation, thanks to the creation of partnerships that will empower local communities, can also represent a new incentive to strengthen international cooperation through the creation of a joint capacity-building program.

8. Challenges

Traditionally, the city has always been a space where diverse actors and communities coexist, extending far beyond just the residents. It serves as a dynamic hub for workers, visitors, students, and various social groups who contribute to its identity and vitality. The right to inclusion and participation in the city's decision-making processes and shared spaces should therefore not be limited to those who reside within its boundaries but must encompass all those who wish to play an active role. This approach fosters a more inclusive, equitable, and representative urban environment and must be enshrined by local institutions.

The institutional role of units of coordination for the activation of multistakeholder partnerships at the local level, such as CSOs, holds significant potential for the empowerment (and the activation of a capacity-building program) of local communities. By supporting such programs, in light of new trends of EU policies analysed, these units can catalyse sustainable innovation rooted in collective or group entrepreneurship within local and vulnerable communities. Their involvement could serve as a critical driver for the implementation of a just and democratic sustainable innovation, also thanks to the sharing of good practices and in the context of a stronger international cooperation between the European Union and the African Union.

⁸⁵Africapitalism requires supporting governance mechanisms to change the entrepreneurial mind-set. Specifically, it requires the Africa-consciousness. In other words, it is an expression to identify the interests of Africa and Africans that should be at the epicentre of decisions. See K. Amaeshi and U. Idemudia, *Africapitalism*, cit. at 82, 11.

These offices, by bridging local governments, academia, local economies and communities, have the capacity to transform entrepreneurial efforts into platforms for social empowerment, as the Okobi initiative is doing. Of course, collaboration is the crucial success factor of this model.

9. Conclusion

A new quality of sustainable innovation requires cities to spread innovation (principle of sustainable innovation) among the local communities (principle of partnership) through a benefit-sharing mechanism (i.e. multidimensional impacts). In this way, it is possible to achieve a Just Transition. Local institutions must enable local communities, with the possibility to take a step back after having done it. The city itself or technical units with specific expertise in these fields should solely measure the (multidimensional) impact produced at the local level to evaluate the initiative (the introduction of the principle of result into the Italian legal order can support this activity). This aligns with the circular nature of impact-assessment mechanisms, where identified limitations can prompt modifications to partnership conditions to achieve better outcomes.

Future research should investigate how these units can enhance innovation partnerships by leveraging new economic (and legal) tools⁸⁶ or repurposing existing ones for novel applications to guarantee benefit-sharing mechanisms.

Moreover, collaboration between new economic initiatives, such as Okobi in Imo State, and innovative institutional frameworks within cities, like CSO in Reggio Emilia, could shift the paradigm from a "knowledge triangle"⁸⁷ (academia, industry, and government) to a "knowledge square" by incorporating citizens as

⁸⁶ See Art. 80, c. 5, *Regulation on Urban and Climate Justice Democracy and Justice in Reggio Emilia*.

⁸⁷ EG. Carayannis, DFJ. Campbell, *Triple Helix, Quadruple Helix and Quintuple Helix and how do knowledge, innovation and the environment relate to each other? A proposed framework for a trans-disciplinary analysis of sustainable development and social ecology*, 1 *International Journal of Social Ecology and Sustainable Development* (2010); C. Iaione, *The CO-City: Sharing, Collaborating, Cooperating*, cit. at 74.

an integral actor⁸⁸. This transformation has the potential to democratize sustainable innovation and empower local and marginalized communities not only in West and East African nations or Southern and Eastern European Union member states but also in the marginalized outskirts of major metropolises in the Global North.

By fostering multistakeholder partnerships, units at city level can thus play a pivotal role in aligning innovation with the broader goals of social equity, environmental sustainability and economic inclusivity. Such efforts can redefine the scope of innovation, making it more participatory and accessible, and therefore just.

⁸⁸ In its communication on achieving the European Education Area by 2025, the European Commission highlighted the pivotal role of higher education institutions in moving beyond the traditional knowledge triangle (education, research, and innovation) to embrace the "knowledge square," which adds "service to society" as a key component. Universities are expected to integrate the transfer of research and innovation into society and align teaching with societal engagement and challenges, making these elements integral to their mission and linking all aspects of their work. To support this vision, the Commission has encouraged the establishment of alliances among higher education institutions to foster systemic, structural, and sustainable collaboration. These alliances aim to explore innovative models and approaches, dismantle barriers between the four pillars of the knowledge square, and maximize their benefits for and with society. See C. Iaione, *Just Sustainable Innovation*, cit. at 12, 44.

JUST, DEMOCRATIC, INNOVATIVE AND SUSTAINABLE
INDUSTRIAL PLANNING (JUDISIP): INVESTING ON
COUNTERVAILING ECONOMIC AND INDUSTRIAL POWER

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Abstract

This article addresses the evolving role of the State in the economy, in the context of the renewed prominence of industrial policy. A growing awareness, in fact, is emerging that global challenges and the crises of our time call into question the very role of the State and demand outputs capable of steering economic dynamics toward socially desirable objectives. This contribution focuses on this ongoing transformation and seeks to identify the legal, economic, and financial toolkit for the revival of the planning State. It argues that this new trajectory must overcome the current neglect of societal and territorial well-being in economic planning, instead aiming at the generation of multidimensional impacts and enabling the active participation of communities in identifying needs, shaping solutions, and exercising stewardship over the implementation of economic initiatives.

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1. An Industrial Policy for the Permacrisis (or Polycrisis) Age: the return of planning?

The climate crisis represents one of the most pressing economic and institutional challenges of our era. Drawing on scientific evidence, it has been recently highlighted how the current situation represents “a code red for humanity”, and how the current trend is for crises and global risks to become the norm rather than the exception, questioning policy makers on which governance formulas are most suitable for providing just and adaptive responses¹. However, the climate crisis is not the only factor that is challenging governments and markets. Other crises call into question industrial models of production and consumption of goods and services, the financial markets and the role of the public sector in governing the economy. The COVID-19 pandemic crisis has brought attention to the risk factors for human health in an interconnected and globalized world, confirming the need for a paradigm shift in public health management towards a holistic

¹ C. Iaione, L. Kappler, *Governing the Extreme: Self-Sustaining diverse Co-Cities for Just Adaption*, 6 Riv. Giur. Ed. 373 (2023).

model inspired by the one health and planetary health approaches. Most recently, concerns about war scenarios have arisen throughout the world, especially due to the outbreak of war in Ukraine and the expansion of the conflicts in the Middle East.

These crises, in turn, generate or aggravate other crises, such as humanitarian crises, migration crises, raw materials supply crises, and inflation crises. It has been argued that we have entered an era of permacrises or polycrises².

In this scenario, the model of a merely regulatory State³, limited to defining a level playing field among economic operators, becomes rapidly obsolete. Competition and freedom of enterprise, themselves, do not guarantee that the outcomes achieved by the free play of the market and financial dynamics are socially desirable and moreover that certain public aims are met within a socially desirable timeframe. This is especially true, as it is recognized by economic literature, in the case of imperfect information, incomplete markets and, more in general, when perfect competition is not reached: outcomes can be pareto inferior and thus not

² The term permacrisis was coined by S.S. Cohen, C. Goldfinger, *From Permacrisis to Real Crisis in French Social Security: The Limits to Normal Politics*, in L.N. Lindberg, R. Alford, C. Crouch, C. Offe (eds.), *Stress and Contradiction in Modern Capitalism: Public Policy and the Theory of the State* (1975) according to whom “the permacrisis of social security is the result of the impasse between the imperatives of the economic system and the necessities of the political system which mediates economically imperative reform”. The neologism was later used by the President of the European Central Bank Christine Lagarde in her speech at the sixth annual conference of the European Systemic Risk Board (8 December 2022). See C. Lagarde, *Macprudential policy in Europe: building resilience in a challenging environment* (2022); the expression was also used by the World Health Organization Regional Director for Europe Hans Henri P. Kluge in his statement *The European Region is in a “permacrisis” that stretches well beyond the pandemic, climate change and war* (2022). More recently see the policy plan and strategy devised by G. Brown, M. El-Erian, M. Spence, R. Lidow, *Permacrisis: A plan to fix a fractured world* (2023). For the polycrisis concept see E. Morin, A.B. Kerne, *Terre-Patrie* (1993); the term was used by former President of the European Commission in his speech at the Annual General Meeting of the Hellenic Federation of Enterprises (SEV) on 21 June 2016, and then in his speech at the opening plenary session of the Ideas Lab 2018 "Europe - Back on Track" of the Centre for European Policy Studies on 22 February 2018; on polycrisis, see also the interview given by the historian A. Tooze in relation to the World Economic Forum's Global Risks Report (2023).

³ See G. Majone, *The rise of the regulatory state in Europe*, 17 *West Eur. Politics* 77 (1994).

optimal.⁴ In the case of environmental issues, the market equilibrium is far from accounting environmental and social costs associated with pollution or other distortions. As a result, the State should intervene with corrective policies, incentives and regulation to align market outcomes with social and environmental goals. A useful and shared point of reference has been the sustainable development goals of the 2030 Agenda, representing a global political priority for quite a while with no clear success. The European Union – for instance – has adopted significant economic plans aimed at orienting the economy toward environmentally desirable outcomes⁵. At a strategic level, the European Commission (2019-2023) adopted the European Green Deal⁶, with which it intended to incentivize the transformation of the European economy and industry towards a sustainable future, primarily on the environmental front, in pursuit of climate neutrality by 2050. Furthermore, within the framework of European Union law, particular relevance must be attributed to the Taxonomy Regulation⁷, which aims to combat greenwashing in the financial sector by providing uniform and consistent criteria for assessing the sustainability of the economic activities underlying financial products. Equally significant is the Corporate Sustainability Reporting Directive (CSRD)⁸, aimed at improving transparency, accountability, and sustainability across the corporate sector by modernizing sustainability reporting rules and expanding their scope of application, mandating the consideration of environmental, social, and governance (ESG) factors. These are two notable examples of public authorities (specifically, the European Union) intervening in the economy with the objective of steering

⁴ J.E. Stiglitz, *The Revolution of Information Economics: The Past and the Future*, NBER Working Paper 23780 (2017).

⁵ On the topic, see, in particular, M. Mazzucato, *A collective response to our global challenges: a common good and 'market-shaping' approach*, 2 UCL I.I.P.P. (2023); M. Mazzucato, M. McPherson, *The Green New Deal: A bold mission-oriented approach*, IIPP Pol. Brief (2018); R. Kattel, M. Mazzucato, *Mission-oriented innovation policy and dynamic capabilities in the public sector*, *Industrial and Corporate Change*, 787 (2018); M. Mazzucato, *Mission-oriented innovation policies: challenges and opportunities*, 27 *Industrial and Corp. Change* 803 (2018).

⁶ See Communication from the Commission COM(2019) 640 final of 11.12.2019.

⁷ Regulation (EU) 2020/852.

⁸ Directive (EU) 2022/2464.

corporate performance toward desirable and measurable outcomes in terms of sustainability.

The revival of the public sector economic planning and entrepreneurial role has not been limited to environmental matters. In response to the COVID crisis, then, the Next Generation EU (NGEU)⁹ has financed national recovery and resilience plans that include reforms and investments in a variety of economic sectors, fostering ecological and digital transitions. Also noteworthy are the national integrated energy and climate plans that Member States must adopt¹⁰ to define their contribution to the pursuit of the binding climate neutrality and energy transition objectives set by the EU Climate Law¹¹ and the Renewable Energy Directive (II)¹², also in light of the RepowerEU Plan adopted in response to the energy crisis resulting from the conflict in Ukraine¹³. More recently, another important EU policy initiative, the RearmEU - Readiness 2030 Plan¹⁴, adopted by the current EU Commission, envisions a strong future economic orientation toward strengthening military security, including the development and deployment of dual-use technologies.

The process of redefining public action in the economy is finally underway in North America too, in particular in the United States, and it is well accounted for by the literature that calls for a return to industrial policy, understood as “*the deliberate attempt to shape different sectors of the economy to meet public aims*”¹⁵.

However, the crises of recent years and the public or private responses seem to demonstrate that the dynamics of globalization have not led to a global socioeconomic development aligned with sustainability and peaceful coexistence among peoples. On the contrary, each crisis demonstrates a tendency to worsen pre-existing inequalities. Consequently, it becomes crucial to rethink the kind of intervention the public sector takes in economic governance, so that economic initiatives, both public and private,

⁹ See Communication from the Commission COM(2025) 310 final of 4.6.2025.

¹⁰ According to Regulation (EU) 2018/1999.

¹¹ Regulation (EU) 2021/1119.

¹² Directive (EU) 2018/2001, modified by Directive (EU) 2023/2413.

¹³ See Communication from the Commission COM(2022) 230 final of 18.5.2022.

¹⁴ See the Commission’s White Paper for European Defence – Readiness 2030.

¹⁵ See A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, 8 Harv. L. & P. Rev. 279 (2024).

can be truly coordinated and oriented towards socially beneficial goals.

In short, a trend is emerging (at least in the North-Western world) whereby the public sector is (once again) orienting markets towards public interest goals, either through direct intervention or through the economic planning of various economic sectors. The rediscovered role of the State and public administrations in the purposeful direction of economic dynamics necessitates a reflection on the primary public objectives to be pursued, which today are to some extent different from the past.

However, this new perspective is not only characterized by a proactive role of the planning State¹⁶, but also by a new sensitivity towards the component of participatory democracy, especially regarding local communities, adopting a new territorial governance perspective.

Thus, comes to an end the historical phase of the market-oriented approaches, marked by the period of global political integration that took place from the 1980s onwards, under the theoretical aegis of neoliberal theories of the minimalist State, in which the latter has the minimal task of repairing the so-called market failures.

This critique to the minimalist State takes shape and gains strength as historical evidence, using as a demonstration that a non-negligible number of innovations such as Internet, Biotechnology, Green Technologies, Aerospace Sector, often arise from the entrepreneurial courage of the State, which intervenes in high risk sectors such as no entrepreneur, in the Schumpeterian sense of the term – even if endowed with uncommon capabilities – would have ventured into them¹⁷.

The intermediate phase of this theoretical transition is marked and supported by a growing attention and sensibility towards climate change, sustainability and demographic challenges and finally thanks to a new perception of public

¹⁶ See A. Sandulli, *Economic Planning and Administrative Transformations in the NGEU and NRRP: A Paradigm Shift*, 14 Italian J. Pub. L. 3 (2022).

¹⁷ See M. Mazzucato, *The Entrepreneurial State: Debunking Private vs. Public Sector Myths* (2013).

programming, under the name of “*Mission Oriented Innovation Policy*” (MOIP)¹⁸ or “*Transformative Innovation Policies*”¹⁹.

This finalistic orientation, at the European level, has been associated with a growing awareness of the functionality of innovation to meet sustainability goals. At the national level, instead, several member States, including Italy, have adopted legislation in strategic sectors, such as aerospace, which includes public strategic and programmatic documents setting out the sector's development priorities and the resources to be allocated to meet innovation and sustainability needs²⁰.

In this regard, the literature building on Mazzucato’s critique has highlighted how in the Green Deal and especially in the Horizon Europe regulation no clear connection emerges between sustainability, innovation, on one side, and democracy and social justice, on the other side. In this regard, the concept of “Just Sustainable Innovation” has been used to indicate the need to integrate the public planning aimed at promoting innovation for sustainability with the social and governance dimension.

The starting point of this critique lies in the fact that entrepreneurial State actions can be often perceived as top-down approaches, equal in time and space. A careful and critical reading of the economic history and institutional economics literature confirms a well-established stylized fact on which most economists agree: the degree and intensity of economic growth and the effectiveness of public policies strongly depend upon the institutions²¹. The idea of “no one-size-fits-all” reflect the theoretical conclusion reached by institutional economists that the effect of the same policy intervention can be different geographically and scalarly, according to the types of institutions, their capacity, and their quality in the areas where the intervention

¹⁸ See M. Mazzucato, *Mission-Oriented innovation policy: challenges and opportunities*, UCL I.I.P.P. (2017).

¹⁹ See J. Schot, W. E. Steinmueller, *Three frames for innovation policy: R&D, Systems of innovation and transformative change*, 47 *Research Policy* (2018).

²⁰ See Italian Law No. 89/2025, in particular article 22.

²¹ See D. Acemoglu, S. Johnson, J.A. Robinson, *Institutions as the Fundamental Cause of Long-Run Growth*, *Handbook of Economic Growth*, 385 (2005); R. Brown, *Mission-oriented or mission adrift? A critical examination of mission-oriented innovation policies*, 29 (4) *Eur. Plan. Stud.* 739 (2021).

takes place²². The concept of “*place-dependent conditions*”, developed by the last wave of researchers, refers specifically to the idea presented in the previous paragraphs: the same policy issue or innovation challenge may be perceived differently with respect to the geographical and institutional context, introducing the idea of “*place-blind policies*” that characterize top-down entrepreneur State activities²³.

The new sensibility of the latest industrial policy theories highlights a sharp break between mission-oriented, prescriptive, and directional policies on the one hand, and the paradigm of place-based policies on the other, in which the key concept is the “*embeddedness*” in the local territorial context. This approach allows policy interventions to remain flexible, thereby better capturing the nuances of local institutions and citizens’ needs.

These reflections prompt a consideration of the need to account for current and potential future social and territorial inequalities when forging industrial policies aimed at addressing the multiple and endemic crises of our time, while also acknowledging the needs of the affected populations and identifying context-appropriate solutions.

In addition, on the basis of the EU law and policy principle of just sustainable innovation the establishment of forms of democratic community-based governance for the implementation of the planned initiatives and measures has been identified as one of the most effective measures to tackle inequalities²⁴. The legislation on energy communities and the Common Provisions Regulation, the Just Transition Mechanism and the Social Climate Fund, seem to represent the only examples of a democratic planning for just sustainable innovation which specifically targets inequalities and uses community-led governance mechanisms to

²² See E. Uyarra, M. M. Bugge, L. Coenen, K. Flanagan, I. Wanzenböck, *Geographies of mission-oriented innovation policy*, 56 *Environmental Innovation and Societal Transitions* (2025).

²³ See E. Uyarra, I. Wanzenböck, K. Flanagan, *The spatial and scalar implications of missions: challenges and opportunities for policy*, J. Edler, M. Matt, W. Polt, M. Weber (eds.), *Transformative Mission-Oriented Innovation Policies* (2025).

²⁴ C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, 1 *Munus* 1 (2024).

overcome them²⁵. Nonetheless, these instruments have a limited scope and do not appear to engage meaningfully with the Cohesion Policy, making it difficult to assert the existence of a radical paradigm shift in the formulation of the EU's economic policies aimed at generating territorial impacts. Moreover, the specifically industrial dimension is not adequately addressed by these instruments, which seem to endorse an artificial separation and disconnection between industrial development and the capacity to steer transitions and economic growth towards more equitable and just scenarios, in line with the needs of the populations affected by such changes.

In brief, the risk persists that strategic economic planning documents at the national or supranational level may suffer from a top-down approach and may be disconnected from societal needs, which may require specific solutions for different contexts. Such policies may pursue a primary public interest (e.g., ecological transition, rearmament), although neglecting the social aspect of sustainability, if not exacerbating pre-existing inequalities or creating new ones.

Thus, for example, it has been noted that the European Green Deal, despite promising to leave no one behind, does not actually lead to eliminating or reducing inequalities in terms of economic wealth and power between social groups and regions, failing to adequately address the issue of inequalities and providing inadequate tools to deal with the social implications of the transition²⁶; likewise, it was found that the Green Deal is more in line with the sustainable development goals relating to clean energy, climate action, and sustainable consumption and production, but presents a significant “underrepresentation in areas related to social issues such as inequalities, poverty, hunger,

²⁵ This topic argument has been addressed in detail by C. Iaione, *Just Sustainable Innovation*, cit. at 24, 1. On energy communities see, in particular, C. Iaione, E. De Nictolis, *Le comunità energetiche tra democrazia energetica e comunanza d'interessi*, 4 Dir. e Soc. 589 (2022); A. Persico, *Le comunità energetiche e il ruolo sussidiario delle pubbliche amministrazioni territoriali*, 2 Amb. Dir. (2022).

²⁶ See. K. Arabadjieva, *The missing link between social inequalities and the European Green Deal narrative* (2022). In particular, on the gap between the ambition of the Just Transition Fund and its practical application see V. Cirillo, M. Divella, L. Greco, E. Ferrulli, *Europe's Green Transition: A Fund Under Pressure* (2025).

health, education, gender equality, decent work, and peace”²⁷, contributing to the creation of global injustice due to the extractive practices necessary for the green transition which are carried out above all to the detriment of the global south²⁸. Furthermore, a top-down approach of the European Green Deal has been denounced, which would devalue the role of the communities affected by the transition processes²⁹, producing a significant increase in energy costs, especially to the detriment of the middle classes³⁰.

In 2025 the European Commission adopted the ReArm Europe Plan/Readiness 2030, which essentially lays out the new political economy approach of the EU for the next policy cycle. It will inevitably inform all the EU policies and in particular the new industrial strategy of the EU. This time the EU Commission blatantly admits undervaluing the issue of territorial and social inequalities by suggesting the redirection of the national allocations of cohesion funds towards ‘defence-related projects, such as infrastructure, research and development’ and reorienting the EIB investments towards dual use items (i.e. services and technologies which ‘serve both civilian and military purposes’; ‘a project must show at least one current or potential civilian application’ to qualify as dual-use). This new policy mantra risks posing a further risk of contributing to the exacerbation of pre-existing social and territorial inequalities to the advantage of very few economic operators in specific sectors and regions of the EU.

To ensure a proper consideration of the social implications of this new breed of industrial policies and public investments, it appears necessary to develop accurate evaluation methodologies and tools, to adequately select those most appropriate for pursuing at the same time the three strategic goals that have dominated the EU policy cycles in the last decades: the original goal of market

²⁷ P. Koundouri, A. Alamanos, A. Plataniotis, C. Stavridis, K. Perifanos, S. Devves, *Assessing the sustainability of the European Green Deal and its interlinkages with the SDGs*, 3 *npj Clim. Action* 23 (2024).

²⁸ H. da Silva Hyldmo, S. Angen Rye, D. Vela-Almeida, *A globally just and inclusive transition? Questioning policy representations of the European Green Deal*, 89 *Global Environmental Change*, (2024).

²⁹ E. K. Gray, R. McArdle, *Communities and the European Green Deal: opening ‘sites of struggle’ for a democratic energy transition*, 47 *Journal of European Integration* 193 (2025).

³⁰ M. Carnegie LaBelle, T. Szép, *Europe's Green Deal: Is the Middle Class Left Behind?*, 61 *Journ. of Pub. Gov.* 3 (2022).

integrity and competitiveness, the more recent quest for climate action through the dismantlement of fossil-based industries, and the new goal of strategic autonomy through more defense spending.

Social and territorial justice has always been in the background, and it never gained the stage as a strategic dominant goal. But none of the above dominant strategic goals without jobs creation and reduction of social and territorial divides will guarantee the effectiveness of EU public policies. Also, all these policy variables do not adequately capture the added value of many investments if taken in isolation.

In this sense, it is necessary to adequately embed directionality and conditionality in public investments, understood by Borrás and Edquist as “the focus on problem identification with the intention of contributing actively to the transformation of socio-technical and innovation systems in a holistic way”³¹. In other words, it is necessary to develop techniques for setting, monitoring, and measuring multidimensional impacts for public investments in the economy, in view of assessing their positive benefits for local areas based on the specific needs of the affected communities.

Only in this way industrial and development policies can indeed achieve at the same time critical technological advancement, increased competitiveness, environmental and social sustainability, avoiding also top-down solutions that apply identical solutions to different contexts. From this perspective, it may be useful to examine and draw inspiration from the practices of long-term investors, such as the European Investment Bank and the African Development Bank (AfDB). Since decades now these investors select projects based on adaptive solutions and long-term, multidimensional evaluation that assess impacts not only in terms of economic return but also in terms of their ability to meet specific

³¹ S. Borrás, C. Edquist, *Holistic innovation policy: Theoretical foundations, policy problems, and instrument choices* (2019). On the topic of directionality in relation to the European Union's investments in research and innovation, see the study published by the European Commission – Directorate-General for Research and Innovation, entitled “Directionality in R&I policy: a Methodology to Assess Practices in the EU Member States and associated Countries” (2024). On the role of conditionality as a tool of directionality see F. Molica, *Regional innovation policies and directionality: exploring the role of conditionality*, 32(8) European Planning Studies 1653-70 (2024).

needs, both economic and social, and more generally, the well-being of the affected population.

Given this premise, this paper will formulate, in Section 2, the hypothesis of a democratic industrial planning for a just sustainable innovation to orient public intervention in the economy towards the production of positive multidimensional impacts and externalities in terms of the creation of added value for society and the markets. Section 3 further elaborates the theoretical foundations of the JuDISIP (Just Democratic Industrial Sustainable Innovation Planning) framework, with a particular focus on its core design principle: economic democratization. It explores various forms of collective economic action and economic countervailing power, arguing for a shift beyond traditional public-private partnerships towards a multi-stakeholder governance approach. Section 4 introduces the policy tools that a JuDISIP shall invest on: in particular, sub-section 4.1 outlines the contractual and consensual tools available to public authorities to concretely stimulate the use of public resources to generate added social value; sub-section 4.2. advances the discussion on how to finance multiple impacts and forges the Just Sustainable Innovations and Infrastructure Impact Investment Assessment tool (JuSIIIA), a metric designed to assess the value for society, the impacts in the context of economic planning and public investment selection. Section 5 presents several case studies from the practice of long-term public investors which are investing on multidimensional and multi-stakeholder initiatives and projects. In Section 6 results and shortcomings of the analysis will be discussed, focusing on the constitutive elements and current limitations of the emerging new planning State. Finally, Section 7 offers concluding remarks and considerations for further policy development and implementation.

2. Just, Democratic, Innovative, Sustainable Industrial Planning (JuDISIP)

Kapczynski and Michaels have recently highlighted how the topic of industrial policy has returned to the forefront, within a more general rethinking of the role of the State in the economy³².

³² A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, cit. at 15.

According to these authors, industrial policy does not simply indicate a renewed role of the State in the economy, nor is it limited to the public conditioning on the processes of production of goods and services and even less is it reduced to the mere pursuit of economic competitiveness. In this view, not all economic policies give rise to industrial policy, but only those that are deliberately oriented to shape different sectors of the economy to meet public goals. The same authors use the term “*developmental policy*” to better capture the purposeful development of economic sectors shaped by public intervention.

These arguments are part of the ongoing public and scientific debate that, in recent years, seems to have acknowledged the inadequacy of the neoliberal approach that has prevailed for the past three decades (at least in the West), according to which the free play of market forces and competition would magically lead to socially desirable outcomes³³. The climate crisis and health crises clearly demonstrate the contrary indeed. In this context, faith in the capacity of the market and in the supposed ability of the interplay of supply and demand to allocate available resources in an efficient, equitable and socially desirable manner has vanished.

In the new economic paradigm, the State no longer limits itself to dictating the rules of the game, regardless of the outcome, but intervenes directly in economic dynamics to stimulate the convergence of economic initiatives towards regulatory goals of public interest. The challenge facing the State is to assume an innovative role within economic dynamics by purposefully directing its actions toward the achievement of results – namely, the generation of multidimensional impacts capable of providing adequate responses to contemporary challenges.

This requires moving beyond a narrow focus on individual aspects of solutions (e.g., environmental or economic) and instead attempting to produce multiple, mutually interconnected benefits,

³³ L. Kramer, *What comes after neoliberalism?*, The London School of Ec. and Pol. Science (2024); L. Menand, *The rise and fall of Neoliberalism*, The New Yorker (2023); D. Lane, *Neoliberalism: A Critique* (2024); A. Fremstad, M. Paul, *Neoliberalism and climate change: How the free-market myth has prevented climate action*, 197 *Ecol. Economics* 107353 ff. (2022); M. Konczal, K. Milani, A. Evans, *The empirical failures of neoliberalism*, Rooseveltinstitute.com (2020); K. Bettache, C. Chiu, P. Beattie, *The merciless mind in a dog-eat-dog society: neoliberalism and the indifference to social inequality*, 34 *Current Op. in Behav. Sciences* 217(2020).

ultimately aimed at enhancing social well-being and improving the quality of life across different territories. To this end, purely proceduralist logics – focused on formal compliance rather than on outcome accountability – are ill-suited to the emerging model of public intervention in the economy.

In this context, it is the actual results or outcomes achieved – whose definition must be clear and democratically determined – that should serve as the primary benchmark for evaluating the legitimacy and effectiveness of public economic action, according to a results-based and outcome-based accountability logic³⁴.

Emblematically, Tirumala and Tiwari's contribution in *Advances in Infrastructure Finance* illustrates the shift towards results-based and outcome-based financing models in the field of infrastructure finance. In fact, they argue that infrastructure financing models are progressively evolving in the view of the achievement of clearly defined results and outcomes. This shift reflects a broader transformation in the role of public and multilateral financial institutions, which are moving toward models that emphasize performance, social impact, and long-term value creation³⁵.

Public intervention can maximize social impact, outcome or results of industrial policies by recognizing the economic and industrial role of societal actors. Such a proactive and innovative role for society in the economy finds secure anchoring in the Italian Constitution.

A good reference for this approach is Article 41 of the Italian Constitution, which envisions economic planning so that public and private economic initiatives can be directed toward both social and environmental goals³⁶. This provides a basis for legitimacy for public intervention in economic dynamics, but at the same time indicates a path forward, as it is evident from the use of the

³⁴ See S. Parrado, A.M. Reynaers, *Public-private partnerships: procedural over results-driven accountability*, 87 Intern. Rev. Admin. Sciences 962 (2021). The article highlights that the accountability logic that prioritizes procedural compliance over the achievement of concrete outcomes, potentially undermines the effectiveness public action in the management of public-private partnerships (PPPs).

³⁵ R.D. Tirumala, P. Tiwari, *Advances in Infrastructure Finance* (2023).

³⁶ See M. Tomasi, M. Rosini, *The European and Italian Economic Constitution(s) after the recent crises: towards a new role for State Powers?*, 2 Italian J. Pub. L. 294 (2023).

adjective “appropriate” in reference to programs (and controls), thus denoting the appropriateness of such programs in the context of implementing the overall design of the Constitution, which still has the person and their dignity as its primary reference—the personalist principle of the Constitution (see articles 2 and 3) and at the same time the recognition of communitarian organizations and socio-economic pluralism (embedded in articles 2, 4, 5, 9, 38, 43, 45, 118.4)³⁷.

At the EU level, the original architecture of the Treaty on the European Economic Community had as its fundamental objective the establishment of a single market in which the four fundamental freedoms (free movement of goods, services, labor and capital) would be respected and safeguarded³⁸. In other words, the European Economic Community was born as a supranational organization aimed at creating a single market without borders between member States, which would also indirectly create the conditions for lasting peace among the peoples of Europe. To implement this plan, public authorities have retreated, often abandoning direct intervention in the economy, ensuring the four fundamental freedoms and avoid distorting competitive dynamics based on protectionist or pseudo-protectionist logic³⁹.

In particular, starting in the 1990s, many markets have been liberalized, resulting in the breakup of monopolies⁴⁰; furthermore, the equalization of public and private enterprises enshrined in the Treaty, together with the general prohibition on State aid, have in

³⁷ See E. Lamarque, *The Italian constitution: a personalist constitution*, 14 Italian J. Pub. L. 398 (2022); F. Bassanini, F. Cerniglia, F. Pizzolato, A. Quadrio Curzio, L. Vandelli (eds.), *Il mostro effimero. Democrazia, economia e corpi intermedi* (2019).

³⁸ On the topic, see C. Barnard, *The Substantive Law of the EU: The Four Freedom*, 8th edition (2025); P. Oliver, W.H. Roth, *The internal market and the four freedoms*, 41 Comm. Market L. Rev. 407 (2004).

³⁹ On the functionality of European integration in maintaining peace, see V.L. Birchfield, J. Krige, A. R. Young, *European integration as a peace project*, 19 The British J. Pol. and Int. Rel., 3 (2017); H. Anastasiou, *The EU as a peace building system: deconstructing nationalism in an era of globalization*, 12 Intern. J. Peace Stud. (2007); Nevertheless, in a critical sense, on the link between European integration and peace, see E. Polonska-Kimunguyi, *The Myth of Peace and Statehood in European Integration Theory: The Imperial Legal Order of the Rome Treaty*, 28 Europ. Foreign Aff. Rev. 185 (2023).

⁴⁰ C. Olson, *Job Centre: The Ongoing Demise of Public Monopolies in Europe*, 27 Denver J. Int. L. & P. 615 (1999), M. Siragusa, *Privatization and EC Competition Law*, 19Fordham Int. L. J. 1002 (1995).

many cases diminished the interest in direct State intervention in the economy⁴¹. Nevertheless, in parallel the Community has become a Union of rights⁴², attentive to fundamental subjective legal positions as evidenced by the introduction of the Charter of Fundamental Rights of the European Union/Charter of Nice⁴³.

But, for the purposes of this discussion, it is important to note that Article 3 of the TEU is not axiologically neutral: this article, while defining the objective of establishing an internal market, simultaneously advocates the need for sustainable development in Europe, based on balanced economic growth and price stability, a highly competitive social market economy aiming at full employment and social progress, and a high level of environmental protection and improvement. In pursuit of these objectives, which must orient the final outcome of market performance, member States shall implement their economic policies, coordinating them with those of others member States (see Article 120).

In other words, the combined provisions of Articles 3 and 120 of the TFEU provide clear legitimacy, on a general level, to the new era of industrial policies aimed at shaping economic sectors towards structures consistent with public purposes of constitutional relevance.

How to leverage these constitutional provisions to develop industrial policy is largely left to the discretion of policymakers. However, some principles underlying the constitutional order and characterizing a few progressive legislations (e.g. in the subject of climate and energy law) should appropriately guide this process.

In this regard, the concepts of democracy, on the one hand, and just sustainable innovation, on the other, come to the fore. Indeed, an industrial policy that wants to be simultaneously democratic, just, sustainable, and innovative can mark a new era of public intervention in the economy. This policy best interprets the

⁴¹ See A. Jones, B. Sufrin, N. Dunne, *Jones & Sufrin's EU Competition Law: Text, Cases & Materials* 603 – 657 (2023); V. Cerulli Irelli, *Impresa pubblica, fini sociali, servizi di interesse generale*, 5 Riv. it. dir. pubbl. comunit. 747 (2006).

⁴² M.P. Chiti, *Dalla «Comunità di diritto» alla Unione dei diritti*, S. Micossi, G.L. Tosato (eds.), *L'Unione europea nel XXI secolo* 259 (2008).

⁴³ The Charter of Fundamental Rights of the European Union was originally signed in Nice by the Presidents of the European Parliament, the Council, and the Commission on 7 December 2000. Pursuant to Article 6(1) TEU, it has the same legal value as the Treaties.

need for a paradigm shift to address the crises of our time, without imposing top-down solutions that risk increasing economic and social costs for the less wealthy and influential, *id est* more vulnerable, groups, exacerbating the cleavages and inequalities that undermine the unity of a political community.

In other words, only industrial development that takes these fundamental concepts into account seems capable of meeting the societal challenges, ensuring that transitions are not the product of pre-existing ruling classes or strong economic powers, but rather enhance and satisfy the profound interests of society in its various facets, based on tailor-made solutions adapted to the conditions of specific contexts.

The need for the new industrial policy to be democratic was argued by Kapczynski and Michaels in their essay cited above⁴⁴. According to the authors, without particular attention to democratic values, industrial policy risks enriching private firms that wield economic power over both the government and the common people, reflecting the stratifications of resources and expertise.

Democracy, in this perspective, can be considered from two different angles: on the one hand, democracy requires improving the capacity of institutions to achieve widely shared public goals; on the other, it requires ensuring the ability to question and modify these objectives over time, based on the legitimate claims of members of the polity, ensuring the possibility of concrete representation and consideration of people's material interests, including those who suffer from forms of material and structural subordination in society. Strengthening the capacity of these vulnerable groups to make their voices heard and influence public decisions, including by encouraging their association in intermediate bodies and ensuring appropriate channels of participation, allows the creation of "*policy-feedback loops to entrench democratic authority over time*"⁴⁵ challenging pre-existing concentrations of power and their potential claims to shape public decisions to their exclusive advantage.

⁴⁴ A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, cit. at 15.

⁴⁵ A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, cit. at 15.

On this point, it can be observed that industrial policy allows the public to reclaim some important decision-making spaces abandoned during globalization. For decades, the globalizing State has shied away from dictating and specifying the desired outcomes of economic initiatives, often leaving organized private economic powers the task of producing the market rules themselves, a new *lex mercatoria* governing international trade, or adopting the rules of private actors created to satisfy the needs of economic market participants, in the name of competitiveness⁴⁶.

The new era of industrial policy, therefore, implies a recovery of the centrality of public powers in economic dynamics, in the pursuit of shared public interest objectives. This is an opportunity to reduce the fragmentation of State political power and to bring the decision-making process back to the service of the communities, whereas in recent years we have witnessed antidemocratic tendencies that have seen fundamental decisions regarding economic development delegated to non-state private fora, the direct or indirect expression of organized economic powers instead of political communities established in the territories⁴⁷.

However, it is essential that the formal reappropriation of economic decision-making spaces by public authorities does not give rise to the substantial monopolistic conditioning of such political decisions by organized economic lobbies capable of exerting pressure on policymakers⁴⁸. In this regard, the literature on “associative democracy” developed between the late 1980s and early 1990s is surely relevant⁴⁹.

According to Paul Hirst, associative democracy requires a more decentralized approach, encouraging a design of the welfare system that entrusts management rights also with democratically

⁴⁶ See L. Ferrajoli, *The crisis of democracy in the era of globalization*, 39 *Anales de la Cátedra Francisco Suárez* 53 (2005); M. D’Alberti, *Poteri pubblici, mercati, globalizzazione* (2008).

⁴⁷ See A.C. Aman, *Globalization, Democracy, and the Need for a New Administrative Law*, 10 *Indiana J. Glob. Legal Stud.* 125 (2003).

⁴⁸ A. Kapczynski, J. Michaels, *Administering a Democratic Industrial Policy*, cit. at 15.

⁴⁹ Among the first uses of the expression associative democracy see J. Mathews, *Age of Democracy: The Political Economy of Post-Fordism* (1989).

accountable, grassroots movements and associations⁵⁰. This approach addresses the democratic deficits created by the market economy on the one hand and by forms of economic planning on the other. The State should not take sides in favor of the establishment of specific associations representing particular groups or interests.

This conception, however, has been objected too because it rejects the idea of democracy as a project of transformation or transition toward a more egalitarian society⁵¹; in other words, this conception ignores the material preconditions that impact the representativeness and participation of subordinate social groups in the governance of public affairs.

In contrast, Cohen and Rogers's conceptions of associational democracy, in valorizing the role that intermediate bodies – secondary associations, in the authors' terminology – can play for the purposes of democratic governance, embrace the possibility of public intervention that supports and finances associations capable of leading to the equitable representation of excluded interests, thus encouraging society itself to make democracy more broad-based and more closely aligned with society's material substratum⁵².

A confirmation of this thesis, from the perspective of the Italian Constitution, may be found in article 3, paragraph 2, of the Constitution, which requires the Republic to remove economic and social obstacles that, by effectively limiting the freedom and equality of citizens, impede the full development of the human person and the effective participation of all workers in the political, economic, and social organization of the country. Removing the obstacles that ultimately impede participation in democratic life and organization is a goal enshrined in the Constitution and should be duly considered in the development and formulation of a new industrial policy, encouraging appropriate forms of co-design, co-governance, and feedback loops that allow for the impact and responsiveness of public policies to social needs.

To this end, it is clearly necessary to channel the input of those who, affected by public decisions, tend to remain marginalized in traditional decision-making and view public

⁵⁰ P. Hirst, *Associative Democracy* (1994).

⁵¹ A. Amin, *Beyond associative democracy*, 1 *New Political Economy* 309 (1996).

⁵² J. Cohen, J. Rogers, *Secondary associations and democratic governance*, 20 *Pol. and Soc.* 393 (1992).

solutions as being adopted in distant and poorly representative forums⁵³.

In other words, a new breed of industrial policies can be truly democratic only if they invest on the self-development of vulnerable communities or, as Kapczynski and Michaels would put it on the creation of “countervailing power that organizes citizens into associations that can effectively participate in governance and ordering”. The US-based discussion on democratic industrial policy is therefore linked to that on just sustainable innovation within the EU policy framework.

Indeed, to be just and sustainable innovation requires firms and governments to transcend their traditional barriers to integrate “economic, technological, social, and environmental goals and actively engage with all stakeholders, in particular vulnerable communities”⁵⁴. From this perspective, innovation is produced through the cooperation of public, private and community actors to be placed at the service of society, increasing social well-being while respecting the scarcity of natural resources and the need to protect them.

Just sustainable innovation is pursued by the EU policy efforts only partially. Sustainable innovation, indeed, is a principle guiding the current research and innovation policy of the EU, which aim, by promoting technological innovation and respecting the need to preserve and improve ecological balances, to address societal challenges through civil applications. It does not guarantee the selection of projects worthy of support, based on their suitability for improving competitiveness, ecological sustainability while also ensuring a series of additional positive systemic social impacts in terms of the effectiveness of legally protected situations, and the benefits for vulnerable social groups, local communities, as well as future generations.

Only by embedding the justice dimension within sustainable innovation is possible to guarantee the equitable social distribution of resources and opportunities, ensuring that innovation benefits all groups and members of society, guaranteeing access to its results

⁵³ According to G. Berti, *La responsabilità pubblica. Costituzione e amministrazione*, (1994), the public administration is a free space called to develop and satisfy the needs of society.

⁵⁴ C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, cit. at 24.

and assets, and therefore equitably distributing the benefits and costs of innovation.

Beyond the realm of research and innovation, just sustainable innovation becomes a paradigm for evaluating public policies, which involves assessing their directionality and their suitability to meet the actual needs of society as it is structured across communities, including the most vulnerable. In fact, it is of the essence to ensure that industrial policy adequately addresses the social implications of ongoing transitions and to provide institutional responses to crises that can provide satisfactory answers to the distributional aspects underlying these changes, fostering people's empowerment through a wide-open technology transfer of innovation and research for the benefit of society.

The perspective this article intends to explore is to examine the possibility of adding the use of just sustainable innovation as an institutional design principle for a more democratic breed of development and industrial policies, leading to the conceptual and experimental roll out of a Just, Democratic, Innovative, Sustainable Industrial Planning (JuDISIP). In other words, the research hypothesis investigated in this study aims to examine whether a more democratic industrial policy leveraging innovation to pursue at the same time social justice and ecological sustainability is better suited to address the crises and related transitions that pose daunting challenges to humanity and the Planet.

3. Collective economic action and economic democracy: pathways for establishing countervailing powers

While fostering the production of multidimensional impacts and added value, a democratic, just, sustainable and innovative industrial policy must also avert the risk of being captured and manipulated by pre-existing centers of economic power which possess the capacity and the means to influence public decision-makers, exerting pressure to ensure that the emerging role of public authorities in the economic sphere is (knowingly or unknowingly) skewed toward individualistic or utilitarian economic interests that are misaligned with the guiding principles of the paradigm shift in public economic intervention discussed in the present work.

To this end, it is essential to establish democratic processes capable of ensuring the continuous, active and decisive

involvement of the interested communities, not only in assessing the need for public works, infrastructure and services, but also in the co-design of project solutions, in monitoring the implementation phase of the project and in managing the outcomes of the innovation. Such active participation and stewardship should ensure that the results effectively correspond to the intended objectives and remain functionally aligned with the needs for which they were originally financed.

The concepts of collective economic action and economic democracy come to the fore. With regard to collective action in the economic sphere, it is first necessary to recall the well-known theories advanced by M. Olson and G. Hardin. Olson⁵⁵ argues that members of a group would not spontaneously contribute sufficiently to the provision of public good, thereby failing to meet the common interests of the group. From this perspective, the problem of free riding would discourage a rational agent from contributing to the provision or maintenance of a public good, since they would benefit from the contributions of others regardless of whether they contributed themselves (the so-called “zero contribution thesis”). This dynamic would be even more pronounced as the size of the group increases.

Hardin⁵⁶, in turn, conceptualized the problem of managing the commons as a n-person prisoner's dilemma, in which each individual spontaneously engages in rivalrous uses of the resource, ultimately leading to its degradation, despite the fact that the common interest lies in its preservation. Therefore, common-pool resources, according to this view, should either be managed by external entities (such as the government) or privatized.

Both of these theses converge in downplaying the potential role of collective economic action in the efficient and satisfactory management of shared assets and resources.

In response, E. Ostrom⁵⁷ revitalized the role of collective action as a means to achieve efficient management of commons, to preserve collective utility, while avoiding overexploitation through

⁵⁵ M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (1965).

⁵⁶ G. Hardin, *The Tragedy of the Commons*, 162 *Science* 1243-1248 (1968).

⁵⁷ E. Ostrom, *Governing the Commons. The Evolution of Institutions for Collective Action* (1990); E. Ostrom, *Are Successful Efforts to Manage Common-Pool Problems a Challenge to the Theories of Garrett Hardin and Mancur Olson?* (1985).

mechanisms of self-governance. In her view, collective action can constitute an effective solution of managing common-pool resources without resorting to top-down governmental management and control or privatization, as local communities are capable of developing sustainable, self-regulated systems supported by appropriate governance structures. In this regard, Ostrom highlighted eight design principles that characterize long-surviving, self-organized resource regimes, which can serve as a foundation for replicating effective models of self-governance in various contexts: 1) the presence of clear boundary rules; 2) proportional allocation of benefits and costs; 3) participation of most of the individuals affected by the resource regime in making and modifying the rules; 4) reliable monitoring systems; 5) graduated sanctions; 6) rapid, low-cost, local arenas for conflict resolution; 7) Recognition by external authorities; 8) governance activities organized in multiple layers of nested enterprises⁵⁸. In fact, the propensity to cooperate for the pursuit of the collective interest depends on social norms⁵⁹, understood as shared understanding about actions that are obligatory, permitted, and forbidden, which may strongly vary in the different local contexts, shaping individual behavior. Social norms guide collective action, but they are simultaneously subject to social evolution based on repeated social interactions and trust-building processes that may arise from the implementation self-governance mechanisms and practices grounded in the aforementioned design principles.

Subsequently, Iaione and Foster applied Ostrom's insights into the urban dimension, with reference both to commons understood as urban resources and assets⁶⁰, and to the broader concept of the city as a commons⁶¹. In particular, their contribution has highlighted the potential for introducing a collaborative and polycentric urban matrix aimed at redesigning public institutions⁶².

⁵⁸ See E. Ostrom, *Governing the Commons. The Evolution of Institutions for Collective Action*, cit. at 57.

⁵⁹ E. Ostrom, *Collective Action and the Evolution of Social Norms*, 14, *J. of Econ. Perspectives* 137 (2000).

⁶⁰ S.R. Foster, C. Iaione, *Co-Cities. Innovative Transitions toward Just and Self-Sustaining Communities* (2022); S.R. Foster, 87 *Collective Action and the Urban Commons*, *Notre Dame L. Rev.* 57 (2011); C. Iaione, *The right to the Co-City*, 9 *Italian J. Pub. L.* 80 (2017); Id. *Governing the Urban Commons*, 7 *Italian J. Pub. L.* 170 (2015).

⁶¹ S.R. Foster, C. Iaione, *The City as a Commons*, *Yale L. Pol. Rev.* 281 (2016).

⁶² See in particular C. Iaione, *Governing the Urban Commons*, cit. at 60.

The envisioned model ultimately seeks to transform cities into collaborative ecosystems that enable collective action for the commons⁶³, wherein citizens take care of the maintenance of local common goods in the broader pursuit of urban welfare regeneration. These authors have jointly emphasized how citizen co-governance can bring about not only greater equity but also innovation in the management of infrastructure and services. Indeed, this form of collective action proves to be particularly effective, as it enables the integration of knowledge and skills present within society—resources that are often unavailable to public administrations—while also allowing for the development of management solutions that are more closely aligned with the specific needs of local contexts. From this perspective, collective action gives rise to genuine forms of collaborative economy that drive sustainable local development. Moreover, on the public organizational side, Iaione has advocated the need to set up dedicated organizational units tasked with facilitation functions, such as a public relations office and a one-stop shop for active citizenship, as well as a government control room located in proximity to the highest levels of decision-making⁶⁴. More recently, citizen science offices have been identified as tools for empowering and valorizing citizens' knowledge and capabilities, not only by systematizing them, but also by disseminating the enabling technological skills required for effective participation⁶⁵.

These authors, like Ostrom, identify their own design principles for a governance of the urban commons grounded in collective action: (1) co-governance; (2) enabling State; (3) pooling economies; (4) urban experimentalism; and (5) tech justice. Collective economic action is ultimately conceptualized within a quintuple helix development model, which systematizes and

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ C. Iaione, *Urban sustainable development and innovation partnerships*, 14 Italian J. Pub. L. 521 (2022); Id., *Città, scienza e innovazione. Il diritto alla scienza per la città come pietra angolare di una nuova governance urbana orientata allo sviluppo sostenibile e alla responsabilità intergenerazionale*, 3 *Munus* 491 (2021).

operationalizes the synergies among public, private, scientific, social and community⁶⁶, based on a partnership principle⁶⁷.

The community thus becomes a key actor in the governance of urban commons, within a model of decision-making and management in which power and responsibilities are shared among various stakeholders – a framework referred to as urban co-governance⁶⁸. Iaione, in particular, has emphasized the importance not only of access, but also of co-management and co-ownership of technology and digital infrastructures and services within the urban context⁶⁹. The co-ownership scenario, in this view, represents the highest degree of technological justice, which, in turn, is a decisive enabling tool for efficient co-governance and co-management capable of placing innovation at the service of society, in the pursuit of collective well-being.

In summary, active collaboration among stakeholders can ensure that common assets and resources serve the common good and promote collective well-being through a just and inclusive governance model, in which all involved actors have a voice in decision-making, and particular emphasis is placed on sustainability, equity, and community engagement.

The concept of “economic democracy” was employed by R.A. Dahl to underscore the necessity of extending democratic principles to the economic sphere, beginning with the workplace and subsequently encompassing the broader economic system⁷⁰. This approach represents an effort to reconcile the productive economic system with democratic values, grounded in the observation that contemporary economic decision-making processes are largely concentrated in the hands of a limited number of corporations and economic elites.

Dahl proposes mechanisms such as worker councils, cooperatives, and participatory decision-making structures as

⁶⁶ S.R. Foster, C. Iaione, *Co-Cities. Innovative Transitions toward Just and Self-Sustaining Communities*, cit. at 60.

⁶⁷ On the partnership principle see C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, cit. at 24.

⁶⁸ S.R. Foster, C. Iaione, *Co-Cities. Innovative Transitions toward Just and Self-Sustaining Communities*, cit. at 60, see in particular Sec. 5.

⁶⁹ C. Iaione, *Legal infrastructure and urban networks for just and democratic smart cities*, 11 *Italian J. Pub. L.*, 747 (2019).

⁷⁰ R.A. Dahl, *A preface to Economic Democracy* (1985).

institutional means to grant individuals a meaningful voice in how enterprises are governed. While he maintains the importance of preserving a market-based system in which firms remain subject to competition, he argues that internal corporate governance should be democratized and made more inclusive. In this context, the government plays a pivotal role in fostering economic democracy. This includes the adoption of regulations and public policies aimed at encouraging worker participation in decision-making processes, ensuring a more equitable distribution of wealth and protecting individuals and communities from economic exploitation. Ultimately, Dahl advocates for a form of “self-government of labor,” rooted in the recognition of the ontological primacy of labor—understood as human activity—over other factors of production.

Economic democracy has subsequently been described as an antidote to the concentration of economic power and defined as “*a system of checks and balances on economic power and support for the right of citizens to actively participate in the economy regardless of social status, race, gender, etc.*”⁷¹. Although this theorization is embedded within a debatable framework oriented toward economic degrowth, it nonetheless contributes to highlighting the counterbalancing role of economic democracy against the dominance of powerful social and economic groups that are often more represented in decision-making processes to the detriment of vulnerable and minority groups.

Recently, Cumbers et al.⁷² have contributed to updating the concept of economic democracy with the aim of identifying pathways for the establishment of countervailing powers capable of challenging dominant economic elites within the context of contemporary capitalism, and ultimately creating fairer and more sustainable forms of economy and society. From this perspective, the authors emphasize the importance of individual economic rights as a basis for broadening the discourse on economic democracy beyond the traditional focus on labor and the self-

⁷¹ N. Johannisova, S. Wolf, *Economic democracy: A path for the future?*, 44 *Futures* 562 (2012).

⁷² A. Cumbers, *The Case for Economic Democracy* (2020); A. Cumbers, R. McMaster, S. Cabaço, M.J. White, *Reconfiguring Economic Democracy: Generating New Forms of Collective Agency, Individual Economic Freedom and Public Participation*, 34 *Work, Empl. and Soc.* 678 (2019).

management of work and productive processes. They advocate for a more expansive understanding of individual participation in economic life—one that is not limited to the workplace but also encompasses the right to be involved in economic decision-making processes from a broader standpoint.

In this regard, the authors emphasize, on the one hand, the need to ensure the enabling capabilities and resources required for the exercise of such individual rights, drawing on the theoretical contributions of Nussbaum and Sen. They also highlight the importance of increasing transparency and openness in economic decision-making processes, which must include public participation. These processes should no longer be confined to the workplace, but should instead extend to a broad range of domains essential to quality of life, such as health, energy, food and housing.

On the other hand, the authors stress the necessity of collective action and mobilization—not only of traditional trade unions but also, in concert, of other social movements and political actors, including environmental and green groups.

Thus, while acknowledging the continuing relevance of collective representation for employees—particularly in light of the growing precariousness of labor markets and the ongoing marginalization of trade unions as collective actors—the authors argue that these efforts must be complemented by the creation of a public sphere capable of facilitating democratic deliberation. Such a sphere should promote diversity, tolerance and the emergence of alternative economic prospectuses.

Durand has recently further demonstrated the necessity of the involvement of the community, understood in its various constituent groups. This is crucial not only to guarantee the democratic character and social justice orientation of the new phase of industrial policies, but also to address the longstanding knowledge problem that historically affected 20th-century economic plannings, often contributing to their failure. Durand has addressed this issue in relation to ecological disruptions and challenges⁷³, highlighting both the failure of markets and the contradictions inherent in green finance in attempting to address ecological complexity, particularly due to their inability to process

⁷³ C. Durand, *The Problem of Knowledge in the Anthropocene. Hayekian Environmental Delusion and the Condition of Ecological Planning* (2025).

dispersed knowledge in relation to long-term, systemic ecological risks. In contrast, the author underscores the need to valorize multiple forms of knowledge—including local, scientific and experiential—in order to enable effective planning capable of confronting these risks and complexity. Such a process should be supported by the informed use of digital technologies (such as big data, sensors, and algorithmic modeling), but always embedded within democratic deliberation.

In brief, the literature on collective action (in the economic sphere) and economic democracy demonstrates that individuals, as members of groups or communities, can actively and effectively contribute to the pursuit of the common interest in an equitable and sustainable manner through the implementation of innovative solutions. This is contingent upon certain contextual conditions, which partly depend on the relevant legal framework and, in turn, influence social norms. Moreover, the most recent contributions on economic democracy have emphasized the *right to be involved* in all types of economic decision-making processes that have implications for the public sphere. The active engagement of society not only in decision-making but also in the assessment of how investments are conducted and their outcomes—through forms of decentralized stewardship—enhances the accountability of the state's renewed leading role in the economy. This, in turn, gives rise to a countervailing power capable of resisting instrumentalization by pre-existing centers of power.

To facilitate the active role of citizens in economic decision-making, it is necessary to establish dedicated facilitation units within the public sector—offices capable of systematizing knowledge, promoting knowledge transfer, reducing transition costs, enabling participatory democracy and fostering forms of co-governance and co-ownership in which the community becomes a key actor in decision-making processes, based on clear responsibilities and a fair distribution of costs and benefits.

Such scenarios give rise to collaborative and democratic economic mechanisms in which decisions are made with the community rather than merely for the community, whose contributions are duly valued within institutional institutions and processes of decision-making, impact measurement and review of the priorities. Such forms of collective economic action and economic democracy can constitute countervailing powers capable

of preventing instrumental and utilitarian distortions in the new industrial policy, thereby restoring the role of public intervention in the economy to one that fully serves society.

From a legal and constitutional standpoint, the aforementioned perspectives on economic democracy and collective economic action find solid grounding in Articles 2, 3, 43, and 118 of the Italian Constitution.

Article 2 affirms that *“The Republic recognizes and guarantees the inviolable rights of the person, both as an individual and in the social groups where human personality is expressed, and requires the fulfilment of the duties of political, economic, and social solidarity”*. Based on this provision, the Constitutional Court has derived the principles of solidarity, shared interest, and civic cooperation in pursuit of the common good⁷⁴. In particular, the combined operation of these principles requires individuals or community formations to exercise prerogatives, faculties, responsibilities, and duties in connection with activities that serve the general interest. Of particular relevance is Constitutional Court ruling No. 89 of 1970, which articulated the existence of a *“general principle of “civic cooperation,” whereby every citizen is, depending on the circumstances, either obliged or empowered to engage in activities deemed urgently necessary for the collective interest – especially in cases where the public authorities, due to exceptional or unforeseeable circumstances, are unable to intervene promptly or sufficiently”*. The Court explicitly connected such private engagement to the duty of social solidarity set out in Article 2 and noted a plurality of applications in existing law.

Article 3 of the Constitution, in turn, envisages the participation of all workers in the economic organization of the country. Although the explicit reference to “workers” may appear insufficiently inclusive by contemporary standards, it is important to recognize that the term “labor” – in the Italian Constitution – is meant to denote a universally shared human condition⁷⁵. As such, the provision may be interpreted as legitimizing broadly inclusive

⁷⁴ On this topic see C. Iaione, *La collaborazione civica per l'amministrazione, la governance e l'economia dei beni comuni*, G. Arena, C. Iaione (eds.), *L'età della condivisione: la collaborazione fra cittadini e amministrazione per i beni comuni* (2015) and, more recently, C. Iaione, E. De Nictolis, *Le comunità energetiche tra democrazia energetica e comunanza d'interessi*, cit. at 25.

⁷⁵ M. Luciani, *Radici e conseguenze della scelta costituzionale di fondare la Repubblica democratica sul lavoro*, 3 ADL (2010).

forms of collective economic action that encompass all those who contribute to the material or spiritual development of society, in accordance with Article 4 of the Constitution.

Article 43 expressly provides that: “For purposes of general utility, the law may originally reserve or transfer, by means of expropriation and with compensation, to the State, to public bodies, or to communities of workers or users, particular enterprises or categories of enterprises that relate to essential public services, energy sources, or monopolistic situations and possess a character of preeminent general interest”⁷⁶. While this provision has become partially outdated in light of the implementation of EU Treaties and the liberalization of markets under European Union law⁷⁷ – given that it would permit legal monopolies in liberalized sectors – it nonetheless offers a clear constitutional ground for the direct economic management of certain enterprises by workers or users. Such forms of collective economic action, or economic democracy, may indeed be more effective in ensuring that the management of certain enterprises serves the general interest. In this sense, Article 43 can be understood as providing constitutional legitimacy to collective economic initiatives, even in the absence of any exclusive legal reservation that would exclude other market operators.

Article 118, paragraph 4, introduced by the 2001 constitutional reform, states: “The State, Regions, Metropolitan Cities, Provinces and Municipalities shall promote the autonomous initiative of citizens, individually and in associations, for activities of general interest, on the basis of the principle of subsidiarity”. Notably, an influential author pointed out that this provision is best understood as a specification of the principles already enshrined in Article 2, particularly those concerning the recognition and promotion of social formations⁷⁸.

⁷⁶ For a recent comment on this article see A. Lucarelli, *L'articolo 43 della Costituzione: l'attualità dei suoi principi e prisma della forma di Stato*, 2 *Dir. Pubbl. Eur.* 256 (2024).

⁷⁷ A. Moliterni, S. Pellizzari, *La Costituzione dimenticata. La riserva di attività economiche alle comunità di lavoratori o di utenti*, 1 *Riv. trim. dir. pubbl.* 243 – 277 (2021).

⁷⁸ A. Barbera, *Costituzione della Repubblica italiana*, *Enc. dir.*, VIII 263 (2015). See also G.U. Rescigno, *Corso di diritto pubblico*, XV ed. 641 (2014) who expresses a critical view of the principle of horizontal subsidiarity, considering it to be in conflict with the principle of substantive equality and instrumental in preserving acquired positions of wealth.

Finally, the principles outlined have been matched by EU legislation concerning energy communities, which represents a significant regulatory development in the recognition of collective economic action as a vehicle for a fair and democratic energy transition, which is an essential pillar of the broader ecological transition and sustainability agenda⁷⁹. In fact, the European Union has explicitly recognized energy consumers as central and active participants in the transition process. If properly informed and empowered, they can catalyze this transition by reducing waste, improving energy efficiency and increasing the production and consumption of clean energy⁸⁰.

Under this framework, final customers assume the role of “prosumers”⁸¹, simultaneously producing and consuming energy and related services. This may well lead to positive outcomes in terms of lower costs, reduced transmission losses (due to decreased reliance on public grids) and greater social acceptance of renewable energy infrastructure.

This model of ‘prosumption’, in many respects, echoes the solution outlined in Article 43 of the Italian Constitution, where communities of workers or users are envisaged as legitimate managers of enterprises or categories of enterprises related to energy sources and characterized by preeminent general interest. Naturally, the key difference lies in the fact that energy communities under EU law are not granted any form of legal monopoly or exclusive rights over economic activity.

In conclusion, the pathways of collective economic action and economic democracy are not only constitutionally grounded and legitimized within the Italian legal system but are also reinforced by recent developments in EU law – particularly in the energy sector – which place citizens at the center of the ecological

⁷⁹ See article 22 of Directive 2018/2001/EU and article 16 of Directive 2019/944/UE. On the topic see I. López, N. Goitia-Zabaleta, A. Milo, J. Gómez-Cornejo, I. Aranzabal, H. Gaztañaga, E. Fernandez, *European energy communities: Characteristics, trends, business models and legal framework*, 197 *Ren. Sus. Energy Rev.* 114403 (2024).

⁸⁰ See A. Persico, *La partecipazione nelle comunità di energia rinnovabile*, 5 *Federalismi.it* (2024).

⁸¹ The neologism employed in the text is drawn from A. Toffler, *The third wave*, (1980).

transition and contribute to advancing more just, democratic and sustainable economic models.

4. Policy tools for JuDISIP

The operationalization of a Just, Democratic and Sustainable Industrial Policy (JuDISIP) requires a set of legal and financial instruments capable of enabling multi-stakeholder collaboration, mission-oriented innovation, and community-driven development. The following Sections (4.1 and 4.2) introduce the core policy tools through which JuDISIP can be implemented in practice. Section 4.1 examines the institutional architectures—such as Public-Community Partnerships (PCPs), Public-Private-Community Partnerships (PPCPs), and strategic multi-stakeholder contracts—that allow communities, public actors, private entities, and knowledge institutions to jointly design, manage and govern projects of public relevance. Section 4.2 then presents the complementary financial dimension, illustrating how blended finance mechanisms and the JuSIIIA evaluative tool can support these collaborative arrangements by aligning funding structures with long-term, multidimensional impacts. Together, these instruments constitute the legal, organizational and financial infrastructure necessary for advancing a new generation of industrial policies grounded in justice, sustainability and democratic participation.

4.1. PCPs, PPCPs and Strategic Multi-Stakeholder Contracts

The new phase of industrial policy must rely on legal instruments capable of enabling the development model that is, by design, socially just, innovative and democratic. This approach should aim to generate multidimensional impacts through the active contribution of society, beginning with the identification of societal needs and extending through the implementation, monitoring and revision of the projects intended to fulfill those needs. To this end, as highlighted in the previous Section, it is necessary to promote forms of economic democracy by enhancing collective economic action.

The legal instruments for implementing JuDISIP are those that place communities on an equal footing—while respecting the

distinct roles and functions—alongside public and private actors who have traditionally acted as promoters and/or implementers of investment lines for the provision of public goods and services, or services of general interest.

In this regard, legal scholarship has emphasized the need to develop partnership models that move beyond the traditional public-private dichotomy, in order to enable the direct involvement of affected social groups. This should be pursued in accordance with the principle of intra-categorical solidarity, fostering their self-organization and cooperation, with particular attention to communities and vulnerable groups⁸². Indeed, traditional public-private partnerships (PPPs) have shown significant limitations, including the lack of participation by the local community. As a result, such a lack of participation may well cause overlooking local needs and forfeiting community support⁸³. New partnership models entail the implementation of an approach based on strategic and entrepreneurial public leadership, aimed at pursuing mission-oriented innovation directed toward the generation of multidimensional impacts through co-governance as a new method of inclusive and multi-stakeholder collaboration: thus, communities become the primary partners of public intervention in the economy, as they are the sole true stewards of the ecosystems being created⁸⁴.

It has been observed that partnerships which leverage the active role of society serve as both legal and negotiation tools that enable these forms of collaboration, and, consequently, a mission-oriented innovation that is just and democratic⁸⁵, capable of addressing the challenges posed by ecological and digital transitions, particularly the gaps and inequalities arising from such transitions⁸⁶.

Such partnerships may take the form of public-community partnerships (PCPs) or public-private-community partnerships

⁸² C. Iaione, *Il diritto all'innovazione sostenibile per l'investimento nelle infrastrutture sociali. Un'analisi empirica*, 6 Riv. Giur. Ed. 301 (2021).

⁸³ C. Iaione, *Partenariato e Finanza di Progetto di Comunità*, 6 Riv. Giur.Ed. 433 (2024).

⁸⁴ *Ibid.*

⁸⁵ C. Iaione, *Il diritto all'innovazione sostenibile per l'investimento nelle infrastrutture sociali. Un'analisi empirica*, cit. at 82.

⁸⁶ C. Iaione, *Partenariato e Finanza di Progetto di Comunità*, cit. at 83.

(PPPCs), depending on the actors involved and, in particular, on whether a private entrepreneurial entity (such as a service provider or contractor/operator of public works) is part of the partnership. PCPs and PPCPs have been applied to a range of resources and infrastructures—including public assets, infrastructure and public service networks—transforming them into shared goods and services. They are managed through collaborative arrangements involving diverse actors, all of whom are committed not only to advancing their individual interests, but also to cooperating toward the achievement of a common general interest.

Emblematic instruments of PCPs that can be leveraged transversally in the new phase of JuDISIPs include co-programming and co-design initiatives with third sector entities, as well as City Science Offices and collaboration pacts in the urban context⁸⁷. At the general regulatory level, an important legal reference concerns the procedures for co-programming and co-design with third sector entities pursuant to Article 55 of Legislative Decree No. 117/2017. This provision establishes that public administrations, in the exercise of their functions related to the territorial planning and organization of interventions and services in areas of social interest, must ensure the active involvement of third sector entities through forms of co-programming, co-design, and accreditation. It clarifies that co-programming is aimed at identifying, by the responsible public administration, the needs to be addressed, the necessary interventions to meet those needs, the methods of implementation and the resources available. In this regard, a recent ruling has also clarified the possibility of derogating from public tendering requirements in favor of a collaborative approach. Specifically, the Regional Administrative Court of Lombardy, Milan, ruling no. 2533/2024, in a case concerning the adoption of a management model for a reception center based on the institutions of co-programming and co-design provided under Article 55 of Legislative Decree No. 117 of 2017, held that this constitutes an *“organizational model inspired not by the principle of competition but by that of solidarity in relation to activities with a pronounced social significance”*. The ruling further specified the scope for mutual collaboration and progressive co-creation of value, emphasizing that the evaluation criteria for the offer should

⁸⁷ Ibid.

not preclude the subsequent development, in agreement with the Administration, of the project presented by the operator. This is precisely because the procedure outlined in Article 55 of the Third Sector Code is not strictly competitive but collaborative; only in public procurement tenders is the project prepared solely by the participant, and the contracting authority can evaluate it but not modify or integrate it⁸⁸.

Regarding PPCPs, living labs have been identified as notable examples, where businesses, researchers, public authorities and citizens collaborate to rethink and redesign the urban system. In these cases, as well, public-private-community partnerships are established to provide affordable housing, particularly in the sectors of student housing, co-housing and senior housing⁸⁹.

An interesting example of a PCP or PPCP – depending on the specific configuration – can also be found in social impact bonds (SIB)⁹⁰, a form of impact investing in which capital is invested in consideration of the social objectives that the investment actively aims to achieve⁹¹.

In the Italian public law debate, the social impact bond (SIB) has been described as a new form of public-private collaboration aimed at maximizing the private actor's capabilities in achieving inherently public interests through financial incentives. Notably, it does not provide for either the right to capital repayment or a fixed return on investment⁹².

From a systemic perspective, it has been argued that the SIB may be classified as an atypical form of public-private

⁸⁸ See A Crismani, *Co-progettazione vs appalti: discrezionalità amministrativa e nuovi assetti tra il mercato degli appalti e il terzo settore (nota a TAR Lombardia n. 2533/2024)*, available on the website: <https://www.giustiziainsieme.it>

⁸⁹ C. Iaione, *Partenariato e Finanza di Progetto di Comunità*, cit. at 83.

⁹⁰ On Social Impact Bonds, in general, see F. Dahbi, I. Carrasco, B. Petracci, *A systematic literature review on social impact bonds*, 62 *Fin. Res. Letters* (2024); A. Del Giudice, M. Migliavacca, *Social Impact Bonds and Institutional Investors: An Empirical Analysis of a Complicated Relationship*, 48 *Nonprofit Vol. Sec. Quart.* 50 (2019); M. Liang, B. Mansberger e A. C. Spieler, *An Overview of Social Impact Bonds*, 13 *The J. of Intern. B. & L.*, 267 (2014).

⁹¹ See D. Lenzi, *La finanza d'impatto e i green e social bonds. Fattispecie e disciplina tra norme speciali e principi generali*, 1 *Banca Impr. Soc.* 115 ff. (2021).

⁹² A. Blasini, *Nuove forme di amministrazione pubblica per negozio: i «social impact bonds»*, 1 *Riv. trim. dir. pubbl.* 69 (2015).

partnership⁹³. However, the contract is necessarily characterized by multi-stakeholder involvement and, in an innovative way, allows for the alignment of all participants' interests around a clearly defined social impact outcome.

The operation is designed to finance specific socially relevant activities through an agreement with a public authority. Under this agreement, the public administration commits to remunerating the services provided by an economic operator—who may be a traditional private entrepreneur or a third sector organization—only if the agreed-upon objectives are effectively achieved, as precisely outlined in the contract. However, the financier of the operation is not the public administration, which is not required to bear the economic consequences in the event of the initiative's failure. Instead, the funding is provided by a third party external to the administration. Unlike service or construction-and-operation concessions, the activity funded under a SIB does not generate direct financial returns. Instead, remuneration is conditional upon the delivery of measurable social impacts, which must be subject to objective evaluation.

Within this multi-stakeholder framework, the community may play at least three roles: a) in the co-programming and co-design phase, contributing to the identification of specific needs of the target population, thereby avoiding the reliance on competitive dialogue procedures, which, while sometimes proposed as tools for need assessment, can be difficult to manage and not fully adequate to bridge the information asymmetries; b) as a financier, by directing personal savings or voluntary contributions towards the project's funding; c) as an implementer, by managing the good or service through non-profit associative bodies (e.g., non-profit third sector organizations).

Finally, at a higher level of complexity and multi-stakeholder engagement, public-private-community-nonprofit-science partnerships (5Ps) art more articulated and actor-diverse models that reflect the increasingly significant role of cognitive institutions, such as universities and research centers, within partnership frameworks. These collaborations may focus on the production of

⁹³ A. Blasini, *Nuove forme di amministrazione pubblica per negozio: i «social impact bonds»*, cit. at 92; C. Napolitano, *Social Impact Bond: an innovative tool searching for its own law*, 3 *Nuove Aut.e* 563 (2018).

research and innovation, or on urban regeneration initiatives aimed at the creation of science parks or shared spaces for research and innovation⁹⁴. Foster and Iaione have demonstrated that this instrument can represent an effective response for generating a complex, inclusive and democratic model of urban infrastructure financing and management⁹⁵. The evolving trajectory of the European legal framework, particularly as reflected in the interpretation of the Horizon Europe Regulation⁹⁶, envisions the transformation of the “knowledge triangle”⁹⁷ into a “knowledge square.” This shift aims to ensure that education, research, and innovation not only engage in mutual dialogue but are also placed at the service of, and simultaneously leverage, knowledge produced by society. “Services to society” – that is, the transfer of scientific knowledge and research outcomes to the public – represent, metaphorically, the new corner of the knowledge polygon and, in fact, constitute the innovative and challenging mission of research institutions.

The challenge, therefore, lies in the operationalization of the knowledge square, through the identification of channels and pathways that effectively recognize and valorize the needs of communities. This takes place within a framework where

⁹⁴ See C. Iaione, *Partenariato e Finanza di Progetto di Comunità*, cit. at 83.

⁹⁵ S.R. Foster, C. Iaione, *Co-Cities. Innovative Transitions toward Just and Self-Sustaining Communities*, cit. at 60.

⁹⁶ See Reg. (EU) 2021/695, of which recital No. 51 affirms the need to encourage the engagement of all social actors in participating in and contributing to the design and creation of programs and content through responsible research and innovation processes. These processes should respond to the concerns, needs, and expectations of citizens and civil society, promote scientific education, make scientific knowledge accessible to the public, and facilitate the participation of citizens and civil society organisations in research activities. To this end, it is deemed appropriate to remove barriers and foster synergies among science, technology, culture, and the arts in order to achieve a new, sustainable quality of innovation.

⁹⁷ On the knowledge triangle metaphor see M. Unger, W. Polt, *The Knowledge Triangle between Research, Education and Innovation – A Conceptual Discussion*, 11Foresight and STI Gov., 10 (2017); M. Markkula, *The Knowledge Triangle: Renewing the University Culture*, in *The Knowledge Triangle: Re-inventing the Future* 11 (2013); E. Hazelkorn, *Teaching, Research and Engagement: Strengthening the Knowledge Triangle*(2010). See also the Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, of 26 November 2009 on developing the role of education in a fully-functioning knowledge triangle (2009/C 302/03).

communities themselves become key agents of innovation, embracing sustainable models of (co-)management of common resources, also in the interest of future generations. Crucially, this process requires systematic integration of synergies that may develop between communities and the realms of research and scientific education.

An important testing ground for 5Ps partnerships can be found in energy communities. Several Italian energy communities have been developed through the systematic integration of multi-stakeholder contributions, following institutionalized partnership frameworks that establish a new legal entity based on internal democratic co-governance. Control powers are vested in actors located in proximity to the facilities, on the basis of parity rather than financial participation, and management is oriented toward the shared distribution of benefits. Indeed, a crucial contribution to the dissemination of energy communities has often been provided by research institutions, such as universities and the National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA). These institutions have offered technical support and facilitated knowledge transfer during the assessment and feasibility evaluation phases, accompanying the initiatives throughout their development. This has taken place against the backdrop of an innovative and challenging regulatory framework, requiring engagement from diverse public, private and community stakeholders.

Lastly, a particularly interesting model of 5Ps is provided by Article 70 of the Municipal Regulation on Urban and Climate Democracy and Justice in Reggio Emilia⁹⁸. This regulation establishes the Partnership for Sustainable Development and Innovation (PSSI), a flexible and atypical instrument that explicitly focuses the partnership's actions on the interdependence between sustainable development, inclusion, and innovation. The PSSI aims at the development and implementation of experimental projects in urban innovation and sustainability to combat climate change, developed through co-design procedures.

⁹⁸ Municipal Regulation on Urban and Climate Democracy and Justice in Reggio Emilia, approved by City Council Resolution No. 141 of September 12, 2022, and amended by City Council Resolution No. 48 of March 18, 2024.

PSSIs constitute multi-stakeholder partnerships based on the sharing of objectives, actions and resources, as they are founded on the sharing of responsibility as well as benefits. PSSIs foster experimental solutions and new evaluation tools, involving urban actors from diverse socio-economic categories who and public authorities who choose to act in a non-authoritative manner.

An accountability tool has also been defined to assess the value generated, grounded in principles of public transparency, both public and private reporting, and social remuneration understood as the production of collective value from the partnership experience. This tool is the Community Balance Sheet (Article 80), designed to evaluate partnership experiences and potentially engage the various types of collaborating entities, thus better legitimizing collective action beyond traditional metrics, for both public administrations and the market, based on the calculation of multidimensional impacts⁹⁹.

In light of the foregoing, it should be noted that various instruments exist to enhance the active role of the communities in their different expressions, in order to develop a new just, democratic, innovative, sustainable industrial planning. The new phase of public intervention in the economy can capitalize on ongoing experiments, successful initiatives, and innovative frameworks that seek to harness, expand, and exploit synergies among the diverse actors shaping institutional, economic and social dynamics. This includes sharing benefits and responsibilities and developing tailored solutions, anchoring economic remuneration to public administration activation and the achievement of socially defined, collectively agreed upon, and objectively measured and verified social value on the basis of multidimensional impacts.

A transversal and open issue rather concerns the modalities of financing the operations and instruments in question, in light of the usual scarcity of resources available to public partners and the general unwillingness of private actors to invest in initiatives where the economic return is uncertain or deferred over time, or where profit is neither the sole nor the primary added value expected from the funding. In this regard, the role of institutional investors—

⁹⁹ See N. Levi, F. Della Ventura, *Innovazione e sostenibilità degli strumenti contrattuali alternativi per la lotta al cambiamento climatico. Il caso di Reggio Emilia*, 1 *Munus* 275 (2024).

primarily non-profit banks, also referred to as patient investors – comes into focus. Part of their mission includes identifying the most appropriate financing instruments to support long-term, multi-stakeholder initiatives, as will be further illustrated through the case studies (see Section 5). In this capacity, institutional investors act as community investors¹⁰⁰ and can serve as intermediaries in the implementation of community-based project finance operations¹⁰¹.

4.2. Blended Finance for PCPs, PPCPs and Strategic Multi-Stakeholder Contracts: the JuSIIIIA tool

In the context of industrial planning rooted in just sustainable innovation outlined in the preceding paragraphs, the need to rethink public intervention in the economy as a key ingredient of a transformative and adaptive development strategy – focused not only on economic growth but also on social justice, environmental sustainability, and territorial cohesion – has become unmistakably clear. This reorientation demands however a blended investment and financial approach capable of understanding and measuring the long-term integrated economic value linked to the assessment of a multidimensional set of systemic and intergenerational externalities, therefore moving beyond traditional economic performance metrics¹⁰².

Indeed, it has been suggested that sustainable and impact finance might be the right solution to this end but recent academic literature on the EU policy framework regulating sustainable finance has highlighted significant shortcomings in the functioning of current sustainable investment mechanisms. In particular, it has been demonstrated the inability of traditional ESG indicators and scores to adequately reflect the actual impacts generated by investments. Specifically, Scheitza and Busch have shown that 40% – in a sample of 1,000 – of investment funds classified under Article 9 of the EU Sustainable Finance Disclosure Regulation (SFDR) pursue a general Environmental, Social, and Governance (ESG) strategy, without a clearly defined impact-oriented approach. Nevertheless, these funds receive ESG scores that are not

¹⁰⁰ G. Serafeim, *Investors as Stewards of the Commons?*, 30 J. Appl. Corp. Fin. 8-17 (2018).

¹⁰¹ C. Iaione, *Partenariato e Finanza di Progetto di Comunità*, cit. at 83.

¹⁰² D. Schoemaker, W. Schramade, *Shareholder primacy or stakeholder governance?*, 69 Finance Research Letters 106244 (2024).

appreciably or significantly different from those attributed to funds that do follow an impact-oriented strategy¹⁰³. Similarly, Consolandi et al have explored the limitations of ESG ratings, proposing the integration of externality data to improve the representation of an investment's overall impacts in terms of systemic outcomes¹⁰⁴.

Bearing these considerations in mind, this Section introduces an operational framework designed to support the planning and evaluation of public investments and innovative, multi-stakeholder partnerships, drawing inspiration from the Just Sustainable Innovation paradigm. Specifically, it proposes the use of the JuSIIIA tool as a tool developed to interpret and measure the transformative impacts of public interventions in complex contexts.

The tool acknowledges that public value creation often occurs through collaborative pathways involving institutions, organized civil society, businesses, and local communities. From this perspective, adopting an evaluation logic that recognizes the plurality of actors, the systemic nature of the transformations sought, and the necessity of a long-term impact approach is essential to democratic innovation governance.

The JuSIIIA tool is built on a robust methodological foundation, integrating international evaluation standards (such as OECD DAC guidelines) with reflective, mission-oriented approaches. At the core of the model lies the distinction between output, outcome, and impact – not as mere technical categories, but as expressions of a co-design and learning journey among stakeholders. This allows for assessing not only what is produced, but also the changes generated and the structural, systemic transformations that may emerge in the medium to long term.

In a context where public investments are increasingly expected to address integrated objectives of environmental

¹⁰³ L. Scheitza, T. Busch, *SFDR Article 9: Is it all about impact?*, 62 Finance Research Letters 105179 (2024).

¹⁰⁴ C. Consolandi, A. Roncella, *Finance for Impact: The New Era of Sustainable Finance*, C. Busco, C. Consolandi, I. Malafrente, F. Sammarco, E. Scognamiglio (eds.), *The Impact of Organizations: Measurement, Management and Corporate Reporting* (2023); C. Consolandi, J. Hawley, *From ESG to Sustainable Impact Finance: Moving Past the Current Confusion*, A.B. Schmidt (ed.), *Sustainable Investing. Problems and Solutions* (2025).

sustainability, social justice, and democratic innovation, it is indispensable to equip decision makers with tools that allow for a systemic and transparent assessment – not only of what is realized, but also of how and with what long-term structural effects. It is from this perspective that the JuSIIIA tool is positioned – a methodological device designed to support planning through the measurement of transformative impacts generated by policies and interventions.

Unlike many traditional metrics, which focus predominantly on economic performance or the immediate delivery of outputs, JuSIIIA presents a multidimensional, mission-driven approach, grounded in a long-term, causal logic. This enables a focus not only on the efficiency of employed means, but above all on the public intervention's capacity to create enduring and just change – aligned with the principles of Just Sustainable Innovation.

To support this vision, JuSIIIA is built on a solid, integrated theoretical framework capable of connecting policy design with the evaluation of its transformative impact.

JuSIIIA is grounded in three core theoretical pillars. The first pillar is the Theory of Change (ToC) introduced by Weiss (1995)¹⁰⁵ and Reed et al. (2021)¹⁰⁶. ToC enables the construction of a logical chain linking activities, outputs, outcomes, and impacts – useful for defining and measuring expected change. In multi-stakeholder public-private-community partnerships (PPPCs), where actors' complexity demands coherence between intent and results, ToC helps to make implicit assumptions explicit and improve project design. The TOMS Shoes case¹⁰⁷ illustrates how unexamined assumptions can lead to unintended side effects, highlighting the value of a rigorous theoretical framework. JuSIIIA adopts ToC to guide impact assessment transparently and verifiably.

¹⁰⁵ C.H. Weiss, *Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families*, 1 *New approaches to evaluating community initiatives: Concepts, methods, and contexts* 65 (1995).

¹⁰⁶ M.S. Reed, *Stakeholder participation for environmental management: a literature review*, 141 *Biological conservation* 2417 (2008).

¹⁰⁷ B. Wydick, E. Katz, B. Janet, *Do in-kind transfers damage local markets? The case of TOMS shoe donations in El Salvador*, 6 *J. Dev. Effectiveness* 249 (2014).

The Social and Transformative Innovation – Transition Theory (TRANSIT)¹⁰⁸ developed within the European TRANSIT and ARTS projects¹⁰⁹, examines how social innovation can generate structural and relational change. It focuses on processes like translocal diffusion, institutional embedding, and stakeholder collaboration. JuSIIIA adopts this approach to assess an intervention’s systemic impact—measuring its capacity to take root locally, shift norms, and enable new forms of governance.

Finally, JUSIIIA builds on the principle of Just Sustainable Innovation¹¹⁰ inspired by Rawls (1971)¹¹¹ and Ostrom (1990)¹¹², this concept promotes innovations that combine environmental sustainability, social justice, and economic inclusion. Its focus is on equitable transitions, inclusion of vulnerable communities, and shared governance of common goods. JuSIIIA incorporates this approach to ensure that intervention benefits are distributed equitably, and that impact assessments reflect environmental, social, and intergenerational justice criteria—consistent with EU standards such as the CSRD and CSDDD directives.

To translate these theoretical references into a coherent operational and evaluative structure, JuSIIIA adopts and adapts the IOOI model as the core framework for interpreting and monitoring change. JuSIIIA uses an IOOI structure (Input – Output – Outcome – Impact), but reinterprets it through its transformative lens: i) Input: financial, human, technological, or institutional resources deployed; ii) Output: immediate products or services generated; iii) Outcome: observable short- to medium-term changes, such as in behaviors, capacities, or service quality; iv) Impact: long-term transformations that often exceed an intervention’s direct control but must be anticipated, monitored, and made visible.

¹⁰⁸ A. Haxeltine et al., *A framework for transformative social innovation*, 5 TRANSIT working paper (2016).

¹⁰⁹ B. Pelet et al., *Transformative Social Innovation: Insights from the TRANSIT Project*, *Journal of Social Entrepreneurship* (2020).

¹¹⁰ C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, cit. at 24.

¹¹¹ J. Rawls, *A Theory of Justice*, Harvard University Press (1971).

¹¹² C. Iaione, *Just Sustainable Innovation: Shared Systemic Stewardship as Governance Impact of Sustainable Investment?*, cit. at 24.

In the case of multi-stakeholders strategic partnerships, for instance, the output might involve building a green infrastructure or launching a shared service – but the true outcome unfolds over time through new trust relationships, institutional shifts, or enhancements in community resilience. Only via an approach like JuSIIIA's can these second-order, often invisible yet fundamental effects be captured and valued. To render these impacts observable, comparable, and aligned with social justice principles, JuSIIIA incorporates a comprehensive set of impact dimensions:

1. Technological – Capacity to innovate in accessible, ethical, and responsible ways;
2. Social & Civic – Protection of rights, inclusion, and promotion of equity;
3. Economic – Equitable growth, support for local economies, and decent work;
4. Financial – Feasible and responsible long – term production of revenues;
5. Governance/Institutional – Strengthening participation and economic countervailing power of citizens and social organizations;
6. Environmental – Climate mitigation, resource sustainability, and adaptation;
7. Health – Care for human and ecosystem well-being, following planetary health principles.
8. Territorial – Responsiveness to local specifics and enhancement of resilience;
9. Educational & Cultural – Promotion of shared knowledge, creativity, and critical capacity;
10. Generational – Safeguarding the future with respect for intergenerational equity.

These dimensions can be used as a shared interpretation framework among stakeholders – facilitating participatory evaluation, setting objectives in PPPs, and constructing relevant indicators for shared development contracts.

JuSIIIA is not just a tool for ex post measurement. It can also be used ex ante in project design. It enables the definition of desired impacts from the outset and the mapping of the logical path to achieve them. This makes it particularly effective for public-private-community partnerships, where establishing strong alignment among actors around a shared purpose is essential.

Within co-design processes, JuSIIIA can serve as a common language among public institutions, businesses, citizens, and third-sector organizations—fostering an adaptive learning process that evolves alongside the project itself.

JuSIIIA represents a leap toward impact-oriented innovation governance, where evaluation is not bureaucratic but strategic—guiding public decision-making, assessing partnership value, and legitimizing long-term transformative processes.

In the current environment, where public investments must deliver concrete environmental and social outcomes, adopting tools like JuSIIIA helps make economic planning more just, inclusive, and territorially grounded, while strengthening communities' role in shaping a sustainable future.

Within this theoretical and operational landscape, the JuSIIIA framework emerges as a tool that operationalizes justice as a guiding principle for sustainable innovation—integrating transformative visions into territorial planning, public investments, and community-based public-private partnerships. JuSIIIA stands on a multi-layered evaluative architecture that coherently unites the systemic ambitions of Planetary Health theory with territorial justice needs—translating such principles into an operational methodology for measuring impact across nine interconnected dimensions. In this logic, health is viewed not only as a healthcare outcome but as an indicator of collective well-being, ecological balance, and socio-spatial justice—serving as a normative compass for just transitions. Thus, innovation is evaluated not only in technical or economic terms but in its capacity to generate systemic, equitable, and durable transformations in real-world contexts. JuSIIIA also plays a strategic role in structuring multi-stakeholder contracts—facilitating co-definition of objectives and shared reporting of results in complex public innovation processes.

Anchored to a contextual baseline built from official data and local knowledge, it allows tracing project outcomes via a Theory of Change-inspired causal logic—integrating quantitative evaluations with reflective narratives from involved actors.

A distinctive feature of the framework is its assignment of a multiplier role to institutions—as regulatory and relational environments influence the generativity and durability of produced effects. From this standpoint, governance is not a neutral backdrop, but a living component that can either enable or obstruct

transformation. For this reason, JuSIIIIA is particularly well-suited to support the co-design and monitoring of experimental territorial policies like PPPCs—where building social, environmental, and institutional infrastructures takes place through cooperation, mutualism, and shared responsibility. The framework’s dialogic and hybrid approach transcends the top-down and bottom-up dichotomy—creating a mediation space between technical knowledge and situated perception, standardized indicators and community priorities, public logics and civic practices—thus reinforcing projects’ transformative impact through an evaluation method that is both measurement and collective learning.

Although conceived to assess systemic change generated by projects and policies oriented towards just and sustainable innovation, JuSIIIIA recognizes the inherent complexity of measuring impact in real-world contexts. In many cases, the deepest, most transformative effects emerge beyond an intervention’s temporal horizon and intertwine with institutional, social, and ecological variables that are difficult to isolate. For this reason, the framework adopts a flexible yet rigorous approach—enabling impact inference even from observable changes at the outcome level, provided they are supported by sound theories of change, empirical evidence, or shared contextual knowledge. This allows JuSIIIIA to maintain a balance between methodological sustainability and evaluative reliability—avoiding both oversimplification and analytical paralysis.

Another cornerstone of the model is the use of multidimensional evaluative rubrics—which go beyond a single indicator to interrogate the quality, depth, equity, and relevance of change with respect to the nine impact dimensions. Every assessment begins with a baseline—a snapshot of existing conditions—which allows reading indicator evolution over time and attributing a comparative and contextualized meaning to observed outcomes. The baseline is not just a technical datum, but a lever for building shared responsibility and collective learning, since it provides a common reference point for all involved parties. Where initial data are lacking, JuSIIIIA encourages the participatory construction of an alternative baseline through secondary sources, public consultations, or analysis of similar cases. Adaptable to local specificities but anchored to a standard 1–5 scale, the indicators ultimately allow classifying impact intensity—

distinguishing negligible outcomes from structural transformations. In this way, JuSIIIA asserts itself as a dynamic and dialogic tool—capable of measuring what truly matters: not just whether something has changed, but how significant, just, and lasting that change has been for the communities, territories, and systems involved.

In an era where complex social, environmental, and economic challenges call for new forms of collaboration among public institutions, private entities, and communities, the JuSIIIA tool emerges as a strategic device to guide and assess high-impact transformation processes. Transcending linear and sectoral logic, it enables the interpretation of interventions' systemic effects—promoting the emergence of new institutional, cultural, and territorial alliances. Its multidimensional, justice-, sustainability-, and co-design-based evaluative architecture transforms JuSIIIA into more than a technical measurement instrument—it becomes a catalyst for collective learning and shared responsibility. In this way, it represents a tangible contribution to transformative public finance—capable of steering investments and policies toward outcomes that are more equitable, resilient, and generative over time.

5. Case studies

In this section, four case studies drawn from the practices of two major long-term institutional investors – the European Investment Bank (EIB) and the African Development Bank (AfDB) – will be analyzed. The section is divided into two sub-sections. The first sub-section examines two case studies related to Social Outcome Contracts (SOCs) in the financing of social infrastructure and services. The second sub-section focuses on two case studies of Results-Based Financing (RBF) in the fields of water and energy infrastructure.

In line with the distinction outlined in Tirumala and Tiwari's discussion of innovative financing instruments, this analysis welcomes a conceptual differentiation between results-based and outcome-based financing¹¹³. Results-based financing, indeed, refers to mechanisms in which payments are linked to the achievement of

¹¹³ R.D. Tirumala, P. Tiwari, *Advances in Infrastructure Finance*, cit. at 35, 66.

specific results, based on incentive structures that link financial disbursement to the achievement of measurable outputs. Outcome-based financing, instead, ties repayment or financial returns to the achievement of predefined outcomes, understood as verifiable improvements in quality of life generated by the intervention. This form of financing, exemplified by social impact bonds, places greater emphasis on real-world effects rather than the mere delivery of outputs.

Although in practice distinguishing between these two approaches is not always straightforward, it is preferable to maintain the conceptual distinction throughout the following subsections, aiming at spreading familiarity with its use and promoting its wider adoption, while ensuring attention to its underlying implications.

5.1. Case studies of Social Outcome Contracting

In the context of outcome-oriented public policy, it is essential to clearly distinguish between Social Outcome Contracts (SOC) and Social Impact Bonds (SIBs) – two instruments that are often used interchangeably but differ significantly in both contractual and financial terms. An SOC is an agreement between a public authority and one or more service providers, where payments are conditional upon the achievement of clearly defined and measurable social outcomes. This model shifts the focus from funding activities to achieving results and can be structured in various ways, with or without the involvement of private capital. A SIB, on the other hand, is a specific type of SOC that involves private investors who provide the upfront capital to implement the social intervention and are repaid – often with a return – only if the predefined outcomes are successfully met. In this arrangement, the financial risk is transferred from the public sector to the investor. Understanding these differences is crucial for properly analyzing real-world cases, avoiding terminological confusion, and assessing the practical and strategic implications of each model within the broader field of social impact finance.

5.1.1. The KOTO-SIB case

KOTO-SIB (Kotouttamisen SIB) represents one of the first nationwide experiments in Europe applying Social Impact Bonds (SIBs) to promote the labour market integration of migrants and

refugees. The initiative was developed in response to a well-identified structural issue highlighted by the Finnish government: the persistent employment gap between Finnish citizens and foreign nationals, which worsened following the large influx of migrants during 2015–2016. In particular, data showed that migrants residing in Finland for at least one year had significantly higher unemployment rates than the native population, leading to increased public welfare costs and lower participation in the country's economic life¹¹⁴.

To address this challenge, Finland's Ministry of Economic Affairs and Employment implemented an innovative public service financing mechanism: a national-level Social Impact Bond (SIB), based on a pay-for-results system, directly tied to verifiable indicators of employment success. The model established a virtuous cycle in which initial service funding was provided by private and institutional investors, while government repayment occurred only if and when predefined outcomes were achieved – thus enabling a risk-sharing arrangement between the public and private sectors.

The fund manager, Epicus, was selected through a public tender using a competitive dialogue procedure. This allowed for the joint definition of success criteria, evaluation mechanisms, and performance thresholds. The fund coordinated a blended financial operation totalling €14.2 million, raised from various actors, including the European Investment Fund (EIF), the European Commission, and other public and private investors. This capital was used to deliver high-quality, integrated services aimed at labour market inclusion for migrants, including personalized language acquisition programs, career guidance, sector-specific training, and individual mentoring.

The initial goal was to involve 2,500 migrants over a three-year period. The main success criterion was defined as achieving at least 70 days of paid employment per participant. Employment outcomes were verified through official administrative records, and results were compared against a counterfactual group – individuals with similar characteristics who were not part of the programme. Repayment from the state to the fund was strictly performance-

¹¹⁴ European Commission, *Labour Market Integration for Immigrants using a Social Impact Bond (Koto-SIB, Finland) - WeBuySocialEU Good Practice Case #71* (2020).

based: only if the treatment group performed better than the control group would the government make reimbursements – up to a maximum of €8.6 million. This approach effectively created an ex-post redistribution of fiscal savings generated by reduced unemployment and increased migrant participation in the labour market.

By the end of 2019, the project had enrolled 2,211 participants, nearly reaching its initial target. Of these, 869 adults secured stable employment, with employment rates surpassing those of the comparison group – demonstrating the effectiveness of the interventions provided. According to analyses by Finnish authorities, the project generated net public savings exceeding €20 million since 2016. These savings stemmed mainly from decreased dependency on social benefits, increased tax revenues, and improved economic self-sufficiency of participants. The model thus proved capable of creating measurable, accountable, and sustainable social and economic value¹¹⁵.

In addition to its quantitative results, KOTO-SIB also highlighted several strategic lessons for future policy design. Specifically:

- the importance of a neutral intermediary to manage stakeholder dialogue, oversee implementation, adapt strategies, and facilitate independent evaluation;
- the need for operational flexibility to accommodate the complexity of individual employment pathways;
- the value of co-design between public and private sectors, enabled by a competitive procurement mechanism, which allowed for transparent, jointly agreed-upon definitions of success, monitoring methods, and contract limits.

The Finnish case of KOTO-SIB stands as a concrete and replicable example of how innovative financial instruments can be effectively integrated into active labour market policies, delivering both measurable social impact and economic benefits. Its evidence-based and performance-driven structure makes it a model for other national and European contexts seeking to tackle complex challenges such as the socio-economic integration of migrants.

¹¹⁵ European Commission. (2020). *Labour Market Integration for Immigrants using a Social Impact Bond (Koto-SIB, Finland) (WeBuySocialEU Good Practice Case #71)*.

5.1.2. Morocco's PAAIIS as sovereign social outcome contracting

Morocco's *Programme d'Appui à l'Accès Inclusif aux Infrastructures de Santé* (PAAIIS) illustrates how a targeted, results-based public sector investment can change a health system's course for equity and resilience with value creation. The African Development Bank capitalizes the project with a results-based loan of €120 million disbursed over four years (2023–2026) in tranches upon verified results from disbursement requests.¹¹⁶ This financing design ties money against services rendered instead of inputs, while the entire program is based on a results chain already implemented by the Ministry of Health and Social Protection (MSPS) for performance-based budgeting. The government's program is much larger, roughly €2.88 billion, with AfDB's loan implemented alongside World Bank contributions and major government contributions; this sub-positioning ensures that the “money bought” by the Bank's financed resources gets critical results from a system-wide transformation compared to a stand-alone pilot program.

Investment is concentrated in three fields with clear development returns: decreased inequality from a geographically based primary and secondary infrastructure; digitally connected care as facilitated through connections and medicine; and strengthened governance from improved allocations of human and financial resources. Essentially, the program pays for building the Beni-Mellal Regional Hospital and Azilal Provincial Hospital; equipping the Fkih Ben Salah Provincial Hospital; renovating medical-technical equipment across the three regions; and increasing mobile and ambulance services for obstetric and emergency services. Such capital and equipment investments are expected to provide gains in service in the short term for increased hospitalization where need is greatest and increased neonatal screening services, while fostering longer-term systemic capacities.

Digital investment is not an afterthought; digitalized investments are leveraged outcomes. Expanding the Integrated Hospital Information System (IHIS) to primary care facilities and rural health dispensaries, plus equipping 100 landlocked facilities

¹¹⁶ See African Development Bank, Press Release, Morocco: African Development Bank mobilizes €120 million to expand access to healthcare (2023).

with telemedicine capabilities, serves to reduce distance from remote access points and delays in clinical care.¹¹⁷ The results framework translates these inputs into service delivery outcomes relative to an increase in-system anticipated hospitalization in prioritized areas and proxy indicators of treatment (i.e., antiretroviral therapy) coverage suggest that digitalized connections are predicted to facilitate treatment as well as continued care among traditionally underserved populations. Therefore, by linking disbursement to verified operation capacity and use; over resource distribution alone, this investment hedges “build-it-but-don't-use-it” risks that plague too many health infrastructure investments.¹¹⁸

Human resources are treated as the binding constraint, they often are. The program budgets positions across MSPS and territorial health groupings, strengthens continued retraining offerings, and increases graduation output from Higher Institutes of Nursing and Health Technology (ISPITS).¹¹⁹ Most importantly, the results matrix tracks the ratios and posting of generalists and nurses in rural and landlocked facilities, as there's an explicit tie between funding delivery and personnel presence where the infrastructure will be commissioned. This link from bricks-and-mortar to labor investment is critical to getting access-attributed investment justified, even more important for the female and rural household link when rooting for equity related pay-off from the program.

The presumed outcome payoff becomes an operational reality through seven Disbursement-Linked Indicators (DLIs) that function as quantifiable milestones towards social value creation. For example, two DLIs prioritize integrated care units for women-and-children within the commissioned spaces, inclusive of gender-based violence treatment within; the Guelmim Regional Hospital, plus the commissioning of units dedicated to women's and childcare within the Fkih Ben Salah Provincial Hospital. Other DLIs

¹¹⁷ See M. Jallalet et al., *Current State and Prospects of Telemedicine in Morocco: Analysis of Challenges, Initiatives, and Regulatory Framework*, 15 *Cureus* 50963 (2023).

¹¹⁸ See S. Languille, *The Politics of Results-Based Financing in Health: A Literature Review*, 15 *Global Public Health* 675 (2020).

¹¹⁹ See M. Benijane et al., *The Social Accountability of Nursing Training Institutes in Morocco: Case of ISPITS–Marrakech*, 21 *BMC Medical Education* 509 (2021).

order commissioning and equipping milestones sequentially for hospitals under construction, track installation times for required medical-technical devices ranked by importance, require telemedicine capabilities for care in landlocked primary care sites, and an Environmental-Social Action Plan (ESAP) DLI gets embedded. The mix of DLIs is closer to output process outcomes themselves or near outcomes themselves; they can be verified frequently as incentives throughout implementation exist to justify without support by a verifiable connection of what's ultimately important to those wanting to use the facilities: interconnectivity of care/availability of staffing.

Verification and oversight arrangements seek to minimize stakeholder concern over credibility surrounding “pay-for-results” promises delivered. The General Inspectorate of the Ministry of Health and Social Protection (IGMSPS) functions as the independent verifier of physical existence as it's geographically centered and regionally positioned to conduct reviews/document assessments/tours. Disbursement requests get made semi-annually pro rata toward verification; non-completed requests can be fulfilled down the line once complete, while any surplus not attested to via DLI verification will require reimbursement upon exit. The funds get dispersed through the Treasury Single Account at Bank Al-Maghrib once fiduciary risk linked to fund flow is assessed as low within broader state public financial management systems. In terms of implementation, these aspects mean that loan allocation occurs only when what the system can demonstrate (and verify through documentation) manifests as applied utility and service provision opportunity.

The appraisal anticipates social benefits that are rather implicit. By expanding capacity in poorer regions, operationalizing where previously lacking plus connected avenues of advanced-level care, PAAIS is presumed to increase opportunity for service utilization among populations where baseline access is low; improve maternal-health outcomes among specialized access points or better referral procedures for complicated situations; decrease private costs of care (emphasizing travel/time costs) for rural households; connect inputs to tracked outcomes assessed systemically (hospitalization rates, neonatal screening rates, staffing ratios) so that progress can be evidenced through comparable means/performance management/accountability

applied from budget programming; up-surface environmental/social metrics, gender tagging, trained obligations forecasted to validate gain quality/sustainability so program-mindful benefits can get consolidated into more resilient health systems ¹²⁰.

PAAIIS shows how SOC logic can be integrated into a country's public financing and public law system without importing the investor vehicles of private law. The instrument's conditions precedent, monitoring obligations, pro-rata distribution principles, and repayment responsibilities read as a nuanced blend of public finance legality and contractual obligation, while its gender- and socially-equalization prioritized distribution makes the financing relevant to socioeconomic rights. If one were to distinguish what makes SOC different from other traditional lending, however, the case in Morocco illustrates that repayment obligation comes after the result is confirmed, not before.

Beyond quantitative results, the PAAIIS has also highlighted strategic lessons relevant for future policy. In particular, it has shown the importance of linking the disbursement of public funds to verifiable results, to ensure effectiveness and accountability in public spending; the need to integrate health infrastructure planning with human resource planning, to guarantee service operability and continuity; the strategic value of digitalization as a lever for territorial equity and access to care, especially in rural and remote areas; the importance of preventing the risk of unused infrastructure through “pay-for-results” mechanisms tied to actual utilization and operational capacity; the possibility of adopting innovative Social Outcome Contracting (SOC) approaches within the public legal and financial framework, without resorting to private law instruments; the crucial role of independent verification within public administration to strengthen program credibility and transparency; the contribution of environmental, social, and gender components to ground investments in a logic of sustainability and inclusion.

¹²⁰ See African Development Bank, Press Release, Morocco: African Development Bank mobilizes €120 million to expand access to healthcare (2023).

5.2. Results-based financing of water and energy infrastructure

This Section examines two emblematic applications of results-based financing in the water and energy sectors—illustrating how performance-linked disbursement mechanisms can enhance accountability, operational efficiency, and impact orientation in large-scale infrastructure programmes. Through the analysis of the Jordan Water Security and Climate Adaptation Project (Section 5.2.1) and the Rwanda Energy Results-Based Financing Program (Section 5.2.2), the discussion highlights how multilateral development banks are increasingly shifting from input-driven to outcome-driven financing models. These cases provide insights into the opportunities and limitations of results-based approaches, particularly with respect to institutional strengthening, verification systems, and the evolving—but still limited—role of communities within the governance of essential services.

5.2.1. The Jordan Water Security and Climate Adaptation Project

The Jordan Water Security and Climate Adaptation Project, financed by the European Investment Bank (EIB) under a results-based loan scheme, is a major infrastructure initiative developed in response to the acute and growing water crisis in Jordan. In fact, Jordan is currently among the most water-scarce countries in the world, with renewable water resources far below the global threshold for severe scarcity¹²¹. Moreover, this situation has been aggravated by a combination of factors, such as rapid population growth, intensified by successive waves of refugees from neighboring conflict zones, particularly Syria, increasingly erratic precipitation and declining groundwater resources¹²².

In response to this critical context, the Government of Jordan launched a long-term strategic effort to improve the resilience and efficiency of the water sector. The proposed solution entails a comprehensive investment programme focused on increasing access to reliable water supply, improving sanitation services, and

¹²¹ See United Nations, *Policy Brief. Decentralized Wastewater Treatment Systems (DWATS) as a Climate Change Adaptation Option for Agriculture in Jordan* (2022).

¹²² S.M. Gorelick, J. Yoon, C. Klassert, *Avoiding Crisis in Jordan's Tenuous Water Future* (2021).

reducing non-revenue by enhancing the efficiency of water networks and the accuracy of metering systems.

This led to the formulation of the Jordan Water Security and Climate Adaptation Project, a €1 billion programme financed by multiple development partners, with the EIB playing a central role by providing a €450 million loan over 30 years. EIB financing is structured as a results-based loan, making it the first application of such a financing model in the water sector globally by the EIB¹²³. The agreement was officially signed in July 2024¹²⁴.

Unlike traditional infrastructure loans, which disburse funds based on procurement stages or expenditure claims, the results-based model ties disbursement to the verified achievement of specific development results. In this case, the Ministry of Finance of Jordan serves as the legal borrower, while the Ministry of Water and Irrigation (MWI) is the main implementing entity. A dedicated Delivery Unit within the MWI oversees the planning, coordination, and monitoring of the project. The operational execution of the programme is delegated to four key water utilities, which are responsible for the concrete implementation of a wide range of small- to medium-scale sub-projects across the country, such as infrastructure rehabilitation, network expansion, smart metering deployment, and service-level improvements.

The project is structured around four core results areas: the reduction of non-revenue water (NRW), the expansion of sustainable water supply, improvements in the operational efficiency of utilities, and enhancements in the quality and coverage of sanitation services¹²⁵. The EIB disburses its financing in tranches that are only released upon verification that these predefined performance targets have been achieved¹²⁶. The available documentation confirms that each disbursement is explicitly linked to independently verified progress in one or more of these results areas¹²⁷.

For instance, a tranche of the loan may be released once a utility demonstrates, through audited operational data, that it has

¹²³ European Investment Bank, *Jordan Water Security and Climate Adaptation* (2024).

¹²⁴ Cf. previous note.

¹²⁵ European Investment Bank, *Environmental and Social Data Sheet*, (2023).

¹²⁶ See European Investment Bank, *€400 million EIB backing for water security and climate adaptation across Jordan* (2024).

¹²⁷ See previous note.

reduced water losses in a specific district by a defined percentage, or once service coverage has expanded to a certain number of households. These outcomes must be verified by the Delivery Unit and validated according to performance indicators agreed upon in the financing agreement¹²⁸. This conditionality introduces a performance-based discipline into the financing arrangement, thereby aligning financial flows with the actual delivery of public value.

In terms of community involvement, the project adheres to the EIB's environmental and social standards, which require stakeholder consultation and the implementation of mitigation measures to address any adverse social or environmental impacts. Nevertheless, there is no formal framework for community stewardship within the governance of the infrastructure itself; the role of citizens remains limited to that of service recipients and consultees, rather than co-managers or decision-makers.

In conclusion, the Jordan Water Security and Climate Adaptation Project constitutes an innovative example of results-based infrastructure financing in the water sector and is emblematic of the European Investment Bank's evolving approach towards outcome-driven development finance. By linking disbursement to the attainment of verified performance indicators - rather than traditional input- or expenditure-based models - the project reflects a strategic shift in the Bank's financing paradigm, aimed at enhancing institutional accountability and operational efficiency. The project introduces a performance-oriented framework, consistent with results-based financing principles, but less prominence is given to community engagement in terms of stewardship or participatory governance, with the local population primarily positioned as beneficiaries rather than active co-managers of infrastructure or service delivery.

5.2.2. The Rwanda Energy Results-Based Financing Program

The Rwanda Energy Results-Based Financing Program represents a significant advancement in the country's efforts to expand access to clean, reliable, and affordable energy services while promoting institutional strengthening and environmental

¹²⁸ European Investment Bank, *Environmental and Social Data Sheet* (2023).

sustainability¹²⁹. Developed within the broader framework of Rwanda's national energy policy, particularly the Energy Sector Strategic Plan (ESSP II 2024-2029), the program addresses the critical need to meet the increasing energy demand driven by rapid population growth, urbanization, and socio-economic development¹³⁰. Rwanda's commitment to achieving universal electricity access by 2029, coupled with ambitious goals for clean cooking solutions and reduction of greenhouse gas emissions, provided the foundational context for the development of the initiative.

The program is co-financed by two major multilateral development banks: the African Development Bank (AfDB), serving as the lead financier, and the Asian Infrastructure Investment Bank (AIIB). Together, these institutions have committed significant financial resources, totaling approximately €260 million, to support Rwanda's energy transition over a projected five-year implementation period¹³¹. This scale of financing, coupled with the results-based design, marks the initiative as one of the most strategically important energy sector investments in the country.

What distinguishes the Rwanda Energy Results-Based Financing Program as a case of results-based financing is the conditionality embedded in the disbursement of funds. Unlike traditional investment models that release funds based on inputs or procedural milestones, this program ties financial disbursements directly to the achievement of predefined, measurable outcomes. These outcomes encompass a variety of dimensions, including the expansion of electricity access through both grid and off-grid connections, the deployment of clean cooking technologies to reduce dependence on polluting fuels, and the reinforcement and rehabilitation of critical energy infrastructure such as substations and distribution networks. The program further emphasizes the strengthening of institutional capacities within Rwanda's energy sector agencies, notably the Rwanda Energy Group and its

¹²⁹ Asian Infrastructure Investment Bank, *Rwanda: Rwanda Energy Results-Based Financing Program* (2025).

¹³⁰ African Development Bank, *African Development Bank approves financing to advance Rwanda's universal energy access* (2025).

¹³¹ African Development Bank, *African Development Bank approves financing to advance Rwanda's universal energy access* (2025).

subsidiaries, which are responsible for the operational delivery of the project components.

This performance-oriented financing model incentivizes efficiency, accountability, and tangible improvements in service delivery. The verification of results shall be conducted through monitoring mechanisms, whereby progress is assessed against specific, quantifiable targets. These include connection targets for households and productive users, infrastructure enhancement milestones, and environmental and social performance indicators. Only upon the independent validation of these achievements are tranche payments released, ensuring that funds are directly linked to demonstrated impact rather than mere expenditure¹³².

Community involvement, while incorporated as part of the program's environmental and social safeguards, primarily takes the form of stakeholder consultations and grievance redress mechanisms. These provisions ensure that affected populations are informed and able to express concerns during project implementation, reflecting adherence to international standards for social and environmental responsibility¹³³. Vulnerable groups, such as female-headed households, are explicitly targeted for benefit, underscoring a commitment to social inclusivity. However, the program does not seem to have formally institutionalized community stewardship or participatory governance models within its core operational framework. Instead, the role of the community is predominantly that of service recipients and consultees rather than active co-managers or stewards of energy infrastructure.

In summary, the Rwanda Energy Results-Based Financing Program exemplifies a sophisticated and forward-looking approach to development finance in the energy sector. By aligning financial flows with verified performance outcomes, the program fosters greater accountability, incentivizes efficient implementation, and contributes to Rwanda's sustainable development objectives. Although community engagement is recognized and facilitated, the program's governance structure

¹³² African Development Bank, *African Development Bank approves financing to advance Rwanda's universal energy access* (2025).

¹³³ African Development Bank, *African Development Bank approves financing to advance Rwanda's universal energy access* (2025).

centers on institutional actors, with limited formal mechanisms for community stewardship.

6. Towards a New Planning State or a New Investment State?

The recognition of the profound and interrelated crises shaping our time—alongside the market’s frequent inability to generate territorially and socially acceptable or desirable solutions—highlights the need for a renewed role of the State and public authorities in the economy. This is particularly urgent given the pervasive challenges posed by technological advancement, the exploration and use of aerospace technologies, and the imperative to accelerate the ecological transition by swiftly transforming unsustainable models of production and consumption through innovative means.

In this context, industrial policy must return to the center of governmental and regional agendas, including that of the European Union. This entails two main objectives. First, to overcome the current fragmentation of sectoral policies and planning instruments, especially in the fields of environment, energy, innovation, territorial cohesion, and, more recently, defense. Second, to develop coherent and integrated strategies that combine direct public intervention with indirect steering of economic activity, enabling public authorities to effectively address collective and systemic challenges.

Such challenges—due to their scale and complexity—demand a strategic and coordinated response capable of guiding economic development in a direction consistent with the core values protected by democratic legal systems. Therefore, industrial policy should serve as the central coordinating framework, aligning various sectoral strategies and anticipating future transformations in economic dynamics. This includes fully harnessing social, environmental, and technological innovation to promote inclusive and democratic development, while ensuring that the social dimension of sustainability—often overlooked in recent EU economic programming—is not left behind.

The new “planning State” and the renewed trajectory of industrial policy must be explicitly oriented towards the achievement of concrete outcomes. It is, in fact, the very necessity

of attaining desirable results—in terms of justice, democratic legitimacy, and sustainability—that justifies the intervention of public authorities and their capacity to steer economic dynamics. These outcomes must be multidimensional, generating a plurality of benefits across all dimensions of sustainability (economic, social, and environmental). Ultimately, such benefits should accrue to the populations directly or indirectly affected by public interventions, and to their various sub-groups, according to principles of justice and equity, and through democratically determined processes. Particular attention must be given to addressing the needs of vulnerable communities, ensuring that no group is left behind.

As such, outcomes become the central benchmark by which the legitimacy and effectiveness of the new planning State must be assessed. The success of public action must be evaluated on the basis of its ability to deliver meaningful and measurable results. This approach finds clear institutional support in the most recent legislative reforms. Notably, the new Italian Public Procurement Code (Legislative Decree No. 36/2023) enshrines the “principle of the outcome” (*principio del risultato*) in its very first article. This signals a paradigm shift consistent with a transformative vision of the State’s role in the economy: public demand—for goods, services, and works, or for the awarding of concessions—must be designed not merely to comply with formal legal procedures, but to effectively pursue the underlying public interest, in full respect of legality and the rights protected by the legal system, yet beyond a merely formalistic approach¹³⁴. As a prominent scholar has argued, the principle of the outcome should guide administrative action toward the concrete interests of the community, ensuring that public contracts deliver not only the works or services specified in the tender, but also timeliness in the awarding and execution

¹³⁴ See Cons. Stato, Sec. VII, 1 July 2024, No. 5789: the case concerns the application of the principle of outcome (*principio del risultato*) in a tender procedure (launched, moreover, under the previous regulatory framework); the decision established that the contracting authority should not have simply excluded a bidder due to the submission of the offer through means other than those prescribed in the tender notice, in light of the malfunctioning of the platform indicated by the administration. In doing so, it condemned the merely formalistic approach adopted by the administration, emphasizing the public interest in ensuring the broadest possible participation in the procedure.

phases, and the best possible value for money¹³⁵. Moreover, the same scholarly interpretation emphasizes the evolving multipurpose nature of public contracts, which are now understood as functional tools capable of serving multiple policy goals¹³⁶. In this context, public procurement can and should be used to stimulate market supply toward virtuous outputs, aligned with broader sustainability objectives—not only economic, but also social and environmental¹³⁷.

Returning to the evolving paradigm of public economic action, the shift toward outcome-orientation necessitates a move away from rigidly legalistic or formalistic approaches, in favor of more managerial and performance-driven methods in both strategy formulation and the management of contractual instruments used to achieve policy objectives. This transformation compels a critical reflection on the current state of public administration competencies and organizational structures.

It becomes essential that public officials internalize a proactive and results-oriented mindset, focused more on the attainment of tangible outcomes than on mere compliance with procedural formality or the avoidance of personal liability. In parallel, the ability to manage complex, multi-stakeholder partnership tools—the policy toolkit outlined in Section 4.1—emerges as a core competency.

This is no trivial task. It requires comprehensive training programs and the dissemination of technical expertise, ideally supported through institutional partnerships with knowledge actors such as universities and research centers, whose domain-specific expertise equips them to support public authorities in the design and deployment of innovative instruments.

A further, closely related dimension concerns the management of intellectual property (IP) generated in the execution

¹³⁵ A. Sandulli, *Il principio del risultato quale criterio interpretativo e applicativo*, 2 *Dir. pubbl.* 349 (2024).

¹³⁶ Refer to the previous note.

¹³⁷ In general, on strategic public procurement see H. Handler, *Strategic Public Procurement: An Overview* (2015); G.M. Jimeno Feliu, *Public Procurement as a Strategy for the Development of Innovation Policy*, G. Racca, C.R. Yukinis (eds.), *Joint Public Procurement and Innovation*, Bruxelles, Bruylant (2019); Id., *Compra pública estratégica*, J. Pernas García (ed.), *Contratación pública estratégica* (2013); A.S. Patrucco, K. Kauppi, C. Di Mauro, F. Schotanus, *Enhancing Strategic Public Procurement: A Public Service Logic Perspective*, *Pub. Management Rev.* 1 (2024).

of such partnerships. Public authorities must develop the capacity to appropriately calibrate the attribution and governance of IP rights – taking into account the nature of the contract, the sector of intervention, and the quality and type of actors involved. In some cases, it may be appropriate to make such IP publicly accessible, especially to relevant scientific or applied communities, with a view to its broader social utility and future societal applications.

Moreover, an outcomes-oriented planning State must be equipped with clear and reliable metrics capable of capturing the multifactorial impacts of its interventions. The JuSIIIA tool, discussed in sub-section 4.2, is designed precisely for this purpose: to enable robust and verifiable measurement of the multifaceted impacts of investments. This allows policymakers and investors alike to monitor and assess the effectiveness of industrial policy measures, ensuring alignment between actual outcomes and pre-defined objectives, as well as the legal and constitutional values that underpin public economic intervention. At the same time, such metrics offer a means of evaluating the democratic legitimacy and social justice of public action – facilitating timely recalibration when necessary.

In this process, it is vital to valorize the role of local communities and individual citizens, both to ensure that public decisions reflect the needs of affected populations, and to guard against the capture of policy processes by entrenched bureaucratic or economic interests. This is key to overcoming the informational asymmetries and the disconnect from lived realities that have historically undermined the effectiveness of public programming.

Citizens, in this respect, can and should play a stewardship role, acting as guardians of the democratic legitimacy and social equity of public action. Their function as countervailing powers must be both recognized and institutionally safeguarded.

Recent experiences with outcome-based and results-based financing – particularly in the domains of social outcome contracting and large-scale infrastructure development (e.g., in the water and energy sectors) – highlight that non-profit banks (NPBs) are currently among the most capable and willing actors to implement such financial schemes. These institutions represent key players in the renewed course of industrial policy, whose role must be fully acknowledged and reinforced. As patient investors, NPBs are well positioned to mobilize both public and private capital –

while catalyzing further private investment—toward socially significant initiatives such migrant integration and improvement of hospital services and of territorial socio-health care provision (as illustrated in sub-section 5.1), as well as strategic infrastructure projects essential to quality of life and the energy transition (as illustrated in sub-section 5.2.). Within the framework of outcome-oriented public policies, the cases of KOTO-SIB in Finland and PAAIIS in Morocco represent significant examples of how financial instruments based on social objectives can generate concrete and measurable impacts. Although they adopt different models, both effectively demonstrate how the direct linkage between funding and verifiable results can improve the efficiency and accountability of public spending.

The KOTO-SIB project focused its intervention on the labor market integration of migrants, significantly improving stable employment for this population compared to traditional approaches, while also generating substantial public savings. This success was supported by a flexible approach, collaboration between the public and private sectors, and a monitoring system based on clear and shared indicators, making the model replicable in other national and European contexts.

The PAAIIS program, on the other hand, demonstrated how a sovereign-level Social Outcome Contract can support the transformation of the health system, enhancing equity and resilience. By linking the disbursement of funds to the achievement of measurable objectives—such as increased access to healthcare services and digitalization of infrastructure—the project ensured effective use of human and technological resources, preventing the risk of unused infrastructure. Transparency and credibility were guaranteed by rigorous independent verification, while the inclusion of environmental, social, and gender criteria strengthened the sustainability and social impact of the investment.

These two cases highlight how the adoption of innovative financing instruments, capable of mobilizing patient capital oriented toward social missions, represents a strategic lever to strengthen public policies, improve service quality, and promote sustainable and inclusive development.

Such services and infrastructure are often characterized by high social value but low immediate market returns, making it infeasible for traditional private or even public actors to absorb the

full cost of delivery. The case studies analyzed reveal how non-profit banks, acting as long-term investors, are able to mobilize and intermediate private capital, channeling it towards investments capable of generating multidimensional impacts through results-based or outcome-based financing schemes. The operations in question link the payments to the verified achievement of outcomes and the creation of societal value. Across all cases examined, the contribution of non-profit banks emerges as pivotal in enabling governments to address priority challenges. Their involvement supports the emergence of a new planning State, which assumes responsibility for social issues and thus more active intervention in the economy.

In this broader evolution of the planning State, an essential yet often overlooked dimension concerns the role of long-term institutional investors—pension funds, insurance undertakings, professional schemes, and other asset owners—whose investment decisions crucially shape the effectiveness of public policies¹³⁸. The Italian experience of the *Casse di previdenza*, examined in the legal literature as autonomous, community-rooted institutions, shows that these entities act not merely as financial intermediaries but as custodians of collectively generated capital. Their assets derive from the contributions of today's workers—resources that ensure both present pensions and the accumulation of reserves for future entitlements—as well as from the premiums and savings entrusted by insured persons and policyholders. These resources correspond to a vast socio-economic community that includes vulnerable groups today (pensioners, insured populations) and those who may become vulnerable tomorrow (current contributors and savers). Recognizing this, the governance of asset owners must increasingly reflect their societal function: safeguarding intergenerational welfare while supporting the economic, territorial and social ecosystems on which such welfare ultimately depends¹³⁹.

¹³⁸ On this topic see among others: L. A. Bebchuk, Scott Hirst, *Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy*, 119 *Harvard Law Review* 202 (2019); J. E. Fisch, A. Hamdani & S. D. Solomon, *The New Titans of Wall Street: A Theoretical Framework for Passive Investors*, ECGI Law Working Paper No. 499/2019.

¹³⁹ On the Italian experience see C. Iaione, P. Fersini (eds.), *Le Casse di previdenza tra autonomia e responsabilità I professionisti, il risparmio, l'economia reale* (2017).

A convergent strand of international scholarship¹⁴⁰ argues that asset owners cannot pursue financial returns in isolation from social and environmental outcomes. Because their beneficiaries' long-term welfare depends on stable societies and functioning ecosystems, asset owners necessarily manage what literature defines as societal capital: resources whose value is co-determined by the resilience of communities, ecological stability, and inclusive economic development. Under this view, capital allocation can no longer be insulated from social and environmental outcomes, since these systemic conditions ultimately shape the prosperity of contributors, policyholders, and savers. Asset owners are therefore called upon to operate not only as risk-adjusted yield maximizers but also as enablers of mission-oriented innovation, investing in real-economy projects, venture-oriented initiatives, and regional development strategies capable of generating structural transformation.

This perspective aligns with the outcome-orientation at the core of JuDISIP: both frameworks require that financial flows be justified by their measurable capacity to produce multidimensional public value. Regulatory developments across Europe reflect this systemic shift. Several Member States have adopted reforms encouraging pension funds and insurance entities to expand their exposure to infrastructure, innovation, and productive investment.

A notable example is the recent German Infrastructure Allocation legislation, which allows regulated pension investors to dedicate a fixed share of restricted assets to infrastructure financing, thereby widening their risk-investment capacity and explicitly steering capital toward long-term productive sectors¹⁴¹.

¹⁴⁰ See G. Serafeim, *Investors as Stewards of the Commons?*, cit. at. nt. 100; D. Schoemaker, W. Schramade, *A real economy approach to integrated investing and portfolio management*, in J. Lukomnik, W. Burckart (eds.), *Handbook of System-Level Investing*, forthcoming; C. B. Casady, A. Monk, *The logic of net zero investment portfolios: positioning long-term investors for financial outperformance*, *Journal of Sustainable Finance & Investment* 1–27 (2025); G.L. Clark, T. Hebb, *Why Should They Care?*, *The Role of Institutional Investors in the Market for Corporate Global Responsibility*, 37 *Environment and Planning A: Economy and Space* 2015–2031 (2005).

¹⁴¹ A.L. Stranne Petersen, *Why private infra may – eventually – benefit from new German initiatives*, April 2025, available at <https://www.infrastructureinvestor.com/why-private-infra-may-eventually-benefit-from-new-german-initiatives/>

Similar legislation has been introduced in France through the PACTE Law (Action Plan for Business Growth and Transformation) enacted in May 2019¹⁴². Along the same line in Italy the legislation on public contracts and that on venture capital is increasingly looking at asset owners as main drivers of the investment on the real economy¹⁴³.

Taken together, these evolutions suggest the emergence of a new investment State rather than a new planning State – a governance architecture in which public long-term investors (such as the EIB, KfW, Caisse des Dépôts, CDP and ICO), who have historically driven mission-oriented development, cooperate systematically with asset owners acting as fiduciaries of societal capital. Only through such structured cooperation can industrial policy achieve the democratically defined outcomes required for a just, sustainable, and territorially balanced transition.

In this context, multi-stakeholder governance, systematization of best practices, alignment with coherent and democratically established industrial policy strategies, and transparent, participatory decision-making become essential. This new model of investing calls for the institutionalization of multi-stakeholder partnerships, with an explicit role for communities as democratic counterbalances, ensuring transparency, accountability, and alignment with the public good. This may require dedicated legislative action mandating democratic governance frameworks for key institutional actors (including NPBs), transparency in investment decision-making, and mechanisms for public oversight based on pre-defined impact criteria.

7. Conclusions

Just, Democratic, Innovative, and Sustainable Industrial Planning represents the strategic direction towards which the renewed planning State or the larger new investment State should

¹⁴² JPMorgan, *A Private Market Boom in French Pension Funds Boosts Yield and Impact Investments*, November 2025, available at

<https://www.jpmorgan.com/content/dam/jpmorgan/documents/cib/securities-services/Private-Market-Boom-in-French-Pension-Funds-English.pdf>

¹⁴³ See article art. 33 of the Competition Law (Law no 193 of 16 December 2024) which introduced a mandatory requirement to invest on Venture Capital to get the tax incentive foreseen for investments on real economy (L. 232/2016).

orient its action. Its renewed protagonism in economic dynamics must be capable of effectively steering entrepreneurial initiatives and mobilizing both public and private financial resources toward the pursuit of multidimensional impacts, generating tangible and measurable benefits for society at large.

In this perspective, insights from studies on economic democracy and collective economic action underscore the need to establish participatory processes of consultation and continuous validation of initiatives with the communities concerned, including vulnerable groups. This is essential in order to construct countervailing powers capable of broadly ensuring that public economic choices are responsive to societal and territorial needs. Such an approach moves beyond sectoral visions that attempt to implement transitions while disregarding fundamental rights and legitimate interests, or, more simply, neglecting the impact of such transitions on people's quality of life.

In other words, the innovation prompted by crises and transitions—and by the need to address them—must be democratically directed to serve society. This requires building upon existing virtuous models and enhancing their configuration where appropriate.

Within this framework, it is crucial to continue monitoring the financing initiatives of non-profit financial institutions, such as the European Investment Bank (EIB) and the African Development Bank (AfDB), which have adopted outcome-based and results-based financing schemes. These mechanisms are capable of mobilizing and aligning significant public and private financial resources toward social or infrastructural projects that generate a plurality of measurable impacts—ensuring that disbursements occur only after impartial and objective verification of alignment with the predetermined outcomes and results.

Such schemes should be further implemented by National Promotional Banks (NPBs), whose decision-making processes must, however, be fully transparent and democratic. They should reflect the needs expressed by relevant communities, which ought to be allowed to submit expressions of interest for the subsequent activation of procedures aimed at identifying appropriate solutions. These could follow frameworks comparable to project finance models.

The development of these practices and models should be supported and enabled by the new industrial policy, which should anticipate their adoption and scaling across other public administrations engaged in economic governance through public demand. This is by no means a straightforward process: it requires gradualism, improvements on existing frameworks, and the valorization of successful cases. The objective is to foster spillover effects, encouraging the emulation of effective approaches and fully leveraging the legal, contractual, and financial toolkit available to public authorities.

Nonetheless, to avoid regression, confusion, or ineffectiveness, it is crucial to maintain a strong focus on results. To this end, the *new planning state* must increasingly link the disbursement of *scarce financial resources* to the actual achievement of predefined objectives. It must therefore equip itself with robust impact assessment tools, capable of appropriately capturing the added value and multidimensional impacts that renewed public intervention in the economy must necessarily aim to deliver.

THE EVOLVING LANDSCAPE OF ESG REPORTING IN UTILITIES: CHALLENGES AND FUTURE DIRECTIONS

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Abstract

This study examines the evolution of ESG reporting in the utilities sector, a field increasingly scrutinized for its environmental, social, and governance impacts. As global awareness of sustainability challenges grows—and regulatory frameworks such as the EU’s NFRD and CSRD strengthen disclosure requirements—utilities are pressured to enhance the transparency of their ESG practices. The research evaluates how companies respond to these demands by analyzing three dimensions of their sustainability reports: integration with financial statements, modes of presentation (text vs. graphics), and overall length. Based on a sample of 16 utilities, the study compares data from 2023 with findings from 2021. Preliminary expectations point to progress in the integration of sustainability information, improved clarity, and more concise reporting. Nonetheless, the analysis highlights methodological limitations, including the restricted sample size and the need for complementary qualitative approaches. The study concludes that utilities must further strengthen the transparency and standardization of their ESG reporting to more effectively communicate their commitments and performance in the transition toward sustainability.

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1. Introduction

In recent years, Environmental, Social, and Governance (ESG) factors have become a central issue for companies, policymakers, academics, and international organizations. These factors have not only garnered increasing attention from stakeholders but have also become a key reference point for evaluating corporate performance in the context of a growing sensitivity to sustainability¹.

Climate change and the COVID-19 pandemic have further emphasized the need to steer the economy towards more sustainable practices, highlighting the importance of growth that considers not only the economic aspect but also the social and environmental dimensions.

In this context, private companies play a crucial role in achieving sustainable development goals, especially with regard to the responsible management of natural resources and adherence to social and governance standards. To address these needs, many companies have begun reporting on their sustainability commitments, increasingly aligning with international reporting frameworks such as the GRI (Global Reporting Initiative) standards or integrated reporting. At the same time, some jurisdictions, like the European Union, have introduced mandatory reporting requirements, such as the Non-Financial Reporting Directive (NFRD) and the Corporate

¹ S. Sarti, N. Darnall & F. Testa, *Market segmentation of consumers based on their actual sustainability and health-related purchases*, 192 J. Cleaner Production 270-280 (2018); M. J. Rhodes, *Information asymmetry and socially responsible investment*, 95 J. Business Ethics 145-150 (2010).

Sustainability Reporting Directive (CSRD), obliging companies to disclose ESG information transparently and coherently.

This research fits within this growing focus on sustainability reporting, with a specific focus on ESG reporting practices within the utility sector. The utility sector is particularly interesting as companies in this industry, which provide essential services such as energy and water, are at the heart of the sustainability debate. Their operations have a direct impact on both the environment and local communities.

The research aims to explore how utilities approach ESG reporting and how these practices are influenced by global challenges related to climate change, resource management, and increasingly stringent regulations.

The study adopts a qualitative approach based on content analysis to examine ESG reports of utilities. The goal is to assess the structure and quality of ESG disclosures, focusing on three key indicators: (1) the integration of ESG reports into corporate financial statements, (2) the method of representing information (text versus graphics), and (3) the overall length of the reports. This study expands and updates the results of a previous work conducted in 2021, which was based on a sample of 15 utilities, now expanding the analysis to 16 utilities registered in 2023, with a particular focus on comparing the data collected in 2021 with the more recent data.

This research offers an important opportunity to understand how utilities are adapting to new challenges and regulatory requirements concerning sustainability and social responsibility, and how their reporting practices may evolve to improve the transparency and reliability of disclosed information. Ultimately, the work aims to contribute to a better understanding of ESG reporting dynamics in the utility sector, exploring the opportunities and challenges that companies face in aligning their business models with global and local sustainability needs.

To provide the reader with a clear understanding of the structure of the study, the article first presents a literature review that outlines the theoretical foundations of ESG reporting and the distinctive role of the utilities sector, before moving on to illustrate the methodology adopted for selecting the sample and analyzing the

reports; it then discusses the key findings emerging from the comparative assessment of the documents, while the concluding section synthesizes the main insights and offers final reflections, highlighting the implications of the research and potential directions for future studies.

2. Literature review: definition of ESG reporting

ESG stands for Environmental, Social, and Governance. It is a comprehensive framework used to evaluate the sustainable and ethical behaviour of businesses². These criteria aim to ensure that companies are socially responsible and accountable, which significantly benefits both investors and stakeholders. The ongoing and accelerating climate change has intensified global attention on sustainable enterprise practices³. To address these challenges, many countries have introduced standards for ESG reporting, particularly targeting companies with high pollution levels. These standards provide guidelines for understanding and applying sustainability principles in business operations⁴.

ESG encompasses three primary areas. The Environmental dimension focuses on how a business impacts nature, including climate change, pollution, biodiversity, resource use, and the circular economy. The Social dimension examines the business's relationships with employees, suppliers, customers, and affected communities, covering workforce protection, value chain workers, and consumer rights. Lastly, the Governance dimension evaluates internal policies

² Eur. Parliament, *Environmental, Social and Governance (ESG) rating activities: Regulation on their transparency and integrity* (2024), available on the website: <https://www.europarl.europa.eu/legislative-train/theme-an-economy-that-works-for-people/file-esg>

rating#:~:text=Environmental%2C%20Social%20and%20Governance%20(ESG)%20rating%20activities%20play%20an,risk%20management%20on%20ESG%20factors.

³ W. Yu, Y. Gu & J. Dai, *Industry 4.0-enabled environment, social, and governance reporting: A case from a Chinese energy company*, 20 *J. Emerging Technologies in Accounting* 245-258 (2023).

⁴ B. Burgemeestre, J. Hulstijn & Y. H. Tan, *Norm emergence in regulatory compliance*, in M. Xenitidou, B. Edmonds (eds.), *The complexity of social norms* 123-139 (2014).

such as tax strategies, executive remuneration, anti-corruption measures, diversity, and organizational structure⁵.

Implementing ESG initiatives enables businesses to reduce emissions, manage risks, and explore profitable opportunities. Investors and stakeholders, in turn, use ESG performance to evaluate a company's alignment with their values⁶.

Despite its importance, ESG reporting presents several challenges, including data collection, standardization, stakeholder expectations, and the complexity of long-term sustainability goals.

The key issue is the measurement and aggregation of ESG data, as determining the value of each ESG dimension and integrating it into corporate reporting remains complex. Studies suggest that there is a fundamental need for systematic reporting to support decision making⁷. Relatedly, there is no universal standard for ESG reporting, which can lead to inconsistencies across companies. Investors, regulators, and other stakeholders often find it difficult to compare the ESG performance of different utilities because they may use different metrics, methodologies, or even voluntary disclosures.

In addition, balancing short-term profitability with long-term sustainability goals can be a delicate issue, since the constant pressure to deliver short-term financial performance can sometimes conflict with long-term sustainability initiatives, such as investing in green technologies or reducing carbon footprints. These investments often require significant upfront costs, with returns that may not be realized for years. The challenge is to find ways to align financial goals with ESG priorities without compromising one for the sake of the other⁸.

⁵ L. Becchetti, E. Bobbio, F. Prizia & L. Semplici, *Going deeper into the S of ESG: a relational approach to the definition of social responsibility*, 14 *Sustainability* 9668 (2022).

⁶ McKinsey & Company, *Five ways that ESG creates value* (2019), available on the website: <https://www.mckinsey.com>.

⁷ R. Gray, R. Kouhy & S. Lavers, *Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure*, 8 *Acct. auditing & accountability j.* 47-77 (1995).

⁸ Zoe Talent Solutions, *Balancing short-term profitability with long-term sustainability in business management* (2023), available on the website: <https://zoetalentsolutions.com/balancing-short-term-profitability-with-long-term-sustainability-in-business-management/>.

In Europe, the regulatory framework for sustainability reporting has progressively evolved from voluntary practices to a system of mandatory disclosure requirements. Initially, companies were encouraged to publish ESG information on a voluntary basis, independently deciding which aspects to report on. While this flexibility allowed organizations to tailor their disclosures to their strategic priorities, it also generated significant heterogeneity in formats, metrics, and scope, making comparisons across firms difficult.

To enhance consistency and increase transparency, the European Union introduced a more structured approach by establishing common requirements based on unified sustainability standards. These rules oblige companies to disclose information on environmental, social, and governance aspects, ensuring that key issues – such as environmental impact, human rights, anti-corruption policies, and supply chain practices – are addressed in a clear and comparable manner.

A central element of the current regulatory framework is the principle of double materiality, which requires companies to explain both how sustainability issues affect their performance and how their activities impact the environment and society. Reporting must therefore cover not only the company's operations and workforce but also the practices of partners and suppliers across the entire value chain.

National regulations have progressively aligned with this European framework, introducing adjustments to ensure companies have realistic timelines for compliance. Within this context, the most recent provisions introduced by the so-called *Stop the Clock Directive* play a key role, as they modify the implementation schedule and further clarify the obligations associated with sustainability reporting. These updates acknowledge the complexity of the reporting requirements and the need for companies to have adequate time and resources to implement them effectively.

Overall, the shift toward mandatory and standardized reporting aims to strengthen the reliability, comparability, and

transparency of ESG information across the European corporate landscape.

In its role of helping investors identify and avoid potential risks, companies that fail to address ESG issues can face fines, reputational damage or customer boycotts. Indeed, companies adhering to ESG standards often exhibit proactive and sustainable management, which can promote stable growth and at the same time, deliver more predictable and resilient returns as these companies anticipate economic and regulatory shifts. Also institutional investors, such as pension funds or insurers, face increasing pressure to adopt responsible practices.

The adoption of ESG strategies has become essential for companies seeking to align with global sustainability standards and respond to the growing expectations of investors, consumers, and other stakeholders. Whether driven by increasingly stringent regulatory requirements or voluntary initiatives, ESG reporting not only promotes transparency and accountability but also contributes to long-term value creation, enhancing corporate reputation, reducing risks, and facilitating access to more competitive capital. In this context, ESG reporting becomes a key strategic tool for integrating sustainability principles into business decisions and ensuring a positive impact on the environment, society, and governance⁹.

2.1 The role of utilities sectors

The Utilities Sector is considered a crucial component of the economy since it encompasses companies responsible for providing essential services that sustain everyday life, including water, electricity and natural gas, as well as public services in general. According to some considerations these services are increasing as human needs evolve, such as telecommunications can now also fall under this umbrella, or even transport and postal services¹⁰. This sector ensures

⁹ M. Finger & M. Rosenboim, *Going ESG: The economic value of adopting an ESG policy*, 14 *Sustainability* 13917 (2022).

¹⁰ Eur. Commission, *Public procurement in the utilities sector: water, energy, transport and postal services* (2016), available on the website: <https://single-market-economy.ec.europa.eu/news/public-procurement-utilities-sector-water-energy->

the availability of fundamental resources for residential, commercial and industrial consumption. In addition, the role of utilities in promoting public value and addressing sustainability concerns has grown significantly with all the advancement in science, technology and in human needs in general. Indeed, in addition to providing essential services, utilities have the power to support economic stability, public health, safety, and environmental protection through infrastructure development, regulatory compliance, and sustainability transition measures in general¹¹.

Despite its essential role, the utilities sector faces many challenges that make it harder to adapt and prosper in a rapidly changing world. Among these challenges is the growing public demand for reliable and high quality services, as well as the stringent regulatory framework, in particular EU directives. Added to this are the effects of market liberalization and sector reorganization, which have also introduced competitive pressures that require utilities to innovate and adapt in order to remain viable¹².

The sector is heavily regulated to ensure fairness, affordability and reliability, given the economic and social importance expressed above. This factor makes all development processes slower and less flexible. In addition, much of the existing infrastructure is aging and requires costly and recurrent upgrades or replacements. These costs must be added to those needed to remain consistent with ongoing energy and technology transitions.

Another pressing issue is the growing frequency of extreme weather events, driven by climate change, which can disrupt utility operations and lead to higher maintenance and recovery costs. The vulnerabilities exposed by such events highlight the importance of building resilient systems that can withstand and recover from these

transport-and-postal-services-2016-04-18_en#:~:text=Utilities%20(water%2C%20energy%2C%20transport,in%20economic%20and%20social%20development.

¹¹ G. D'Amore, M. Testa & L. Lepore, *How is the utilities sector contributing to building a sustainable future? A systematic literature review of sustainability practices*, 16 Sustainability 374 (2023).

¹² M. Rija & B. Banushi, *Recent empirical analysis on the disclosure of public utilities listed*, 1 Current Dev. and New Persps. in Applied Scis. and Econ. 40-48 (2017).

disruptions. Addressing these challenges requires substantial financial resources, long-term planning, and a commitment to innovation¹³.

Beyond these regulatory and economic issues, the social factor is becoming increasingly important. Public expectations for high standards of service have risen significantly in recent years, influenced by rapid technological advancements and rising consumer expectations, increased environmental awareness, and international connectedness as a result of globalization. Meeting such a growing demand means not only maintaining high standards of service, but also building trust, promoting customer loyalty and contributing to social progress¹⁴.

In this context, “legitimacy theory”¹⁵ provides a useful framework to understand how utilities seek to align their operations and reporting practices with the values, norms and expectations of society. According to this, organizations aim to ensure that their actions are perceived as desirable or appropriate within the socially constructed system of norms and beliefs. There is an implicit “social contract” between a company and society: in exchange for access to resources and social acceptance, organisations are required to behave responsibly and in line with social values. When a legitimacy gap arises (due to environmental impacts, regulatory scrutiny or public criticism) companies may respond strategically through corporate reporting and communication practices designed to restore or maintain legitimacy. From this, it might appear that to gain legitimacy the importance does not stand in the organisation’s conduct per se but rather how stakeholders, and society, perceive the organisation's conduct. The literature commonly discusses two main approaches to

¹³ Copernicus, *The economic impacts of climate change on the utilities sector* (2019), available on the website: <https://climate.copernicus.eu/economic-impacts-climate-change-utilities-sector>.

¹⁴ G. Valenza & R. Damiano, *Sustainability reporting and public value: evidence from port authorities*, 80-81 *Utils. Policy* 101508-101472 (2023).

¹⁵ S. Fernando & S. Lawrence, *A theoretical framework for CSR practices: integrating legitimacy theory, stakeholder theory and institutional theory*, 10 *J. Theoretical Accounting* 152-156 (2014).

corporate reporting: symbolic and substantive¹⁶. The symbolic approach involves organisations disclosing information on sustainability or social responsibility primarily through the use of images. This creates the appearance of compliance with societal expectations without necessarily changing underlying practices. By contrast, a substantive approach reflects genuine commitment, with reporting corresponding to real operational changes, measurable performance improvements and transparent accountability mechanisms.

In the public services sector, which operates under intense public scrutiny and regulatory oversight, both approaches can coexist. Some companies may adopt symbolic disclosure to manage legitimacy pressures and public perception, while others pursue substantive reporting to demonstrate tangible progress in transitioning to sustainability, building resilience and engaging stakeholders. In this scenario, the importance of communication, stakeholder engagement and reporting become increasingly evident for utilities companies. This is because it ensures transparency, accountability and compliance to stakeholders, while enabling efficient operations and strategic decision making. The extent to which reporting is symbolic or substantive often depends on the company's strategic orientation, the institutional context, and the degree of pressure exerted by stakeholders. Reporting, which can focus on financial, environmental, operational, or regulatory aspects, is a strategic tool that enables utilities contribute to building resilience, driving innovation, and ensuring the long-term sustainability of the sector¹⁷.

Through innovation, collaboration and a commitment to public value, the utilities sector can address these multiple challenges and opportunities and continue to play a vital role in shaping a sustainable and equitable future for society.

¹⁶ F. Manes-Rossi & G. Nicolò, *Exploring sustainable development goals reporting practices: from symbolic to substantive approaches—evidence from the energy sector*, 29 *Corp. Soc. Resp. & Env't Mgmt.* 1799-1815 (2022).

¹⁷ L. Bonetti, A. Lai, & R. Stacchezzini, *Stakeholder engagement in the public utility sector: Evidence from Italian ESG reports*, 84 *Utilities Policy* 101649 (2023).

2.2 ESG reporting in the utilities sector

In this context of reporting, ESG reporting takes place. The utilities sector is under increasing pressure to comply with sustainability, governance and social responsibility standards due to increased regulatory and public scrutiny. Environmental, social and governance (ESG) has emerged as a key tool for utilities to build trust, demonstrate accountability and maintain legitimacy. Beyond basic financial transparency requirements, ESG reporting offers utilities a way to demonstrate their commitment to responsible business practices, which can play a key role in attracting domestic and international investors.¹⁸

In fact, as anticipated in the previous section, utilities face growing stakeholder expectations from customers, employees, and communities regarding their social responsibility. Customers are more discerning and seek companies that prioritize sustainability, ethical treatment of employees, and positive societal impact. Investors are increasingly aware of how companies are performing in terms of environmental impact, social value and governance integrity. Then, utilities that can effectively communicate their efforts in these areas are often in a better position to access capital, particularly from sustainability-focused mutual funds. Stakeholder expectations can also be considered as a challenge since different stakeholders often have different and sometimes conflicting expectations of a utility's ESG performance. For example, investors may prioritize financial returns and governance stability, while customers may focus more on lower bills and social inclusion. Managing these diverse expectations requires clear communication and a balanced approach to achieving ESG goals that satisfies all stakeholders.

From a regulatory standpoint, the utilities sector has been a crucial focal point in sustainability research, as it plays a central role in achieving global sustainable development goals. Numerous studies have highlighted how utilities, while being among the key players in the sustainability sector, tend to voluntarily disclose ESG information to strengthen their public image and respond to the growing

¹⁸ F. Imperiale, S. Pizzi, S. Lippolis, *Sustainability reporting and ESG performance in the utilities sector*, 80 *Utils. Pol'y* 101468 (2023).

expectations of stakeholders. However, despite their commitment to transparency and social responsibility, these organizations face significant challenges in consistently integrating sustainability principles into their business models. These difficulties particularly arise from the need to align long-term sustainability goals with the pressing economic and operational demands of daily operations, as well as in managing the transition to greener practices, which often require substantial investments and a thorough revision of business strategies. Additionally, utilities must navigate an ever-evolving regulatory and competitive landscape, where sustainability policies are still under development and evaluation criteria are not always clear and consistent¹⁹.

Furthermore, utilities frequently fall under the scope of the European Union Directive 2014/95/EU, which imposes non-financial reporting obligations on large companies, including those related to sustainability, governance, and social practices. This regulatory framework has made utilities one of the most compliant sectors in terms of ESG reporting, as they are required to disclose detailed information on how they address environmental, social, and governance risks, and how these practices are integrated into their business strategies. The Directive has had a significant impact, not only in increasing the transparency of their operations but also pushing utilities to measure and communicate progress toward sustainability goals at both the European and global levels. This level of compliance has allowed utilities to position themselves as pioneers in ESG reporting, helping to define transparency standards for other sectors, although challenges remain in standardizing reporting criteria and methodologies across the entire industry²⁰.

¹⁹ O. Andrews & A. Slater, *Energy utilities tackle sustainability reporting*, 9 Corp. Env't Strategy 86-94 (2002); D. Cormier & I.M. Gordon, *An examination of social and environmental reporting strategies*, 14 Acct. Auditing & Accountability J. 587-617 (2001); F. Imperiale, S. Pizzi & S. Lippolis, *Sustainability reporting and ESG performance in the utilities sector*, 80 Utils. Pol'y 101468 (2023).

²⁰ S. C. Posadas & L. Tarquinio, *Assessing the effects of directive 2014/95/EU on nonfinancial information reporting: Evidence from Italian and Spanish listed companies*, 11 Admin. Scis. 89 (2021).

Effective ESG reporting, therefore, serves not only to satisfy regulatory and financial demands but also to foster stronger relationships with a broader, global audience, helping utilities to mitigate risks associated with climate change, regulatory changes, and social dissent to maintain a competitive edge while fulfilling their corporate social responsibility and long-term profitability. Since the utilities sector has an even stronger impact on the environment due to its reliance on energy production, resource consumption, and emissions, ESG implementation has a higher role of pushing utilities companies to adopt cleaner and more sustainable practices such as decarbonization, energy efficiency, water resource management and compliance with environmental regulations.

3. Methodology

A qualitative research approach was chosen, particularly advantageous because it represents the most appropriate methodology and, in certain circumstances, the only truly effective one for achieving targeted and specific research objectives.

This approach proves especially useful in contexts where knowledge of a phenomenon or opportunity is still incomplete, partial, or insufficient, and when the main goal of the research is to develop new ideas, generate original insights, and formulate hypotheses that can later be verified, validated, and further explored through the use of quantitative methods.

In this way, qualitative research serves as an exploratory foundation, creating the conditions for a more structured and measurable analysis in the subsequent stages of the study²¹.

A content analysis was conducted²², a method widely used in academic research, particularly among accounting scholars, for the interpretation and in-depth analysis of reports and corporate

²¹ J.F. Hair, M. Wolfinbarger, A.H. Money, P. Samouel & M.J. Page, *Essentials of business research methods* (2011).

²² K. Krippendorff, *Content analysis: An introduction to its methodology* (2018).

statements.²³ This methodological approach is frequently employed to extract meanings, identify emerging trends, and uncover underlying patterns in written documents, thereby contributing to a more detailed and critical understanding of the information contained.

This work expands on the findings of a previous study conducted using 2021 data, based on a sample of 15 utilities selected by the DNF Observatory. The 2023 sample, however, includes 16 utilities, enabling a broader and more up-to-date comparative analysis.

The study focuses on three key indicators to assess the structure and quality of ESG reports: (1) the degree of integration of ESG information within financial statements, (2) the format used to present the information (whether textual or graphical), and (3) the overall length of the reports. The primary objective of this research is to provide a detailed overview of how the data and indicators have changed between 2021 and 2023, and how these changes reflect an evolution in the communication practices of utilities towards their stakeholders. In particular, the analysis aims to highlight how communication strategies have evolved over time, in response to growing demands for transparency, sustainability, and social responsibility, and how these changes have influenced the public perception and interaction of utilities with investors, customers, and other relevant actors.

Table 1 - Sample of analysis

| Company 2021 | Company 2023 |
|---------------------|------------------------|
| ACQUE VENETE | ACQUE VENETE |
| AGSM A.I.M. SPA | AGSM A.I.M. SPA |
| AIMAG SPA | AIMAG SPA |
| ATLANTIA | ASSICURAZIONI GENERALI |
| CAP | CAP |
| FALK RENEWABLES SPA | HERA |

²³ O. Boiral, I. Heras-Saizarbitoria & M. C. Brotherton, *Assessing and improving the quality of sustainability reports: The auditors' perspective*, 155 J. Business Ethics 703-721 (2019).

| | |
|-------------------------|-----------------------------------|
| HERA | IREN |
| IREN | MUNDYS SPA (ex ATLANTIA SPA) |
| POSTE ITALIANE | POSTE ITALIANE |
| SMAT | RENANTIS (ex FALK RENEWABLES SPA) |
| SNAM | SMAT |
| TEA | SNAM |
| TERNA | TEA |
| UNIVERSITA' TOR VERGATA | TERNA |
| VERITAS SPA | UNIVERSITA' TOR VERGATA |
| | VERITAS SPA |

4. Findings

The presented results derive from a semi-manual analysis of the content of sustainability reports related to a sample of profit-sector companies, selected by the DNF observatory for the year 2023. The analysis allowed for an in-depth examination of the reports, with particular attention to their structure and organization, going beyond the specific content to focus on the effectiveness of the information layout and the clarity in communicating sustainability-related aspects. To this end, a set of simplified indicators were applied, designed to evaluate the structure of sustainability reports, with a particular focus on the coherence between sections, the completeness of the provided information, and the ease of reading and understanding. The results summarized using these indicators are presented in the following tables, offering a clear overview of the structural quality of the examined reports.

Table 2 - Structure Indicator 1 (IS1)

| STRUCTURE INDICATOR 1 (IS1) | INCIDENCE/ FREQUENCY |
|--|-----------------------------|
| Report integrated into the budget | 5 |
| Report not integrated into the balance sheet | 11 |

The first indicator is designed to identify the presence of the sustainability report within the financial statements, as shown in Table 2. This indicator allows for an analysis of how companies choose to integrate sustainability information into their annual financial disclosures. In its application, the examined reports resulted in two distinct groups of companies: 5 companies that have chosen to integrate the sustainability report directly into the financial statements, thus creating a single document that presents both financial and non-financial information together, and 11 companies that, on the other hand, present the sustainability report as a separate document, distinct from the financial statements. This distinction allows for an evaluation of the different reporting practices adopted by companies, exploring the benefits and challenges associated with integrating the sustainability report, as well as the impact this choice has on the transparency, consistency, and clarity of the information provided to stakeholders, including investors, customers, and regulatory authorities.

Table 3 - Evidence in the reporting section

| SURVEY OF MAIN REPORT SECTIONS |
|---------------------------------------|
| Group activities |
| Importance of stakeholders |
| System of governance |
| European taxonomy |

Secondly, a detailed analysis was conducted of the most relevant and recurring sections present in the sustainability reports examined, which were common across all the companies in the sample. These sections, listed in Table 3, are fundamental for understanding how companies address key sustainability and governance issues and provide a global view of their ESG practices and strategies. The analysed sections are as follows: *i*) Group Activities: This section is present in all the reports examined and provides an overview of the company's main operations and initiatives. Specifically, it describes sustainability-related projects and activities, highlighting how the company contributes to the community and the environment, as well

as how its actions align with long-term goals. The recurrence of this section reflects the importance companies place on communicating their sustainable activities: *i)* importance of stakeholders: another recurring section across all the reports analysed concerns stakeholder management. Here, companies emphasize the importance of understanding and meeting the expectations of various stakeholder groups, including investors, employees, customers, suppliers, and local communities. The analysis of this section provides crucial insights into how companies manage their relationships with stakeholders, integrating environmental, social, and governance considerations into their operational strategies; *ii)* governance system: in each report examined, this section describes the governance structure and processes, with a particular focus on transparency and the reliability of control mechanisms. Companies outline their practices in corporate ethics, accountability, and strategic decision-making, as well as the involvement of executives and oversight bodies in monitoring sustainability initiatives. The recurring presence of this section reflects the importance of ensuring that corporate policies align with sustainability standards and are effectively implemented. European Taxonomy; *iii)* finally, the section on the European Taxonomy appears in all the reports analysed, with a description of how companies respond to the criteria set by the European regulation defining ecologically sustainable economic activities. This section is essential for understanding the degree of commitment companies have to the ecological transition and how they are adapting their strategies and operations to meet European directives and contribute to global sustainability goals.

The analysis of these recurring sections provides a clear and comparative view of the practices and approaches adopted by companies to integrate sustainability into their corporate strategies and helps understand how this information is communicated to stakeholders at both the local and global levels.

Then, the second structure indicator focuses on analysing how information is presented within the report, examining whether it is primarily conveyed through textual content or graphical elements. The aim of this indicator is to evaluate how companies choose to

communicate data, distinguishing between purely descriptive communication and more visual forms, which may include graphs, diagrams, tables, and infographics.

Table 4 - Structure Indicators 2 (IS2)

| STRUCTURE INDICATOR 2 (IS2) | INCIDENCE/ FREQUENCY |
|------------------------------------|-----------------------------|
| Graph | 14 |
| Textual | 16 |

The analysis of the ESG reports of 16 companies reveals that 14 of them are presented in a graphical format, and all combine graphical and textual elements. This highlights a trend towards making ESG information more accessible and engaging for stakeholders.

Companies use visuals to: *i)* simplify communication: Graphs make complex data, such as carbon emissions, social initiatives, or governance indicators, easier to understand; *ii)* enhance impact: Visual presentations capture more attention and highlight key points, such as sustainability progress or future commitments; *iii)* establish transparency: Combining explanatory text with visuals provides clear context, strengthening trust among investors and other stakeholders.

These results demonstrate a shift towards strategic ESG communication, which is crucial for meeting the growing demand for sustainability and responsibility. A more critical analysis enables us to derive theoretical implications from the perspective of "legitimacy". The data shows that a significant percentage (87.5%) of utilities have found a balance in presenting both substantive and symbolic data. Distinguishing between symbolic and substantive reporting is essential for assessing the credibility and authenticity of the information disclosed by companies. While the symbolic approach primarily serves communication and reputational purposes, the substantive approach demonstrates the real integration of sustainability into strategic and operational dimensions. Then the companies realised it was useful to address their concerns in both ways by reviewing their activities, reflecting the expectations. This reflects a shift towards strategic and engaging ESG communication, essential to meet growing expectations for sustainability and responsibility.

Finally, the third indicator (IS3) analyses the length of the reports, measured by the number of pages, as highlighted in the Table 5. This indicator provides a quantitative overview of the informational volume of the sustainability reports, allowing for the assessment of the complexity and depth with which companies address ESG topics.

Table 5 - Structure Indicator 3 (IS3)

| STRUCTURE INDICATOR 3 (IS3) | INCIDENCE/ FREQUENCY |
|------------------------------------|-----------------------------|
| 1-50 | 3 |
| 50-100 | 3 |
| 100-200 | 4 |
| +200 | 6 |

From this last indicator we can see that most of the reports analysed are more than 200 pages long (six companies); three companies have a length of less than 50 pages, while three companies have dedicated between 50 and 100 pages to their sustainability report; four companies have between 100 and 200 pages.

Although there are no precise guidelines for utilities to follow when creating reports, or to demonstrate the functionality of splitting or merging different types of reports, or the length of these reports, there are some general practical considerations that are clear to us. Firstly, there is greater consistency in integrated reports. Not in all cases, but in the majority of them, where there are two files, there are also two different formats. This gives the impression that they have been written by different people, which is not very consistent with the idea of integrated governance, a critical factor in the success and sustainability of a company. In addition, an integrated document is clearly easier for the reader to find and read. In terms of format, however, most theories reflect the greater ease of understanding through the visualization of data, so the use of graphs and images is generally preferable, also to entertain the reader. Finally, with regard to the length of the reports, which obviously reflects the attention paid to the reporting tool, fundamental for utilities as mentioned above, it is also true that the approach to a particularly long file can also be a factor in discouraging a curious reader from reading.

5. Conclusions

The comparative analysis of IS1 from 2021 to 2023 reveals a clear trend toward greater emphasis on sustainability disclosure. Notably, the increase in reports published separately from annual reports indicates that companies are prioritizing ESG transparency.

This indicates a growing focus on sustainability disclosures, with organizations choosing to present them as distinct documents. This shift highlights the increasing importance of sustainability in corporate communication and suggests that businesses are prioritizing transparency and specialized reporting on their environmental, social, and governance (ESG) practices. The trend is consistent across the two years, with a noticeable expansion in the volume and visibility of these separate sustainability reports. The data supports the initial conclusion that sustainability is becoming an increasingly critical aspect of corporate reporting.

While the separation of reports may serve specific purposes, it is important to ensure that ESG reporting remains fully integrated into corporate governance. These observations highlight potential areas for future research on stakeholder engagement and reporting effectiveness. First, companies that choose to separate financial and non-financial reports may do so to assign different levels of importance to each type of information. This separation could signal that these two aspects of reporting are viewed as distinct and warrant individual attention. Second, the decision to separate these reports might be driven by the desire to provide stakeholders with the flexibility to access the information that is most relevant to them, based on their specific interests or needs. By doing so, organizations might aim to improve stakeholder engagement and satisfaction, ensuring that the right audiences can more easily locate the data that matters to them. Third, there is a concern that this separation should not lead to a division in the governance of financial and non-financial areas. If companies were to treat these two domains independently in terms of governance, it could imply that ESG (Environmental, Social, and Governance) reporting is viewed as less important than purely financial reporting.

Such a practice could diminish the perceived value of ESG initiatives, potentially harming a company's legitimacy and reputation. According to existing literature, failing to integrate ESG considerations into the overall governance framework could result in significant disadvantages in terms of global competitiveness, as stakeholders increasingly prioritize sustainability and responsible business practices.

These observations suggest that while the separation of reports might serve specific purposes, it is crucial to ensure that ESG reporting is still treated with the same level of importance as financial reporting.

Table 6 - Structure Indicator 1 (IS1)

| STRUCTURE INDICATOR 1 (IS1) | INCIDENCE/ FREQUENCY 2021 | INCIDENCE/ FREQUENCY 2023 |
|--|----------------------------------|----------------------------------|
| Report integrated into the budget | 6 | 5 |
| Report not integrated into the balance sheet | 9 | 11 |

The 2023 analysis of ESG reports shows a clear shift toward the use of graphical formats, often combined with textual elements, improving clarity and stakeholder accessibility. This trend underscores companies' efforts to enhance communication and transparency.

. By combining visual and textual elements, companies cater to diverse audiences, including investors, regulators, and the general public, ensuring that ESG information is both informative and digestible. The adoption of these methods not only underscores companies' commitment to transparency but also demonstrates their adaptability to emerging trends in communication. The shift from 2021 to 2023 highlights a significant improvement in how ESG data is communicated, emphasizing the growing importance of clear and engaging reporting. This evolution reflects a strategic move by companies to better connect with stakeholders and make sustainability efforts more accessible. By incorporating both visual and textual

elements, businesses are catering to a wider range of audiences, including investors, regulators, and the general public. The use of graphics alongside written content makes ESG information more digestible and easier to understand, which enhances transparency and fosters trust. This trend signals that companies are recognizing the value of effective communication in building stronger relationships with stakeholders, reinforcing their commitment to sustainability. As the demand for clearer, more interactive reporting continues to rise, this shift underscores the importance of evolving reporting practices to meet these expectations and strengthen overall corporate reputation.

Table 7 - Structure Indicators 2 (IS2)

| STRUCTURE INDICATOR 2 (IS2) | INCIDENCE/ FREQUENCY 2021 | INCIDENCE/ FREQUENCY 2023 |
|------------------------------------|--|--|
| Graph | 8 | 14 |
| Textual | 15 | 16 |

The trend toward longer and more comprehensive reports indicates an increased commitment to ESG integration, driven by both regulatory pressures and stakeholder expectations. Companies must still balance comprehensiveness with clarity to ensure reports remain accessible. This evolution is marked by a clear trend toward longer, more comprehensive reports, reflecting increasing pressures for transparency and regulatory compliance.

In 2021, the sustainability reports of most utilities were relatively short, with six out of the 15 companies producing reports ranging from just 1 to 50 pages. Only two companies in this group exceeded 200 pages. This could suggest that, at the time, many utilities were adopting an early or partial approach to ESG reporting, focusing on concise communication and offering a more limited view of their sustainability practices. These shorter reports likely concentrated on key highlights and did not delve deeply into all aspects of a company's sustainability strategy. The presence of reports between 100 and 200 pages in four cases, however, suggests that some companies were

already leaning toward a more comprehensive approach, perhaps in anticipation of increasing regulatory requirements or in response to stakeholders seeking more detailed disclosures. Despite this, the majority of companies in 2021 continued to favour brevity, indicating that the trend toward more detailed, longer reports was still emerging.

By 2023, however, a dramatic shift in reporting practices became evident. The number of utilities with sustainability reports between 1 and 50 pages decreased from six to just three, indicating a significant move away from short-form reports. More importantly, there was a clear increase in the number of companies producing very long reports. In 2023, six utilities published reports that exceeded 200 pages, a substantial rise from just two companies in 2021. This increase in report length could be attributed to several factors. One major factor is the intensification of regulations and expectations surrounding sustainability disclosures. For example, the Corporate Sustainability Reporting Directive (CSRD) introduced by the European Union has significantly raised the bar for companies in terms of the depth and detail required in ESG reports. As a result, many utilities have had to expand their reporting practices to comply with these new standards, which may explain the surge in the length of their sustainability reports.

Additionally, growing demands for greater transparency from investors, regulators, and other stakeholders may have driven utilities to provide more detailed information. Investors, in particular, are increasingly looking for in-depth insights into a company's ESG performance, risk management strategies, and long-term sustainability goals. This demand for transparency has likely played a key role in encouraging companies to move away from short, high-level summaries and embrace longer, more detailed reports that provide a fuller picture of their sustainability efforts.

Despite the overall increase in report length, it is interesting to note that the number of reports between 100 and 200 pages remained relatively unchanged. This indicates that some utilities have maintained a middle ground, offering a detailed level of disclosure without going to the extreme of producing excessively lengthy reports. These companies may have found a balance between providing

comprehensive information and ensuring their reports remain manageable and accessible for stakeholders.

The trend towards longer sustainability reports in the utilities sector signals that ESG integration is being taken more seriously. Companies appear to be committing more resources and effort into developing detailed sustainability strategies and reporting on their progress in a more transparent manner. The increased length of reports suggests that utilities are becoming more focused on providing a thorough understanding of their environmental, social, and governance performance, addressing a wide array of topics in greater detail, and making it easier for stakeholders to assess their sustainability practices.

However, it is important to note that longer reports are not always synonymous with better quality. While more detailed reports can enhance transparency, they also run the risk of becoming overly complex and difficult to navigate. Excessively long reports may overwhelm readers with information, making it harder for stakeholders to extract key insights. Therefore, the challenge for utilities going forward will be to find the right balance between completeness and clarity. A report that is too long may discourage readers from engaging with the content, while one that is too short may fail to provide sufficient detail to meet the expectations of stakeholders. To ensure that sustainability reports remain useful and accessible, companies will need to focus on clear communication and organize their reports in a way that allows stakeholders to quickly find relevant information without feeling overwhelmed.

In conclusion, the shift from 2021 to 2023 in the length of sustainability reports within the utilities sector demonstrates the sector's evolving approach to ESG reporting. Utilities are clearly moving towards more comprehensive disclosures, driven by both regulatory pressures and stakeholder demands for transparency. The growing trend towards longer reports is indicative of a more serious commitment to ESG integration, although companies must still ensure that the quality and clarity of their reports are maintained to meet the diverse needs of their audiences.

Table 8 - Structure Indicators 3 (IS3)

| STRUCTURE INDICATOR 3 (IS3) | INCIDENCE/ FREQUENCY 2021 | INCIDENCE/ FREQUENCY 2023 |
|------------------------------------|----------------------------------|----------------------------------|
| 1-50 | 6 | 3 |
| 50-100 | 3 | 3 |
| 100-200 | 4 | 4 |
| +200 | 2 | 6 |

The study is limited by its sample size and focus on the utilities sector, which may affect the generalizability of the findings. Future research should expand the sample across sectors, include additional indicators on ESG data quality, and investigate the effects of reporting practices on stakeholder decision-making. Moreover, it would be useful to examine the impact of evolving regulations, such as the CSRD and the Stop the Clock Directive, on ESG reporting practices.

Including companies from diverse sectors would allow for a more nuanced analysis of the differences and similarities in ESG reporting strategies. For example, the reporting needs of a technology company may differ significantly from those of an energy or manufacturing company due to varying levels of environmental impact, social responsibility, and governance structures. A sector-specific approach could reveal the distinct challenges companies face in adopting sustainability practices and communicating them effectively. It would also help identify sector-specific best practices that could be shared across industries to improve the overall quality and consistency of ESG reporting.

In addition to expanding the sample size, future studies could enhance the validity and generalizability of their results by incorporating a wider set of indicators to explore ESG reporting in more detail. These additional indicators could include the quality of the data disclosed, the specific metrics used, and the degree of alignment with international reporting standards. By delving deeper into these aspects, researchers could uncover the motivations behind a company's choice to disclose certain information or adopt particular

reporting strategies. This would help identify any potential biases or gaps in the data, allowing for a more contextualized and accurate understanding of ESG practices.

Moreover, such detailed research could provide valuable insights into the broader implications of ESG reporting, not only from the perspective of companies but also from that of external stakeholders, such as investors, consumers, regulators, and the public. Understanding how ESG disclosures affect stakeholder decision-making and behaviour is crucial for assessing the true impact of sustainability reporting. For instance, investors may rely on ESG reports to make more informed investment choices, while consumers may use such information to guide their purchasing decisions. Therefore, research should focus on exploring how different sectors' ESG practices influence stakeholder perceptions and outcomes.

Another important area for future research is the development of standardized frameworks or international guidelines for ESG reporting. Currently, there is a lack of uniformity in how companies disclose sustainability-related information, which can lead to confusion and hinder comparisons across industries. Establishing common reporting frameworks could promote greater transparency and consistency, making it easier for stakeholders to assess and compare companies' ESG performance. Special attention should be given to how companies can communicate their sustainability efforts in a clearer, more standardized way, ensuring that their reports are not only comprehensive but also accessible and understandable.

Finally, it would be beneficial to further investigate the role of regulations and government policies in shaping ESG reporting practices. Changes in legislation, such as the introduction of the Corporate Sustainability Reporting Directive (CSRD) in the European Union, are having a significant impact on how companies disclose ESG information. Understanding how these regulatory changes influence companies' reporting strategies and operations could offer valuable insights into how businesses are adapting to evolving legal requirements. Moreover, studying the long-term effects of such regulations could help predict how future legislative shifts will affect

ESG reporting and business practices, providing valuable guidance for companies seeking to stay ahead of regulatory trends.

In conclusion, future research on ESG reporting should focus on expanding the scope of analysis to include a broader range of companies and sectors, using additional indicators to gain a deeper understanding of reporting practices. Attention should also be given to how ESG reporting affects different stakeholders and the role of standardized reporting frameworks in improving transparency. Lastly, the influence of regulations and government policies should be examined to better understand the evolving landscape of ESG reporting and its implications for businesses in the future.

BENEFIT CORPORATION, DUAL-PURPOSE ENTITIES AND
STATE-OWNED ENTERPRISES: “NEW” MODELS TO ACHIEVE
SUSTAINABLE DEVELOPMENT

*Livia Ventura**, *Mario Manna***, *Manuwa John****

Abstract

The article examines the role of benefit corporations, dual-purpose entities and state-owned enterprises (SOEs) as particularly suitable models for advancing sustainable development goals, due to their shared dual-purpose nature. After outlining the longstanding debate on corporate purpose, it offers a comparative analysis of dual-purpose entities and benefit corporations across different jurisdictions, highlighting the diversity of regulatory approaches and their implications for corporate responsibility, with specific attention to the Italian benefit corporation. It then explores the potential contribution of SOEs to the sustainability transition: while profit remains a central goal, SOEs are also mandated to pursue public-interest objectives, especially in sectors related to emissions reduction, sustainable waste management and green infrastructure. However, case studies and OECD reports reveal that governance challenges—such as political interference, low professionalization of boards particularly regarding sustainability, and related inefficiencies—risk undermining SOEs’ capacity to effectively support sustainable development goals. The article concludes that although benefit corporations, dual-purpose entities and SOEs are structurally better positioned to foster sustainability, they must overcome substantial regulatory, governance and operational barriers to fully realize their potential.

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1. Introduction

The principle of sustainable development¹ necessitates a radical rethinking of the role and objectives of finance and, more broadly, of economic activities.

In particular, compliance with the principle of sustainable development implies that investments are directed towards companies, products, and services that aim to improve the economic and social conditions of the community while simultaneously generating a positive environmental impact: ultimately, they must be oriented towards the achievement of the common good².

Both in the Italian and European Union contexts, the principle of sustainable development has found significant

¹ The concept of sustainable development was first defined in the Brundtland Report, *Our Common Future* (WCED, Oxford, 1987), prepared by the World Commission on Environment and Development, a body established in 1983 by mandate of the United Nations General Assembly and composed of representatives from 21 countries. According to the report, sustainable development is defined as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. Over time, this principle has evolved through various international agreements and declarations, including the 1992 Rio de Janeiro Conference on Environment and Development, the 2002 World Summit on Sustainable Development in Johannesburg, the 2012 Rio+20 Conference on Sustainable Development, and the 2015 Sustainable Development Summit in New York, where the Agenda containing the Sustainable Development Goals (SDGs) for 2030 was adopted; in this sense see S. Quadri, *Business e Finanza Sostenibile: non solo green*, in E. Corapi (ed.), *Sostenibilità e mercato finanziario. Questioni aperte e profili comparati*, (2023), 34.

² *Ibid.*, 36.

regulatory expression. In Italy, the most notable example is the constitutional reform of February 8, 2022, which amended Articles 9 and 41³. The amendment to Article 9 incorporated the protection of the environment, biodiversity, and ecosystems into the fundamental principles of the Constitution, explicitly addressing the interests of future generations. Similarly, Article 41 underwent critical changes. The second paragraph, which previously established that private economic initiative is free provided it does not act against social utility or in a manner harmful to safety, freedom, or human dignity, now includes an additional constraint: it must not harm health and the environment. Moreover, the third paragraph was revised to explicitly allow the direction and coordination of public and private economic activities for environmental purposes, in addition to the existing reference to social purposes⁴.

³ It is worth noting that the phenomenon of the so-called environmental constitutionalism has not occurred solely in Italy. In fact, the most innovative positions have emerged in the countries of the so-called Global South (Africa, Latin America, and parts of Asia), which have often integrated environmental principles into their young constitutions, demonstrating greater flexibility and openness to new challenges. On the other hand, Germany also stands out, having intervened in 1994 by introducing Article 20 A into the *Grundgesetz* of 1949 (later amended in 2002), which now provides that it is the duty of the State and public authorities to protect the natural foundations of life and animals, also for the protection of future generations. Subsequently, in 2005, France further strengthened this trend by elevating the *Charte de l'environnement* of 2004 to constitutional status (citing it in the Preamble of the 1958 Constitution).

⁴ On the amendment of these articles, see M. Cecchetti, *La revisione degli articoli 9 e 41 della Costituzione e il valore costituzionale dell'ambiente: tra rischi scongiurati, qualche virtuosità (anche) innovativa e molte lacune*, 3 *Forum di Quaderni Costituzionali* (2021), available on the website: www.forumcostituzionale.it; G. De Muro, *I diritti della Natura*, in *Federalismi* (2022), available on the website: https://www.federalismi.it/AppOpenFilePDF.cfm?eid=625&dpath=editoriale&dfile=EDITORIALE%5F23022022181329%2Epdf&content=1%2Bdiritti%2Bdella%2BNatura&content_auth=%3Cb%3EGianmario%2BDeMuro%3C%2Fb%3E. G. Grasso, *Appunti per l'audizione informale resa il 4 febbraio 2020 presso la prima Commissione (Affari costituzionali) del Senato della Repubblica sul disegno di legge costituzionale n. 83 e connessi (tutela costituzionale dell'ambiente)*, in 2 *Osservatorio AIC* 6 ff (2020); L. Conte, *Ambiente, Paesaggio, Cultura. Il "Lessico" Costituzionale dopo la Riforma*, in 3 *Osservatorio AIC* 77 ff. (2023); R. Bifulco, *La legge costituzionale 1/2022: problemi e prospettive*, 1 *An. giur. econ.* 7 ff. (2022); P. Lombardi, *Ambiente e generazioni future: la dimensione temporale della solidarietà*, in 1 *Federalismi* 86 ff.3 (2023).

At the EU level, sustainability has become a cornerstone of legislative and policy initiatives aimed at guiding the transition toward a green economy. Among these, the European Green Deal stands out as a comprehensive strategy designed to achieve two overarching objectives: (i) climate neutrality by 2050 and (ii) the transformation of the EU economy into a model of environmental sustainability⁵.

The Green Deal has been complemented by a series of regulatory measures, including the EU Taxonomy Regulation (Regulation (EU) 2020/852)⁶, the Corporate Sustainability Reporting Directive (Directive (EU) 2022/2464, or CSRD)⁷, and the Corporate Sustainability Due Diligence Directive (Directive (EU) 2024/1760, or CSDDD)⁸. These measures collectively aim to establish detailed frameworks for sustainable finance, corporate governance, and due diligence along the value chain, aligning economic activities with the EU's environmental objectives.

In particular, the EU Taxonomy Regulation introduces a classification system to define environmentally sustainable economic activities, emphasizing the "Do No Significant Harm" (DNSH) principle⁹ and establishing criteria for six environmental

⁵ The EU Green Deal is available on the website: <https://eurlex.europa.eu/legal-content/EN/TXT/?uri=legissum:4438420#:~:text=It%20sets%20out%20a%20plan,%2C%20cleaner%2C%20safer%20and%20healthier.>

⁶ Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

⁷ Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting.

⁸ Directive (EU) 2024/1760 of the European Parliament and of the Council of 13 June 2024 on corporate sustainability due diligence and amending Directive (EU) 2019/1937 and Regulation (EU) 2023/2859.

⁹ According to the definition of the EU Commission available on the website [s://knowledge4policy.ec.europa.eu/glossary-item/do-no-significant-harm_en](https://knowledge4policy.ec.europa.eu/glossary-item/do-no-significant-harm_en), the Do No Significant Harm principle means: "not supporting or carrying out economic activities that do significant harm to any environmental objective, where relevant, within the meaning of Article 17 of Regulation (EU) 2020/852." The environmental objectives considered by article 17 of regulation (EU) 2020/852 are climate change mitigation; climate change adaptation; sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; protection and restoration of biodiversity and ecosystems.

objectives, including climate change mitigation and adaptation¹⁰. The CSRD expands reporting requirements, applying the principle of double materiality, which evaluates both the impact of environmental factors on companies and the effects of companies on society and the environment¹¹.

The CSDDD represents a significant step in embedding sustainability into corporate operations and governance.¹² The aim of CSDDD is advance sustainable and responsible corporate behaviour in companies' operations and throughout all their global value chains. The provisions of the directive aim to ensure that companies in scope identify and address adverse human rights and environmental impacts of their actions in Europe and also outside¹³.

On November 8, 2024, European Commission President Ursula von der Leyen announced plans to consolidate these diverse ESG (Environmental, Social, and Governance) obligations into a single "omnibus" regulation. This initiative seeks to address the overlapping provisions within the EU Taxonomy, CSRD, and

¹⁰ On the EU Taxonomy see: M. Och, *Sustainable Finance and the EU Taxonomy Regulation – Hype or Hope?*, 5 Jan Ronse Institute for Company & Financial Law Working Paper (2020); F. Schuetze, J. Stede, *EU Sustainable Finance Taxonomy – What Is Its Role on the Road towards Climate Neutrality?*, 1923 DIW Berlin Discussion Paper (2020); A.M. Paccas, *Will the EU Taxonomy Regulation Foster a Sustainable Corporate Governance?*, 611 ECGI Law Working Paper (2021); A. Giacomelli, *EU Sustainability Taxonomy for Non-Financial Undertakings: Summary Reporting Criteria and Extension to SMEs*, 29 Working Papers Department of Economics, Ca' Foscari University of Venice (2021).

¹¹ On the CSRD see: G. Galeone, *La rendicontazione non finanziaria e la misurazione dei fattori di sostenibilità: profili teorici e prospettive future* (2023); A. Genovese, *L'armonizzazione del reporting di sostenibilità delle imprese azionarie dopo la CSRD*, 1 Contr. Impr. 88 ff. (2023); T. Fornasari, M. Traversi, *The Impact of the CSRD and the ESRS on Non-Financial Disclosure*, 1 Symphonya. Emerging Issues in Mgmt. 117–133 (2024).

¹² On CSDDD see : N. Bueno et al., *The EU Directive on Corporate Sustainability Due Diligence (CSDDD): The Final Political Compromise*, 9 Bus. and Human Rights Journal (2024), available on the website: <https://www.cambridge.org/core/services/aop-cambridge>; S. Bruno, *Il ruolo della s.p.a. per un'economia giusta e sostenibile: la proposta di direttiva ue su "corporate sustainability due diligence". nasce la stakeholder company?*, 3 Diritti Comparati, 303 (2022).

¹³ In this sense see EU Commission, *Corporate Sustainability Due Diligence*, available on the website https://commission.europa.eu/business-economy-euro/doing-business-eu/sustainability-due-diligence-responsible-business/corporate-sustainability-due-diligence_en

CSDDD, simplifying compliance for businesses while maintaining rigorous sustainability standards. The announcement was made during a meeting in Budapest between EU Heads of State and the European Commission, culminating in the Budapest Declaration on the New Pact for European Competitiveness¹⁴.

The Budapest Declaration builds on the European Green Deal and incorporates elements of the Sustainable Finance Package, such as the European Green Bond Standard, which aims to channel private capital into environmentally beneficial projects. This initiative reflects the EU's broader strategic objectives, as outlined in the Political Guidelines for the Next Commission 2024-2029¹⁵ and the recent report, *The Future of European Competitiveness*, authored by Mario Draghi¹⁶.

More recently, the approval by the European Parliament on 13 November 2025 of the so-called Omnibus I package – the first legislative act implementing the abovementioned consolidation strategy – indicates a progressive recalibration of the Union's sustainability framework. Although formally presented as an exercise in regulatory streamlining, the Omnibus Package, and in particular the Stop-the-clock Directive, introduces deferrals of implementation deadlines under both the CSRD and the CSDDD and narrows their material and subjective scopes. Under the negotiating position adopted by the Parliament (382 votes in favour, 249 against, 13 abstentions), sustainability reporting would be required only for undertakings with more than 1,750 employees and an annual turnover exceeding €450 million, with qualitative disclosures significantly reduced and sector-specific reporting rendered voluntary. Smaller companies would be shielded from requests for additional data from their larger business partners, which would not be authorised to demand information beyond what is set out in the voluntary standards. With regard to due

¹⁴ The Budapest declaration outlines a 12-point agenda to ensure economic prosperity, resilience, and sustainability across the Union Available on the website: <https://www.consilium.europa.eu/en/press/press-releases/2024/11/08/the-budapest-declaration/>.

¹⁵ Available on the website: https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en?filename=Political%20Guidelines%202024-2029_EN.pdf

¹⁶ Available on the website: https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en#paragraph_47059.

diligence, obligations would apply solely to corporations exceeding 5,000 employees and €1.5 billion in annual turnover, to be carried out on a risk-based approach limited to available information, with recourse to requests from smaller partners only as a last resort. The requirement to adopt a transition plan compatible with the Paris Agreement would be removed, while liability would be allocated at national rather than EU level¹⁷.

Although framed as a simplification measure intended to enhance competitiveness, the initiative has raised concerns within academic debate and among institutional observers. In the absence of a comprehensive impact assessment, more than one hundred legal experts have pointed to possible infringements of the principles of proportionality and fundamental rights, suggesting potential exposure to annulment proceedings before the Court of Justice of the European Union¹⁸.

¹⁷ In this sense see the EU Parliament press release Sustainability reporting and due diligence: MEPs back simplification changes, 13 November 2025, available at <https://www.europarl.europa.eu/news/en/pressroom/20251106IPR31296/sustainability-reporting-and-due-diligence-meps-back-simplification-changes>.

¹⁸ See the letter “*Omnibus infringes EU Law - say over 100 law professors and lawyers*” signed on 10 November 2025 by 104 prominent legal expert and directed to Committee on Legal Affairs of the European Parliament (JURI) available on the website:

https://media.licdn.com/dms/document/media/v2/D4D1FAQFpXhIP_17xQA/feedshare-document-pdf-analyzed/B4DZpsfCsrHsAg-/0/1762756670459?e=1764806400&v=beta&t=qpsznLmiOf1ceQ4FDeCm7us3w0Ri0N0FOkGE7clHD20. In synthesis the signatories argue that, in the absence of comprehensive impact assessments and structured analysis of less restrictive alternatives, the proposal fails to demonstrate compliance with proportionality as required under CJEU case law (including the *Mobility 2024* judgment). Furthermore, by rolling back existing sustainability requirements without compelling justification or adequate transitional measures, it may amount to an undue limitation of previously established rights under Article 52(1) CFR, triggering strict reliance-based scrutiny as per *Digital Rights Ireland* and *Schrems*. The letter therefore urges the Committee on Legal Affairs to seek an opinion from the Parliament’s Legal Service before proceeding, to ensure that any amendments are demonstrably compatible with EU constitutional principles and the Union’s international climate obligations. On the Omnibus Package and its impact on EU Sustainability pathway see also: S. Bruno, M. Manna, *More on the Omnibus Package and the Future of European Global Leadership on Sustainability*, BIICL Blog (2025) available on the website: <https://www.biicl.org/blog/107/more-on-the-omnibus-package-and-the-future-of-european-global-leadership-on-sustainability?>

In this broader and complex framework, the present article delves into the evolving roles of benefit corporations, dual-purpose entities and state-owned enterprises (SOEs) in promoting sustainable development.

Outlined the trajectory of the long-standing debate surrounding corporate purpose and, therefore, the succession of theories of shareholder primacy and the shift towards forms of stakeholderism in the context of corporate governance, this contribution critically examines how these “new” entities align economic objectives with the imperatives of sustainability, addressing the legal and governance challenges that arise from integrating diverse stakeholder interests. Particular attention is dedicated to the Italian model of benefit corporation. The article then focuses on the potential role of SOEs in the sustainable transition. While profit-making remains a core objective of SOEs, they are also established to simultaneously pursue public interest objectives, often in sensitive sectors where emissions reduction, sustainable waste management and investment in green infrastructure are central.

In such a context of regulatory transition, the relevance of hybrid governance models becomes even more pronounced. Rather than relying exclusively on legislative compulsion, the capacity of benefit corporations and SOEs to effectively embed sustainability objectives increasingly depends on the coherence and resilience of their internal governance frameworks. Accordingly, the following analysis aims to clarify whether and to what extent these entities may ensure continuity of purpose and strategic alignment with sustainability imperatives even in phases of normative retrenchment.

2. From shareholder primacy to sustainability in the corporate governance debate

The shareholder primacy model¹⁹, principally developed in the US corporate context, has become relatively recently²⁰ the predominant accepted model in corporate practice²¹ and company law, even though the pursuit of some form of public interest was one of the core elements of business corporations since their birth as chartered companies in the Sixteenth century²².

Despite the existence of different “varieties of capitalism”²³ and the birth of new theories such as stakeholderism²⁴ or

¹⁹ Generally speaking, in the shareholder model companies should be run for the benefit of shareholders who provide risk capital to companies, shareholders' interest must be primarily considered in decision-making. While in the stakeholder model companies should be run for the benefit of all the stakeholders, those who can affect the company and can be affected by the company activity; all the interests of stakeholders need to be considered in the decision-making process.

²⁰ The shareholder primacy was popularized by economist Milton Friedman, see M. Friedman, *Capitalism and Freedom*, 1962; M. Friedman, *The Social Responsibility of Business Is to Increase Its Profits*, in *The New York Times Magazine*, 13 September 1970, available on the website: <http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html>.

²¹ See, e.g., S.M. Bainbridge, *Participatory Management Within a Theory of the Firm*, 21 J. Corp. L. 717 ff. (1996); K.B. Davis, *Discretion of Corporate Management to Do Good at the Expense of Shareholder Gain – A Survey of and Commentary on the U.S. Corporate Law*, 13 Can.-U. S. L. J. 1 ff. (1988); D.S. Lund, E. Pollman, *The Corporate Governance Machine*, 121 Colum. L. Rev. 2563 ff. (2021), describing the United States “corporate governance machine” as a complex governance system composed of law, markets, and culture that orients corporate decision-making towards shareholders primacy.

²² S. Williston, *History of the Law of Business Corporations Before 1800*, 2 Harv. L. Rev. 109 ff. (1888).

²³ P.A. Hall, D. Soskice, *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* (2001).

²⁴ The development of the modern corporate governance debate around the opposite models of “stakeholder primacy” and “shareholder primacy” stemmed from the dialogue between Dodd and Berle in the thirties of the nineteenth century: see A.A. Berle, *Corporate Powers as Powers in Trust*, 44 Harv. L. Rev. 1049 ff. (1931), affirming that managers should pursue only the shareholders' interest; E.M. Dodd, *For Whom Are Corporate Managers Trustees?*, in 45 Harv. L. Rev. 1145 ff. (1932), affirming that the corporation, as an institution, also has a public benefit purpose; A.A. Berle, *For Whom Corporate Managers Are Trustees: A Note*, in 45 Harv. L. Rev. 1365 ff. (1932), stressing its original position and affirming that the managers of a corporation are only responsible towards the shareholders. On the

communitarianism²⁵, not only the UK²⁶ and other common law systems were permeated by the Anglo-Saxon liberal market approach and the shareholder primacy principle. Continental Europe's legal systems, typically characterized by a more significant interaction of firms with other stakeholders (see in particular the German corporate governance model that focuses on

evolution of Berle's thought A.A. Berle, *The 20th Century Capitalist Revolution*, 169 (1954). On the issue see: A.A. Sommer Jr., *Who Should the Corporation Serve? The Berle-Dodd Debate Revisited Sixty Years Later*, 16 Del. J. Corp. L. 33 ff. (1991); W.W. Bratton, M.L. Wachter, *Shareholder Primacy's Corporatist Origins: Adolf Berle and the Modern Corporation*, 34 J. Corp. L. 99 ff. (2008). Among other pioneering works on the issue, see: I. Mitroff, *Stakeholders of the Organizational Mind* (1983); R.E. Freeman, D.L. Reed, *Stockholders and Stakeholders: A New Perspective on Corporate Governance*, 25 Cal. Mgmt. Rev. 88 ff. 1983, R.E. Freeman, *Strategic Management: A Stakeholder Approach* (1984).

²⁵ The term "communitarianism", borrowed from Amitai Etzioni's communitarian thesis which stressed the importance of moral, social, and political foundations of society, is here used to indicate those company law scholars who criticize the contractarian theory, see e.g. D. Millon, *New Directions in Corporate Law, Communitarians, Contractarians, and the Crisis in Corporate Law*, 50 Wash. & Lee L. Rev. 1373 ff. (1993); M.E. DeBow, D.R. Lee, *Shareholders, Nonshareholders and Corporate Law: Communitarianism and Resource Allocation*, 18 Del. J. Corp. L. 393 ff. (1993).

²⁶ In the UK, the 2006 Companies Act codified directors' fiduciary duties previously mainly regulated by case law according with a shareholder-oriented common law duty. The new Section 172 of the Act imposes on directors the duty to «promote the success of the company for the benefit of its members as a whole» and introduced the so-called "enlightened shareholder value" providing that directors have regard to a broad range of interests, balancing the interests of shareholders with other stakeholder interests, including the promotion of environmental, social and governance (ESG) objectives. However, the provision, which captured some aspects of corporate governance pluralist approaches and the long-term perspective, does not represent a substantive change, it does not compel directors to act based on stakeholders' interests (they are only required to "have regard" to them). Since its enactment, Section 172 occupied a relevant space in policy and academic discussions in the UK and abroad, but the mainstream interpretation of the new provision, sees the preservation of shareholder primacy as a key principle of UK company law see e.g., R. WILLIAMS, *Enlightened Shareholder Value in UK Company Law*, 35 UNSW Law Journal 360 (2012). For that reason, to better align the interests of shareholders with those of the society and the environment, the Better Business Act campaign has been launched in 2021 to further amend section 172, providing that the duty of a director is to «advance the purpose of the company» to benefit its members as a whole and the wider society and the environment, having regard to the interests of the stakeholders and reducing or eliminating the harms the company creates, or costs it imposes on them.

the integration of employee interests into company activity through the co-determination mechanism²⁷⁾²⁸ have also been encouraged to move towards the Anglo-American model²⁹ due to the growing role of capital market and the financialization³⁰.

This happened to the extent that a great convergence was observed at the end of the last century among major Western legal

²⁷ It is worth noting that German law does not follow a strict approach on shareholder value and since 1976 case law upheld that directors of a stock corporation have to pursue the “Unternehmensinteresse” (the “interest of the enterprise”), which is not the interest of its shareholders but encompasses the interest of all stakeholders, such as employees and the public. This approach is rooted in the codetermination mechanism. This “interest of enterprise” can be hard to specify giving leeway to directors. In particular, directors are free to respect other interests than those of shareholders, but they have discretion in balancing all interests and are not obliged to pursue these goals in all of their decisions (unlike what happens in dual-purpose companies). On the issue see, G. Spindler, *Social Purposes in German Corporate Law and Benefit Corporations in Germany*, in H. Peter, C. Vargas Vasserot, C. Alcalde Silva (eds.), *The International Handbook of Social Enterprise Law* 585–599 (2023).

²⁸ See: D. Millon, *New Directions in Corporate Law, Communitarians, Contractarians, and the Crisis in Corporate Law*, in 50 Wash. & Lee L. Rev. 1373–1393 (1993); M.E. DeBow, D.R. Lee, *Shareholders, Nonshareholders and Corporate Law: Communitarianism and Resource Allocation*, in 18 Del. J. Corp. L. 393–424 (1993).

²⁹ D. Collison, S. Cross, J. Ferguson, D. Power, L. Stevenson, *Shareholder Primacy in UK Corporate Law: An Exploration of the Rationale and Evidence*, in 125 Ass n’ of Chartered Certified Accountants Report 9-11 (2011). On the issue C. Lane, *Changes in Corporate Governance of German Corporations: Convergence to the Anglo-American Model?*, in 7 Competition and Change 79-100 (2003); M. Goergen, M. Martynova, L. Renneboog, *Corporate Governance Convergence: Evidence from Takeover Regulation Reforms in Europe*, in 21 Oxford Rev. of Econ. Policy 243 - 268 (2005).

³⁰ Financialization can be described as “the increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international level”, G. Epstein, *Financialization, Rentier Interests and Central Bank Policy*, in G. Epstein (ed.), *The Political Economy of Central Banking* 380–406 (2019). On the issue, see: G. Arrighi, *The Long Twentieth Century: Money, Power, and the Origins of Our Times* (1994). M. Aglietta, A. Reberioux, *Corporate Governance Adrift: A Critique of Shareholder Value* (2005); J.F. Sneirson, *The History of Shareholder Primacy, from Adam Smith through the Rise of Financialism*, in B. Sjøfjell, C.M. Bruner (eds.), *The Cambridge Handbook of Corporate Law, Corporate Governance and Sustainability* 83-84 (2019).

tradition countries³¹, and more generally at a global level³². Together with economic globalization³³ and the influence of global capital market actors, one of the drivers for this general convergence towards shareholder primacy, which occurred particularly from the end of the nineties onward, was the activity of international organizations, such as the Organisation for Economic Co-operation and Development (OECD), the World Bank, the International Monetary Fund (IMF), and the United Nations (UN), through their non-binding but highly influential reports, guidelines, and recommendations to states, which serves as benchmarks for policymakers, especially in developing countries. A primary role was played by the OECD Principles on Corporate Governance³⁴ published for the first time in 1999, which in their original version, reflected the shareholder primacy model, with limited consideration of stakeholders³⁵. They have been only recently revised, in 2023, introducing recommendations on

³¹ See H. Hansmann, R. Kraakman, *The End of History for Corporate Law*, 89 Georgetown L. J. 439–441 (2001), (noting a “large degree of uniformity [on shareholder primacy] across developed market jurisdictions”, and that “[t]here is no longer any serious competitor to the view that corporate law should principally strive to increase long-term shareholder value”).

³² On the general global convergence towards shareholder primacy see: □ M. Martynova, L.D.R. Renneboog, *A Corporate Governance Index: Convergence and Diversity of National Corporate Governance Regulations*, in 17 CentER Discussion Paper (2010), available on the website: <http://ssrn.com/abstract=1557627>; N. Navajyoti, *Convergence to Shareholder Primacy Corporate Governance: Evidence from a Leximetric Analysis of the Evolution of Corporate Governance Regulations in 21 Countries, 1995–2014*, 19 Corp. Governance: Int. J. of Bus. in Soc.’y 849–883 (2019); A. Shleifer, R.W. Vishny, *A Survey of Corporate Governance*, in 52 J. Fin. 737 ff. (1997), M.J. Rubach, T.C. Sebor, *Comparative Corporate Governance: Competitive Implications of an Emerging Convergence*, 33 J. World Bus. 167–185 (1998); U. Braendle, J. Noll, *On the Convergence of National Corporate Governance Systems*, 17 J. Interdisciplinary Econ. 57–81 (2006).

³³ On the issue see e.g.: Y. Luo, *How Does Globalization Affect Corporate Governance and Accountability? A Perspective from MNEs*, 11 J. Int. Mgmt. 19–41 (2005).

³⁴ Through the Reports on the Observance of Standards and Codes (ROSC), the World Bank and the IMF conducts national corporate governance systems assessments measuring practices and compliance against the OECD Principles of Corporate Governance. See S. Soederberg, *The Promotion of “Anglo-American” Corporate Governance in the South: Who Benefits from the New International Standard?*, 24 Third World Quarterly 7 – 27 (2003).

³⁵ N. Navajyoti, *Convergence to Shareholder Primacy Corporate Governance: Evidence from a Leximetric Analysis of the Evolution of Corporate Governance Regulations in 21 Countries, 1995–2014*, in 19 Corp. Governance: Int. J. of Bus. in Soc.’y 850 (2019).

sustainability and resilience to help companies manage climate-related and other sustainability risks and opportunities³⁶.

In the last decades, mainly due to the global economic and financial crisis, increased inequality, corporate scandals, and the rise of awareness on climate change risks³⁷, a profound reconsideration of the validity of the shareholder primacy model and the current economy and the capitalist system has begun, apparently slowing down this convergence towards shareholder primacy³⁸ and pointing to the need for a new stakeholder or “responsible capitalism”, in which businesses produce profit not as an end in itself but as a by-product for creating value for society as a whole³⁹. Therefore, the issue of sustainability has taken centre stage in the debate on corporate governance⁴⁰ of business

³⁶ The latest version of the OECD Principles on Corporate Governance is available on the website: <https://www.oecd-ilibrary.org/sites/ed750b30-en/index.html?itemId=/content/publication/ed750b30-en>.

³⁷ E.g., see the relevance of environmental risks in the last years Global Risks Reports of the World Economic Forum, available on the website: <https://www.weforum.org/publications/series/global-risks-report/>.

³⁸ See N. Navajyoti, *Convergence to Shareholder Primacy Corporate Governance: Evidence from a Leximetric Analysis of the Evolution of Corporate Governance Regulations in 21 Countries, 1995–2014*, 19 Corp. Governance: Int. J. of Bus. in Soc. 'y No. 864 ff. (2019).

³⁹ See the many contributions on the issue published in the ECGI Blog available at <https://www.ecgi.global/blogtheme/responsible-capitalism>, where “responsible capitalism” is described as an economic system that accommodates private ownership and the pursuit of market opportunities while achieving societal goals. A more detailed definition is offered by FIRST Responsible Capitalism Programme according to which responsible capitalism “requires a fundamental integration of the needs of the wider community, care for the communities in which the business operates, environmental initiatives and support for the arts and culture, with the business’s goals and processes. Above all, it is about how successful business leaders apply the principles of moral and social responsibility in the running of their business, combining social commitment with business acumen and innovation, and building a coherent philosophy in which the company’s success is judged over the long-term by criteria that include sustainability, equity, and moral justice as well as standard financial benchmarks.”, see organization dedicated website available at <https://responsible-capitalism.org/what-is-responsible-capitalism/>.

⁴⁰ According to the Cadbury Report of 1962 “corporate governance” refers to “the system by which companies are directed and controlled”, and the OECD Principles on Corporate Governance describe corporate governance as “the system by which business corporations are directed and controlled” and “the corporate governance structure specifies the distribution of rights and

companies, and discussions on the managerial and legal concept of “corporate purpose” have intensified among business and legal scholars⁴¹.

In addition to the social and economic rethinking of the capitalist system, this debate has been fuelled by several legislative and regulatory framework developments aimed at tackling

responsibilities among different participants in the company, such as the board, managers, shareholders, and other stakeholders, and spells out the rules and procedures for making and monitoring decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives and strategy are set, and the means of attaining those objectives and monitoring performance”.

⁴¹ On the corporate purpose debate see: C. Mayer, *Firm Commitment*, (2013); C. Mayer, *Who's Responsible for Irresponsible Business? An Assessment*, 33 *Oxford Rev. Econ. Policy* 157 – 175 (2017); C. Mayer, *Prosperity: Better Business Makes the Greater Good* (2018); L.A. Bebchuk, R. Tallarita, *The Illusory Promise of Stakeholder Governance*, in 106 *Cornell L. Rev.* 91–177 (2020); C. Mayer, *Shareholderism Versus Stakeholderism – A Misconceived Contradiction: A Comment on “The Illusory Promise of Stakeholder Governance” by Lucian Bebchuk and Roberto Tallarita*, 106 *Cornell L. Rev.* 1859 – 1879 (2020); E.B. Rock, *For Whom Is the Corporation Managed in 2020? The Debate over Corporate Purpose*, 515 *European Corporate Governance Institute, Law Working Paper* (2020), available on the website: <https://ssrn.com/abstract=3589951>; J.E. Fisch, S. Davidoff Solomon, *Should Corporations Have a Purpose?*, 99 *Texas L. Rev.* 1309–1346 (2020); E. Edmans, *Grow the Pie: How Great Companies Deliver Both Purpose and Profit* (2020); H. Fleischer, *Corporate Purpose: A Management Concept and Its Implications for Company Law*, 18 *Eur. Company Fin. L. Rev.* 161–189 (2021), pp. 161–189; D.S. Lund, E. Pollman, *The Corporate Governance Machine*, 121 *Colum. L. Rev.* 2563 ff. (2021); L.E. Strine, *Restoration: The Role Stakeholder Governance Must Play in Recreating a Fair and Sustainable American Economy – A Reply to Professor Rock*, 76 *Bus. Lawyer* 397–436 (2021), pp. 397–436; C. Mayer, *Capitalism and Crises: How to Fix Them* (2024). Against the shareholder primacy doctrine see also: M. Lipton, S. Rosenblum, S. Niles, S. Lewis, K. Watanabe, *The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership between Corporations and Investors to Achieve Sustainable Long-Term Investment and Growth* (2016); M. Lipton, *It's Time to Adopt the New Paradigm*, *Harvard Law School Forum on Corporate Governance* (2019) available on the website: <https://corpgov.law.harvard.edu/2019/02/11/its-time-to-adopt-the-new-paradigm/>; M. Lipton, *The Friedman Essay and the True Purpose of the Business Corporation*, *Harvard Law School Forum on Corporate Governance* (2020), available on the website: <https://corpgov.law.harvard.edu/2020/09/17/the-friedman-essay-and-the-true-purpose-of-the-business-corporation/>; M. Lipton, *ESG, Stakeholder Governance, and the Duty of the Corporation*, *Harvard Law School Forum on Corporate Governance* (2022), available on the website: <https://corpgov.law.harvard.edu/2022/09/18/esg-stakeholder-governance-and-the-duty-of-the-corporation/>.

environmental and social challenges. Among them, the advancement in organizational forms.

3. The development of hybrid entities

Due to the widespread cultural and legal dominance of shareholder primacy, recent decades have witnessed the emergence of new hybrid legal entities designed to help businesses address social and environmental objectives, and capable of bringing together social and environmental aims with business approaches. Several countries, from the Americas to Europe, have enacted a variety of statutes, introducing new entity types.

Early hybrid company forms include the “community interest company” (CIC) introduced in the UK in 2004⁴². CICs are blended legal structures⁴³ for businesses that primarily have social and environmental objectives and whose surpluses are principally reinvested in the business or in the community, rather than being driven by the need to maximise profit for shareholders. CICs can raise equity capital as well as for-profit companies but company’s assets shall be dedicated to public benefit. Thus, the distribution of dividends is capped at 35% of the aggregate total company profits⁴⁴ and in the event of dissolution CICs’ assets must go to similar entities pursuing community benefits. CICs are overseen by the CIC Regulator, which ensures compliance with the “community interest test” (verifying that CIC’s activity is carried on for the benefit of the community⁴⁵) and receives the CIC’s annual report. It is worth noting that CICs do not have tax advantages and are subject to the corporation tax regime. CICs represent a first step towards a new

⁴² Companies (Audit, Investigations and Community Enterprise) Act, 2004, c. 27, §26. In legal literature see e.g. S. Lloyd, *Transcript: Creating the CIC*, in 35 Vermont L. Rev. 31-43 (2010); R.T. Esposito, *The Social Enterprise Revolution in Corporate Law*, in 4 William & Mary Bus. L. Rev. 674-678 (2013).

⁴³ Both, companies limited by guarantee or companies limited by shares can acquire the CIC status.

⁴⁴ See Office of the Regulator of Community Interest Companies, *Community interest companies: guidance chapters*, Chapter 6: The asset Look, p. 6.

⁴⁵ Companies (Audit, Investigations and Community Enterprise) Act, 2004, c. 27, §35(2), according to which «A company satisfies the community interest test if a reasonable person might consider that its activities are being carried on for the benefit of the community.».

blended-value entity, but they have non-distribution constraint limits that characterise the non-profit sector⁴⁶.

In the US several more innovative hybrid entities combining for-profit and non-profit objectives were developed. The first social enterprise statute was the *Low-Profit Limited Liability Company* (L3C) introduced in Vermont in 2008⁴⁷. L3Cs are companies aimed primarily at performing a socially beneficial (charitable or educational) purpose, and not at maximizing income. In particular, the L3C legal form is designed to make it easier for socially oriented businesses to attract investments from foundations, simplifying compliance with the Internal Revenue Service's Program Related Investments' (PRI) regulations⁴⁸. Indeed, thorough PRIs private foundations can satisfy their obligation under the Tax Reform Act of 1969 to distribute annually at least 5% of their assets for charitable purposes. Investments in L3Cs that qualify as PRIs can fulfil this requirement while allowing the foundations to receive a return from the investment. L3Cs have been widely criticised for their unclear regulation under tax law and did not have huge success among practitioners⁴⁹.

Another social enterprise legal form is the *Social Purpose Corporation* (SPC). It was introduced in California in 2011 (formerly known as the flexible purpose corporation), in Washington in 2012, and in Florida in 2014. The SPC is a new corporate entity enabling directors to consider and give weight to one or more social and environmental purposes of the corporation in decision-making. Unlike the L3C, where the charitable purpose overrides profit

⁴⁶ On the issue see: H.B. Hansmann, *The Role of Nonprofit Enterprise*, 89 Yale L. J. 835 - 901 (1980); H.B. Hansmann, *Reforming Nonprofit Corporations Law*, 129 U. Pa. L. Rev. 500 (1981).

⁴⁷ See Vt. Stat. Ann. Tit. 11, §3001(27). Other states such as Illinois, Louisiana, Maine, Michigan, Rhode Island, Utah, and Wyoming introduced the L3C statute. On L3Cs see R. Lang, E.C. Minnigh, *The L3C, History, Basic Construct, and Legal Framework*, in 35 Vt. L. Rev. 15 ff. (2010).

⁴⁸ I.R.C. §§4944(c); 170(c)(2)(B); 26 CFR 53.4944-3(b) Ex. (3). The purpose of the L3C statute is to attract PRIs from foundations, investments considered by the IRS as "qualifying distributions", meaning that they count toward the IRS's requirement that private foundations spend 5% of their net worth in any given year, see T. Kelley, *Law and Choice of Entity on the Social Enterprise Frontier*, in 84 Tul. L. Rev 356 ff.(2009)

⁴⁹R.T. Esposito, *The Social Enterprise Revolution in Corporate Law*, in 4 William & Mary Bus. L. Rev. 682-688 (2013); J.H. Murray, *The Social Enterprise Law Market*, 75 Md. L. Rev. 545-546 (2016).

maximisation, the SPC only gives directors the discretion to choose social and environmental purposes over profits⁵⁰.

However, the most famous social enterprise legal form is the benefit corporation, which is reflected in more comprehensive legislation. The first benefit corporation statute was passed in Maryland in 2010. Currently about 40⁵¹ US jurisdictions have passed statutes, the majority of which are inspired by the Model Benefit Corporation Legislation (Model Act) proposed by B Lab with the support of the American Sustainable Business Council. The exception is Delaware, which in 2013 introduced its own statute, the *Public Benefit Corporation Act*⁵². Benefit corporations are for-profit corporations whose purpose, in addition to producing profits, is to reduce negative externalities and generate a positive impact on the environment, society, the workers, and the community in which they operate. Benefit corporations differ from traditional business corporations in entity purpose, directors' accountability, and transparency, but not in taxation.

The purpose of a benefit corporation is to create a "general public benefit", which is defined as a material positive impact on society and the environment⁵³, taken as a whole, assessed against a third-party standard. Moreover, a benefit corporation may or must (depending on state law) identify one or more "specific public benefits" to pursue⁵⁴. Directors of benefit corporations are required to consider (or balance in Delaware) the impact of their decisions on shareholders and on society and the environment. Transparency provisions require benefit corporations to publish an annual benefit

⁵⁰ R.T. Esposito, *The Social Enterprise Revolution in Corporate Law*, 4 William & Mary Bus. L. Rev. 693 (2013).

⁵¹ For further information see the Social Enterprise Law Tracker available at <https://scentlawtracker.org/#/bcorps>.

⁵² Del. Code Ann. Tit. 8, §§361-368.

⁵³ Model Act §102 - "General public benefit", and §201(a).

⁵⁴ According to the definition provided in the Model Act §102, the specific public benefit includes:

(1) providing low-income or underserved individuals or communities with beneficial products or services; (2) promoting economic opportunity for individuals or communities beyond jobs in the normal course of business; (3) protecting or restoring the environment; (4) improving human health; (5) promoting the arts, sciences, or advancement of knowledge; (6) increasing the flow of capital to entities with a purpose to benefit society or the environment; and (7) conferring any other particular benefit on society or the environment.

report (every two years in Delaware) on their social and environmental impact using a comprehensive, credible, independent, and transparent third-party standard (not required in Delaware). In the U.S., there is no public control over benefit corporations' reporting and activity. The only available remedy is the benefit enforcement proceeding (or shareholders' derivative action in Delaware) if directors fail to pursue the public benefit purposes. With regard to taxation, benefit corporations are subject to the same income tax rules as other company types.

The benefit corporation legal model circulated in other jurisdictions in Europe, Latin America and Canada⁵⁵. In Europe, it was transplanted at first in Italy in 2015 with the introduction of "*società benefit*" (SB)⁵⁶, as will be seen better below.

A similar dual-purpose company structure has been introduced in Spain in 2022, the "*sociedades de beneficio e interés común*"⁵⁷, and in France with the *Loi Pacte* of 2019. The latter regulated an optional dual-purpose legal form, the "*société à mission*", close to the US benefit corporation but characterised by different governance features to control the purpose. It allows a for-profit company to incorporate into the articles of association, together with the *raison d'être*, one or more social and/or environmental objectives that wants to pursue in the framework of its activity⁵⁸, which must be considered in the management of the company and monitored by a new dedicated internal body, the "*comité de mission*" (or "*réfèrent de mission*" for companies with less than 50 employees)⁵⁹.

The most innovative aspect of these new corporate forms is that they not only allow but require directors to take into account social and environmental objectives, which enter the articles of association and the "company interest" and provide for clear accountability and disclosure mechanisms.

⁵⁵ Similar hybrid models have been introduced in Colombia, Ecuador, Peru and Uruguay ("*Sociedades de Beneficio e Interés Colectivo*"), and in British Columbia-Canada ("benefit company").

⁵⁶ Law No. 208, 28 December 2015, *Disposizioni per la formazione del bilancio annuale e pluriennale dello Stato (Legge di Stabilità 2016)*, art. 1, paragraphs 376-384.

⁵⁷ Law No. 18/2022, 28 September 2022, *Ley de creación y crecimiento de empresas, Disposición adicional décima*.

⁵⁸ Commercial Code, art. L. 210-10.

⁵⁹ See B. Segrestin, K. Levillain, *Profit-with-Purpose Corporations: Why Purpose Needs Law and Why It Matters for Management*, 20 Eur. Mgmt. Rev. 733-740 (2023).

These developments in some EU Member States seems to be consistent with a new direction in European harmonisation of company law that over recent years opened up to sustainability issues. Examples are the Directive on long term shareholder engagement of 2017⁶⁰, the Directive on non-financial reporting of 2014⁶¹, now replaced by the 2022 Corporate Sustainability Reporting Directive (CSRD), and the Directive on Corporate Sustainability Due Diligence (CSDDD). It must be noted, however, that these newly adopted regulations are now subject to review under the EU's Omnibus Simplification Package (COM (2025) 80/81), proposed on 26 February 2025, which – despite its stated objective of streamlining rules – has been criticized as amounting in practice to a deregulatory rollback of sustainability obligations.”

4. The *società benefit* in the Italian legal framework

The *società benefit* (SB), introduced in Italy through the Legge di Stabilità no. 208/2015 (L. n. 208/2015), is a pioneering corporate model that integrates profit generation with legally mandated public benefit objectives. This governance structure tailors the global concept of benefit corporations to the Italian legal system, ensuring a robust framework that mandates accountability, transparency, and measurable social impact. The Italian SB is underpinned by paragraphs 376 to 384 of art.1 of L. n. 208/2015. These provisions define the SB as a company that pursues a dual purpose: generating profits and creating measurable public benefits (*beneficio comune*). Public benefit objectives must be specified in the company's articles of association and are legally binding for directors. Unlike traditional companies, SBs are explicitly required to balance the financial interests of shareholders with the broader interests of stakeholders, including employees, communities, and the environment. The principle of *bilanciamento* (balancing interests) is central to the Italian SB's governance model. Directors are tasked with ensuring that business decisions reflect this balance,

⁶⁰ Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement.

⁶¹ Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

making them accountable for pursuing public benefits alongside economic goals. Failure to achieve this balance exposes directors to potential liabilities, underscoring the legal enforceability of their commitments. The cornerstone of the SB's accountability framework is the mandatory annual impact report (*Relazione di impatto*), as outlined in paragraph 380 of art. 1 of L. n. 208/2015. This document evaluates the company's progress in achieving its specified public benefit objectives, employing third-party standards to ensure objectivity and reliability. The report must include: i) identification of objectives, i.e. a detailed description of the general and specific public benefits pursued; ii) performance assessment, i.e. quantitative and qualitative metrics measuring the impact of the company's activities; iii) stakeholder engagement, i.e. evidence of how the company's operations have affected stakeholders; iv) compliance confirmation, i.e. certification that the company has adhered to its statutory obligations.

The report must be appended to the company's financial statements and submitted to the Company Register, ensuring public accessibility and transparency. The Italian SB mandates rigorous compliance, reinforcing its credibility. Directors of SBs are subject to enhanced fiduciary duties, encompassing both traditional financial responsibilities and obligations to achieve the company's public benefit objectives. Paragraph 381 of L. n. 208/2015 introduces the concept of the *benefit judgment rule*, which evaluates directors' decisions based on their adherence to the dual-purpose mandate. This rule protects directors who act in good faith to balance competing interests but holds them accountable for negligence or failure to pursue stated objectives. Additionally, shareholders are granted the right to initiate derivative actions against directors⁶². This provision ensures that directors are

⁶²Third parties may take action against directors where the requirements under Article 2395 of the Italian Civil Code are met.: i) the damage suffered by the third party must be immediate and direct, meaning it cannot be merely a consequence of harm to the company's assets. In other words, the damage must directly affect the individual's legal sphere and not derive solely from harm to the company; ii) the act performed by the directors must result from intentional misconduct (*dolo*) or negligence (*colpa*) that caused the damage; iii) there must be a causal relationship between the directors' conduct and the damage suffered by the shareholder or third party.

accountable for the dual-purpose mandate, aligning corporate governance with the principles of social responsibility.

The Italian SB is qualified by its legally binding obligations and external enforcement mechanisms. More specifically, Italian law requires third-party verification of impact reports⁶³. The Italian Competition Authority (*Autorità Garante della Concorrenza e del Mercato*) is empowered to sanction companies that fail to meet their public benefit commitments, particularly in cases of misleading practices. This distinguishes the SB from models like the French *société à mission*, which rely primarily on internal oversight mechanisms. It is worthy to note that the SB model is available to all forms of business entities in Italy, including partnerships, limited liability companies, and cooperatives. This flexibility enhances its applicability across diverse sectors. While the SB framework offers significant advantages, it also presents operational challenges: The preparation of detailed impact reports and compliance with third-party standards require substantial resources, which may deter smaller companies. Moreover, unlike some jurisdictions that offer small tax benefits to encourage adoption, Italy does not provide fiscal incentives for SBs.

Notwithstanding the relatively recent introduction of the SB model, the number are rising and as of 30 June 2025, there were 5,161 *società benefit* in Italy, with a growth of 24.27% compared to the same period in the previous year⁶⁴. However, many companies remain unaware of its benefits or hesitant to adopt it due to perceived complexities. Despite these challenges, the SB model offers significant strategic advantages for companies willing to embrace its framework. By integrating sustainability into their core operations, SBs can enhance brand reputation by demonstrating a commitment to public benefits, which strengthens stakeholder trust and consumer loyalty. It can also attract investment, since ESG-focused investors increasingly prioritize companies with robust

⁶³ Delaware does not require third-party standards, while France, although not requiring third-party standards, mandates the certification of the report by an independent body among those authorized, thus maintaining a form of external oversight.

⁶⁴ For more detailed information see Assobenefit website at <https://assobenefit.org/articoli/crescono-le-societa-benefit-in-italia-oltre-5-100-al-30-giugno-2025>.

sustainability frameworks, making SBs attractive investment targets.

5. The potential role of state-owned enterprises in the sustainable transition

In light of the recent shift in policy direction within the EU, as described in the introduction of this paper, and, also in the United States, where sustainability regulation appears to be entering a phase of rollback and dilution⁶⁵, the capacity of SOEs to contribute to long-term sustainability objectives becomes increasingly dependent on governance frameworks capable of ensuring continuity with the commitments undertaken at international level, notably under the Paris Agreement and the United Nations 2030 Agenda for Sustainable Development.

This entails providing SOEs with the proper incentives, resources, and autonomy to pursue long-term value creation while addressing environmental and social risks. States, as shareholders acting in the public interest, bear the responsibility of ensuring that these enterprises align with sustainability objectives. In turn, SOEs are expected to manage emerging risks and capture new opportunities associated with the global transition to green, inclusive, and net-zero economies⁶⁶.

In defining SOEs, this article refers to entities in which the state exercises ownership or control, including joint-stock companies, limited liability companies, partnerships limited by shares, and statutory corporations created by specific legislation.

⁶⁵ We are referring to the regulatory developments in the USA under the Trump Administration. The federal executive has systematically pursued the retrenchment of core climate-related commitments. Among its earliest actions in 2025 was the formal withdrawal of the United States from the Paris Agreement, accompanied by the proclamation of a national “energy emergency,” a decision officially framed as necessary to address the “high demand for energy and natural resources to power the next generation of technology” (See The White House, *Unleashing American Energy*, Presidential Actions, 30 January 2025, available on the website <https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/>).

⁶⁶ In this sense, see OECD, *Guidelines on Corporate Governance of State-Owned Enterprises*, 69-70 (2024).

Here, we refer to both owned⁶⁷ and controlled⁶⁸ entities. What unites these diverse entities is their legal recognition and public ownership or influence, even when such ownership is partial. Their presence has expanded over the past two decades, especially in response to economic crises, with a noticeable resurgence of public enterprise models in Europe following the 2008 financial crisis and, more recently, during the COVID-19 pandemic⁶⁹. This renewed emphasis on SOEs has been interpreted as a positive factor for the sustainability transition, especially within the EU, where SOEs are considered essential tools for executing the European Green Deal,

⁶⁷ Ownership encompasses direct majority ownership and other forms of direct or indirect ownership where control is exercised. Control is deemed to exist when a state ownership entity, or multiple entities acting in concert, holds a majority of voting rights as the ultimate beneficial owner or exercises an equivalent degree of influence over the enterprise. Equivalent control may arise from various legal or factual arrangements granting decisive influence. These include legal provisions, corporate articles of association, or arrangements under private or public law that ensure sustained state influence over the enterprise. Such influence might be exercised through veto rights on significant decisions, the power to appoint a majority of the board of directors or the CEO, or control over critical material decisions. Additionally, control may result from preferential or long-term use of the enterprise's assets or from rights and contracts that confer decisive influence over its commercial or operational decisions; OECD, *Guidelines on Corporate Governance of State-Owned Enterprises*, cit. at 66, 9–10.

⁶⁸ Control is deemed to exist when a state ownership entity, or multiple entities acting in concert, holds a majority of voting rights as the ultimate beneficial owner or exercises an equivalent degree of influence over the enterprise. Equivalent control may arise from various legal or factual arrangements granting decisive influence. These include legal provisions, corporate articles of association, or arrangements under private or public law that ensure sustained state influence over the enterprise. Such influence might be exercised through veto rights on significant decisions, the power to appoint a majority of the board of directors or the CEO, or control over critical material decisions. Additionally, control may result from preferential or long-term use of the enterprise's assets or from rights and contracts that confer decisive influence over its commercial or operational decisions. Determining whether the state exercises such decisive influence often requires a case-specific evaluation of all relevant circumstances. For example, the extent to which special rights, shares, or legal provisions—sometimes referred to as a "golden share"—grant control depends on the powers they confer on the state. OECD, *Guidelines on Corporate Governance of State-Owned Enterprises*, cit. at 66, 9–10.

⁶⁹ B. van Apeldoorn, N. De Graaf, *The State in Global Capitalism Before and After the Covid-19 Crisis*, 3 *Contemp. Pol.* 306-327(2022).

playing key roles in energy market reform, sustainable mobility⁷⁰, and urban development initiatives⁷¹.

SOEs' contribution to sustainability is grounded in both scale and scope. Globally, approximately 20% of the Forbes Global 2000 companies are state-owned⁷². In the EU alone, SOEs account for nearly 50% of GDP and 10% of employment, underscoring their structural importance⁷³. They are heavily concentrated in critical sectors such as energy, transportation, and water – sectors that are central to the climate transition⁷⁴.

Unlike private firms, SOEs are not exclusively oriented toward strict profit maximization, as this objective is typically mitigated by broader public-interest mandates and policy considerations⁷⁵, enabling them to pursue long-term policy objectives, including decarbonization and sustainable development⁷⁶. Governments can shape SOEs' behaviour through

⁷⁰ European Union Agency for Railways, *Fostering the Rail Sector through the European Green Deal: Rail-Port Synergies*, Publications Office of the European Union Agency for Railways, 2022, available on the website: https://www.era.europa.eu/content/report-fostering-railway-sector-through-european-green-deal_en.

⁷¹ S. Wolf et al., *The European Green Deal – More Than Climate Neutrality*, 2 *Intereconomics* 99-107 (2021).

⁷² S. Clò et al., *Public Enterprises in the Market for Corporate Control: Recent Worldwide Evidence*, 86 *Annals of Pub. and Cooperative Econ.* 559-583 (2015).

⁷³ European Commission, *State-Owned Enterprises in the EU: Lessons Learnt and Ways Forward in a Post-Crisis Context*, Publications Office of the European Union, Luxembourg (2016) available on the website <http://bookshop.europa.eu/uri?target=EUB:NOTICE:KCBC16031:EN:HTML>.

⁷⁴ B. Mayer, M. Rajavuori, *State Ownership and Climate Change Mitigation: Overcoming the Carbon Curse?*, in 11 *Carbon & Climate L. Rev.* 223-233 (2017).

⁷⁵ T. Meelen, J.P. Sluijs, *Government Ownership for Sustainability Transitions: Empirical Insights for EU Policy Makers*, White Paper Sustainable By Design Industrial Policy for Long-Term Competitiveness in the EU 113-117 (2024), available on the website: <https://research-portal.uu.nl/ws/portalfiles/portal/236848659/whitepaper-sustainable-by-design-industrial-policy-for-long-term-competitiveness-in-the-eu.pdf>.

⁷⁶ *Ibid.*, 113-117. This is even more evident in Public Owned Corporations which operate at a local level; on this, see A.C. Lindholst, *Addressing Public-Value Failure: Remunicipalization as Acts of Public Entrepreneurship*, 24 *J. Econ. Policy Reform* 380-397 (2021); M. Minoja, G. Romano, *Managing Intellectual Capital for Sustainability: Evidence from a Re-Municipalized, Publicly Owned Waste Management Firm*, in 279 *J. Cleaner Prod.* 123 ff. (2021); G. Romano, N. Salvati, A. Guerrini, *Factors Affecting Water Utility Companies' Decision to Promote the Reduction of Household Water Consumption*, in 28 *Water Resources Mgmt.* 5491-5505 (2014).

legislation, regulatory mandates, and public investment incentives, aligning these enterprises with broader sustainability goals⁷⁷.

Additionally, municipal and regional SOEs often demonstrate stronger responsiveness to public concerns, including environmental and social issues. This proximity to civil society positioned SOEs as responsive and accountable vehicles for delivering sustainability outcomes⁷⁸. However, this potential is not automatic. Numerous studies warn of serious challenges to SOE effectiveness, particularly in terms of governance and accountability⁷⁹. Compared to private firms, SOEs often suffer from weaker internal controls, politicized appointments, and less transparent oversight⁸⁰. The close relationship between public enterprises and political institutions raises the risk of inefficiency and corruption, which can erode sustainability performance⁸¹.

Furthermore, the sectoral composition of SOEs exposes them to significant sustainability-related risks. Many operate in high-

⁷⁷ K. Surana, L.D. Anadon, *Public Policy and Financial Resource Mobilization for Wind Energy in Developing Countries: A Comparison of Approaches and Outcomes in China and India*, in 35 *Global Environmental Change* 340–359 (2015); D. Ghosh, M. Dutta, *Environmental Behaviour under Credit Constraints – Evidence from Panel of Indian Manufacturing Firms*, 63 *Structural Change & Econ. Dynamics* 490–500 (2022).

⁷⁸ As indicated by T. Meelen, J.P. Sluijs, *Government Ownership for Sustainability Transitions: Empirical Insights for EU Policy Makers*, cit. at 75, 113–117 for the case of municipally owned waste collectors in Italy, it is reported how a closer relationship with citizens, as well as higher levels of trust, facilitates knowledge sharing, in turn enhancing sustainability outcomes. A more responsible attitude of publicly owned enterprises to civil society concerns, such as sustainability, is commonly reported. For instance, in a case study tracing the sustainability efforts of municipally owned corporations in Cologne, Germany, it is even observed that in the absence of clear instructions from city government, sustainability actions are contingent on protests by climate groups.

⁷⁹ F.N.G. Andersson, S. Opper, U. Khalid, *Are Capitalists Green? Firm Ownership and Provincial CO₂ Emissions in China*, 123 *Energy Pol.* 349–359 (2018); A. Meyer, G. Pac, *Environmental Performance of State-Owned and Privatized Eastern European Energy Utilities*, 36 *Energy Economics* 205 ff. (2013).; L. Deruytter, G. Juwet, D. Bassens, *Why Do State-Owned Utilities Become Subject to Financial Logics? The Case of Energy Distribution in Flanders*, 26 *Competition & Change* 266–288 (2022).

⁸⁰ J. Liang, L. Langbein, *Are State-Owned Enterprises Good Citizens in Environmental Governance? Evidence From the Control of Air Pollution in China*, 53 *Admin. & Soc’y.* 1263–1292 (2021).

⁸¹ X. Zhao et al., *Corporate Behavior and Competitiveness: Impact of Environmental Regulation on Chinese Firms*, 86 *J. Cleaner Production* 311–322 (2015).

emission, hard-to-abate industries—such as oil and gas, heavy manufacturing, mining, and electricity generation. These companies face both physical risks from climate change and transition risks associated with shifts in technology, regulation, and consumer demand. As public entities, the financial and environmental risks borne by SOEs often translate into direct fiscal exposure for states. These issues may take the form of declining dividends, unserviceable debt (especially where state guarantees are implicit), or the accumulation of stranded assets. These dynamics create long-term challenges for fiscal sustainability and public service delivery. To meet national and international sustainability targets, particularly under the Paris Agreement, SOEs must undergo governance transformation and strategic reorientation. This requires both internal reforms and strong external frameworks to ensure alignment between enterprise behavior and public objectives. In some countries, this transformation has already begun as part of a broader movement to embed sustainability principles into the fabric of public enterprise governance⁸². Against this backdrop and building on the predominantly European-oriented policy references and institutional insights outlined above and in the relevant sources, it becomes necessary to assess how these structural dynamics materialise in practice beyond the EU context. The following section therefore turns to selected extra-European case studies, which illustrate how governance frameworks, political incentives, and legacy mandates shape SOEs' capacity to contribute to sustainability objectives in real-world settings.

5.1. Comparative cases beyond Europe

Building on the structural and governance considerations outlined in the preceding section, the practical implications of these dynamics become clearer when examined through concrete national cases. As anticipated, the abovementioned governance vulnerabilities often materialize most visibly in countries where SOEs operate in strategic, high-emission sectors. This trend is particularly evident in Nigeria, where the experience of the Nigerian National Petroleum Company Limited (NNPC Ltd.)

⁸² OECD, *Guidelines on Corporate Governance of State-Owned Enterprises*, cit. at. 66, 69 ff.

illustrates the exact governance tensions described above. Although the 2021 Petroleum Industry Act⁸³ sought to modernize the enterprise through corporatization and enhanced managerial autonomy, the reform has proved only partially effective. NNPC remains characterized by limited board independence, politically influenced fiscal transfers, and opaque subsidy mechanisms. Such features systematically hinder an SOE's capacity to reorient its strategy toward long-term sustainability, and NNPC's persistent prioritization of fossil fuel expansion and downstream subsidies confirms this structural constraint. This example also highlights how rentier-state economies struggle to conduct the governance transformation required by the sustainability transition⁸⁴. Despite its corporatization, NNPC Ltd. continues to perform quasi-fiscal roles. In 2022, it spent approximately 4.39 trillion (US \$9.7 billion) on petrol subsidies without corresponding legislative appropriations and made no remittances to the Federation Account. Notably, a NEITI audit also revealed that in 2021, prior to corporatization, NNPC failed to remit over US \$2 billion to the Federation Account, a pattern indicative of long-standing fiscal opacity⁸⁵. These actions undermine the transparency and fiscal

⁸³ Petroleum Industry Act (2021), available on the website https://pia.gov.ng/wp-content/uploads/2022/08/PIA-2021_compressed-1.pdf.

⁸⁴ Nigeria exemplifies this struggle in the pursuit of sustainable development. While recent reforms have aimed to enhance accountability in Nigeria's oil and governance landscape, structural constraints persist. The abovementioned *Petroleum Industry Act, 2021* (Sections 53–65) corporatized NNPC Ltd. and outlined governance frameworks intended to separate commercial operations from political influence, though implementation remains uneven. The *Climate Change Act, 2021* (Sections 3–6; available on the website https://climate-laws.org/document/nigeria-s-climate-change-act_5ef7) reinforces national commitments to emissions budgeting and institutional coordination through the creation of a National Council on Climate Change. Meanwhile, the *Companies and Allied Matters Act, 2020* (Part C, Sections 270–297; available on the website <http://www.nipc.gov.ng/product/companies-and-allied-matters-act-2020/>), mandates corporate governance standards—including director accountability—relevant to SOEs structured as limited liability entities. Together, these instruments reflect Nigeria's evolving regulatory effort to align governance, environmental, and social priorities, even if their operational reach within core SOEs like NNPC Ltd. remains limited.

⁸⁵ See Nigerian Extractive Industries Transparency Initiative (2022), *Cost of Fuel Subsidy to the Nation: Options for Policy Review*, 3–4, available on the website <https://neiti.gov.ng>; World Bank, *Nigeria Public Finance Review: Fiscal Adjustment for Better and Sustainable Results. Synthesis Report*, Report No. AUS0002571

discipline objectives of the Petroleum Industry Act. This fiscal role has direct consequences for the firm's ability to align with Nigeria's climate targets under the 2060 net-zero pledge. Although Nigeria has launched an Energy Transition Plan (ETP) and committed to renewable investments, NNPC has remained largely absent from serious transition planning⁸⁶. Its capital allocation continues to prioritize oil exploration, refinery rehabilitation, and downstream infrastructure initiatives—choices that risk locking Nigeria into a high-carbon development path. Although mechanisms for environmental accountability do exist within Nigeria's broader SOE governance ecosystem—most notably the Nigerian Sustainable Banking Principles (NSBP)—these exert limited traction over NNPC. Established by the Central Bank of Nigeria in 2012, the NSBP requires financial institutions to assess environmental and social risks in high-impact sectors⁸⁷. However, NNPC's reliance on state or internal funding shields it from direct compliance. Even where syndicate lending arrangements exist, limited corporate disclosure weakens the enforceability of ESG standards. Thus, while the NSBP has strengthened accountability across Nigeria's financial sector, it lacks regulatory force over state-owned extractive giants such as NNPC. This governance gap is further compounded by the absence of emissions disclosure, impact assessments, or sustainability-linked financing instruments within NNPC's portfolio⁸⁸. While Nigeria's Sovereign Green Bond

(Washington, DC: The World Bank (2022) 10-13; and TheCable, NEITI: NNPC didn't remit \$2bn into federation account before transitioning into commercial entity, Sept. 19, 2023. Available on the website: <https://www.thecable.ng/neiti-nnpc-didnt-remit-2bn-into-federation-account-before-transitioning-into-commercial-entity/>

⁸⁶ The Nigeria Energy Transition Plan (ETP) is a nationally owned, data-driven strategy that sets out Nigeria's pathway to achieve net-zero emissions by 2060 while addressing energy poverty and fostering economic growth across five key sectors: power, transport, cooking, industry, and oil & gas. It underscores the role of natural gas as a transition fuel, projects up to 840,000 jobs by 2060, and estimates multi-billion-dollar cumulative capital investment needs between 2020 and 2060; Nigeria ETP is available on the website: <https://energytransition.gov.ng/>

⁸⁷ See Central Bank of Nigeria, *The Nigerian Sustainable Banking Principles* (2012), available on the website: <https://www.cbn.gov.ng/out/2012/ccd/circular-nsbp.pdf>

⁸⁸ On the lack of emissions disclosure, environmental impact assessments, and sustainability-linked financing mechanisms within NNPC's operations, see

Framework and climate financing architecture continue to evolve, NNPC has yet to position itself as a credible participant in green finance markets⁸⁹. Unlike peer SOEs which have issued green bonds and developed decarbonization roadmaps⁹⁰ – NNPC lacks a board-level sustainability mandate or a coherent emissions reduction strategy. Its ESG reporting – where it exists – is sporadic, unaudited, and often limited to compliance declarations rather than strategic transition metrics⁹¹. In this light, NNPC exemplifies the kind of institutional inertia that undermines sustainability ambitions in resource-dependent economies. Legal reform without political discipline, corporatization without professionalized governance, and fiscal mandates without climate accountability cannot deliver the transformation required. The Nigerian case thus reinforces a central insight: public ownership is not a guarantee of sustainability leverage – without coherence in mandate, oversight, and finance, it may entrench the very emissions pathways that sustainable development seeks to overcome.

Resource Governance Initiative, *National Oil Company Profile: NNPC* (2025), available on the website: <https://resourcegovernance.org/publications/national-oil-company-profile-nnpc>

⁸⁹ On Nigeria's evolving green finance architecture, see Federal Republic of Nigeria Debt Management Office, *Federal Republic of Nigeria Sustainable Bond Framework* (2025), available on the website <https://www.dmo.gov.ng/fgn-bonds/green-bond/5336-federal-republic-of-nigeria-sustainable-bond-framework/file>.

⁹⁰ For example, the *China Green Bond Market Report 2021*, jointly published by the Climate Bonds Initiative and China Central Depository & Clearing Co. Ltd -2060, Available on the website <https://www.climatebonds.net/files/documents/publications/China-Green-Bond-Market-Report-2021.pdf>, offers a comprehensive overview of China's rapidly growing green finance ecosystem. In 2021, China issued over USD 68 billion in green bonds, reclaiming its position as the world's largest green bond market. The report highlights increased alignment with international standards, especially through the updated Green Bond Endorsed Project Catalogue. It also showcases the expanding role of SOEs in driving green investments across sectors like clean energy, transport, and low-carbon infrastructure –

⁹¹ P Toledano et Al., *Equipping the Nigerian National Petroleum Corporation for the Low-Carbon Transition*, 13-29 (2020); available on the website <https://ccsi.columbia.edu/sites/default/files/content/docs/publications/CCSI-NNPC-Nigerian-National-Petroleum-Corporation-Low-Carbon-Transition-rev.pdf>

A comparable dynamic can be observed in South Africa. Eskom – long recognized as the backbone of the national electricity system – embodies many of the vulnerabilities previously discussed: chronic financial distress, governance instability, exposure to political interference, and a sectoral mandate deeply embedded in high-emission activities. These features limit the enterprise's ability to align with the country's just transition agenda, even as South Africa increasingly integrates climate commitments into national development planning⁹². The magnitude of Eskom's structural challenge is amplified by its central role in national emissions. As of 2023, Eskom alone accounted for more than 40%⁹³ of South Africa's total greenhouse gas emissions, driven by an aging fleet of coal-fired power stations that supply over 85% of national electricity⁹⁴. While the government's *Just Energy Transition Investment Plan (JET-IP)* outlines a pathway toward decarbonization and energy diversification, Eskom's financial and institutional architecture remains poorly positioned to execute this vision⁹⁵. The utility's balance sheet – burdened by debt exceeding R400 billion – has constrained its ability to finance new generation capacity, modernize its transmission infrastructure, or scale renewable

⁹² South Africa included a just transition in its NDC as early as 2015. However, Climate Action Tracker rated its 2021 NDC update as "insufficient" due to its continued reliance on coal, particularly through Eskom. Coal remains dominant in the power sector and underpins regional economies in Mpumalanga and Limpopo; see Climate Action Tracker, *South Africa Country Summary: Updated Climate Commitments and Actions*, (2021), available on the website: <https://climateactiontracker.org/countries/south-africa/2021-09-15/>

⁹³ On Eskom's disproportionate share of national emissions, see Eskom, *Sustainability Report*, 42-43 (2023); available on the website https://www.eskom.co.za/wpcontent/uploads/2023/10/Eskom_sustainability_report_2023.pdf; also Eskom, *GHG emissions*, available on the website <https://www.eskom.co.za/dataportal/emissions/elementor-291086/>.

⁹⁴ On South Africa's coal dependency and its impact on national emissions, see Energy Intelligence, *South Africa's Struggle to Transition from Coal*, (2025), available on the website: <https://www.energyintel.com/00000198-9ebd-db4e-a9bd-9fbf10e60003>

⁹⁵ Available on the website: <https://www.climatecommission.org.za/south-africas-jet-ip>

integration⁹⁶. South Africa's National Treasury unveiled debt relief packages in 2023, aiming to alleviate Eskom's financial strain. However, these packages were contingent upon improvements in governance, procurement, and cost control—domains where Eskom's difficulties persist⁹⁷. Leadership changes and the overlapping responsibilities of ministers have undermined the ability to carry out strategic plans effectively. At the same time, structural reforms, those involving unbundling, are still moving slowly. Although the National Transmission Company's 2023 debut represented progress, implementation is still delayed by labour disputes and political divisions, which also hinder regulatory clarity⁹⁸. This dynamic presents a tension at the heart of South Africa's just transition agenda: how to balance the imperative of rapid decarbonization with the socio-economic risks of structural transformation in coal-dependent regions. Eskom, as both a major emitter and a key employer, sits at the centre of this dilemma⁹⁹. While the government's JET-IP outlines financial, technical, and social support mechanisms to mitigate transition risks, the lack of a dedicated sustainability mandate within Eskom's corporate governance structure limits the internalization of these

⁹⁶ See CNBC Africa, *Eskom Targets Mainly Clean Energy Sources by 2040*, (2025), available on the website: <https://www.cnbc.com/2025/south-africa-eskom-targets-mainly-clean-energy-sources-by-2040>.

⁹⁷To support Eskom's unbundling and sustainability, the government has introduced a debt-relief arrangement that transfers up to R254 billion of Eskom's debt to the government over three years. This arrangement is conditional on compliance with performance criteria, including procurement reforms, operational improvements, and unbundling milestones. International Monetary Fund, *South Africa: 2023 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Africa*, (2023); available on the website: <https://www.imf.org/en/publications/cr/issues/2023/06/06/south-africa-2023-article-iv-consultation-press-release-staff-report-and-statement-by-the-534271>

⁹⁸ On delays as a result of labor disputes and political divisions; see : Mkentane, Luyolo, *NUM challenges Eskom unbundling as 'privatisation agenda*, BusinessDay, October 6th 2025, available on the website <https://www.businessday.co.za/bd/national/2025-10-06-num-challenges-eskom-unbundling-as-privatisation-agenda/>.

⁹⁹ See Presidential Climate Commission, *Framework for a Just Transition in South Africa*, (2022); available on the website https://pcccommissionflo.imgix.net/uploads/images/22_PAPER_Framework-for-a-Just-Transition_revised_242.pdf

objectives¹⁰⁰. The utility's environmental disclosures remain limited in scope and lack integration with performance metrics or capital allocation frameworks. Sustainability planning within Eskom is largely reactive, driven by external donor requirements rather than embedded governance reforms. Thus, Eskom's experience exemplifies a broader insight: even in countries with progressive climate frameworks and ambitious transition plans, SOEs cannot operationalize sustainability agendas without internal reforms that align mandates, capabilities, and oversight. As long as Eskom's governance remains fragmented, financially unstable, and structurally entangled in high-carbon infrastructure, its role in the energy transition will remain conflicted – aspirational in rhetoric but constrained in practice. Together, the Nigerian and South African cases illustrate the central insight developed in the preceding section: SOEs cannot deliver sustainability outcomes unless their governance frameworks, incentives, and mandates are coherently aligned with public-policy objectives

These tensions are not incidental: globally, SOEs remain central to the net-zero transition precisely because – as highlighted in the previous paragraph – they operate in high-emission, capital-intensive sectors and control assets on a scale unmatched by private firms. Their portfolio already reflects this mixed trajectory – marked by substantial renewable expansion alongside the persistence of coal-fired assets – a duality that emerges with particular clarity in the Chinese context. China's SOEs epitomize this pattern: in 2020 they were responsible for 83% of large-scale solar PV installations and 65% of new wind capacity, while simultaneously issuing billions in green bonds and investing in carbon-neutrality technologies such as CCUS, smart grids, and hydrogen¹⁰¹. These figures underscore the scale at which Chinese SOEs operate within the energy transition landscape. State-owned enterprises such as State Power Investment Corporation (SPIC),

¹⁰⁰ For an illustration of this institutional gap, see Eskom, *Sustainability Report*, 50-55 (2022), available on the website: https://www.eskom.co.za/wp-content/uploads/2022/12/2022_integrated_report.pdf

¹⁰¹ See F. Zhang and J. Zuo, 'State-Owned Enterprises' Responses to China's Carbon Neutrality Goals and Implications for Foreign Investors' (2023), available on the website <https://gjia.georgetown.edu/2023/02/15/state-owned-enterprises-responses-to-chinas-carbon-neutrality-goals-and-implications-for-foreign-investors/>.

China Huaneng Group, and China Energy Investment Corporation not only dominate domestic generation capacity but have also become central actors in clean technology deployment¹⁰². The strategic positioning of SOEs in China's decarbonization push reflects an intentional policy design: rather than marginalizing legacy actors, the government has embedded energy transition goals within the operational mandates of key state firms. This includes the issuance of green bonds—where China now leads globally in volume—with SOEs such as China Development Bank and Industrial Bank Co. among the largest issuers¹⁰³. However, the dual role of SOEs—leading green innovation while still operating coal-intensive assets—has generated structural tensions, as illustrated by the continued commissioning of coal plants alongside renewable expansion. China's green hydrogen strategy leans heavily on SOEs. According to the State-owned Assets Supervision and Administration Commission (SASAC), over one-third of China's SOEs are actively developing plans for hydrogen production, storage, distribution, and utilization. These enterprises have been explicitly identified as core actors in the early stages of hydrogen industrialization, with projects often integrating renewable energy generation, electrolysis infrastructure, and industrial off-take—executed within vertically integrated SOE portfolios¹⁰⁴. Similarly, CCUS pilots are largely housed within state entities due to the high capital intensity and policy risk. Thus, China's SOEs reveal a form of climate pragmatism: leveraging public control to accelerate low-carbon investment while still navigating the political economy of entrenched fossil dependence.

¹⁰² See X Dong et Al., *Decarbonising China & the World: Chinese Energy SOEs Supercharge Renewable Investment in Response to the 14th Five-Year Plan*, (2023); available on the website: https://climateenergyfinance.org/wp-content/uploads/2023/11/FINAL-301123-Decarbonising-China-the-World_-Chinese-Energy-SOEs-Supercharge-Renewable-Investment-1-1.pdf

¹⁰³ See International Energy Agency, *How can sustainable debt support China's energy transition?*, (2023); available on the website: <https://www.iea.org/commentaries/how-can-sustainable-debt-support-chinas-energy-transition>

¹⁰⁴ On the central role of SOEs in early hydrogen industrialization efforts, see Centre for Strategic and International Studies (CSIS), *China's Hydrogen Industrial Strategy*, (2022); available on the website: <https://www.csis.org/analysis/chinas-hydrogen-industrial-strategy>

Ultimately, the dynamics emerging from the case studies show that the ability of SOEs to effectively contribute to sustainability transitions depends not only on the regulatory instruments and strategic objectives assigned to them, but above all on the consistency of their governance frameworks. A systematic assessment of such frameworks thus becomes a key interpretative lens and will be further discussed in the concluding remarks.

6. Conclusion

This paper has taken into consideration the roles of benefit corporations, dual-purpose entities and SOEs in pursuing sustainable development through an analysis of their governance models, their regulatory frameworks and the main issues that each of them face.

The reason why benefit corporations and SOEs have been analyzed together is their structural possibility to combine traditional profit-making goals with broader objectives connected to sustainability. When it comes to benefit corporations, this hybrid purpose is linked to their private autonomy capacity: companies voluntarily decide to embed commitments to generate public benefit. Conversely, SOEs are equally bound to pursue such objectives, as their aforementioned 'public mission' requires them to align corporate strategies with overarching policy goals. This convergence illustrates how hybrid governance models are increasingly seen as instrumental to tackling sustainability challenges.

From a private sector perspective, the growing interest in benefit corporations and, more generally, in dual-purpose models in several legal systems may show that something is changing in the possible directions of corporate governance. The recent past – as indicated in paragraphs three and four – demonstrates an increasing awareness that environmental and social impacts on a corporate level cannot be treated as occasional side issues. Instead, they are progressively regarded as components that should be treated as parts of the business strategies since they have an economic and financial relevance on the mid-term horizon of each firm.

In this regard, the model of benefit corporation is paradigmatic: benefit companies must pursue public benefit objectives, ascertained via duties of disclosure and accountability.

Benefit corporation, on the other hand, faces many challenges: its administrative complexity and the absence of substantive tax incentives represent obstacles to its adoption, especially for smaller enterprises that may lack the necessary organizational capacity¹⁰⁵.

In order to improve the capacity of benefit corporation of being a model for sustainable development, it could be useful, first of all, to introduce uniform and standardized templates for mandatory reporting, adapted by different jurisdictions: this could make the process easier and cheaper and could encourage smaller businesses to adopt this model. Reviewing tax policies could also play a significant role. If turning tax benefits into a defining feature of the model is not a viable solution, on the other hand policymakers might consider targeted financial mechanisms that acknowledge and reward the concrete commitments undertaken by such entities. At the same time, it's crucial to increase awareness of the long-term economic value that integrating sustainability into corporate activities can generate. Informative initiatives, collaborations with business associations and advisory services—designed for different business profiles—could help foster a gradual cultural shift towards more purpose-driven orientations. Lastly, aligning the benefit corporation framework with accepted international standards and best practices would improve the credibility of the model and strengthen international cooperation. Using established reporting tools—such as the Global Reporting Initiative (GRI) or the European Sustainability Reporting Standards (ESRS)—could promote consistency, increase investor confidence and support cross-border collaborations and financing. Facing these operational, fiscal and cultural hurdles and promoting alignment with international benchmarks, would enable benefit corporations to boost their efficacy as “private” model to reach

¹⁰⁵ In this sense see: D. Galli et Al., *Signaling the Adoption of the Benefit Corporation Model: A Step towards Transparency*, 13 *Sustainability* 6967 ff. (2021).

sustainable development¹⁰⁶, since, especially in light of the ongoing rollback on sustainability policies – discussed above – the role of hybrid governance models becomes even more strategic.

Turning to the public sector, it has been demonstrated that SOEs have a pivotal role in sustainable development. Their structural hybrid nature – pursuing both profit and public-interest mandates – places them, at least theoretically, in a privileged position. Given this, SOEs governance faces many structural weaknesses such as high political influence and structural operational inefficiencies, sometimes up to corrupt practices. These issues not only undermine the quality and legality of SOEs performance, but can also increase the sustainability-related risks, as discussed in paragraphs five and five point one of this paper.

On a EU Level, as proposed by T. Meelen and J.P. Sluijs¹⁰⁷, adopting a Pan-European Code of Corporate Governance could significantly enhance SOEs' positive contribution to the sustainable transition, as strong adherence to the rule of law and robust corporate governance practices are critical to their effective operation.

Worldwide, the need to improve the SOEs' governance has been underlined by the abovementioned 2024 OECD *Guidelines on Corporate Governance of State-Owned Enterprises*¹⁰⁸ which highlighted the need of improving professionalism, transparency and accountability in SOEs' corporate governance. According to these guidelines the performances of SOEs could be positively affected by a clear separation between ownership and regulatory functions, the minimisation of undue political interference and the establishment of professional and more independent boards. OECD further highlighted the need for explicit strategic mandates, regular performance monitoring, strengthened disclosure obligations and closer alignment of operational practices with internationally recognised corporate governance standards.

¹⁰⁶ On the future perspectives of the benefit corporation on comparative standpoint see: B. De Donno, *La società benefit come strumento di qualificazione di sostenibilità nel contesto globale*, 1 Working Paper Series LSL (2024).

¹⁰⁷ T. Meelen, J.P. Sluijs, *Government Ownership for Sustainability Transitions: Empirical Insights for EU Policy Makers*, cit. at 75, 113-117.

¹⁰⁸ OECD, *Guidelines on Corporate Governance of State-Owned Enterprises*, cit. at nt. 66.

On the other hand, the most recent OECD report, *State-Owned Enterprises and Sustainability: Leading by Example* (2025) (hereby also the 2025 OECD Report), shows more light on the link between SOEs and sustainability transition. Although the report acknowledges a clear rise in expectations regarding sustainability across both OECD and partner countries, it also points out that actual implementation in strategic and governance processes remains uneven and, in many cases, constrained by entrenched institutional practices. As highlighted in the considered case studies of paragraph five point one of this paper, OECD emphasises that the capacity of SOEs to act as drivers of sustainability transitions depends significantly on the clarity of their mandates, the level of alignment between ownership authorities and boards, and the ability to shield long-term environmental objectives from short-term political pressure.

The 2025 OECD report confirms that governance is the most critical structural bottleneck. The majority of SOEs operate under mandates in which fiscal or political targets take precedence over environmental performance – just like in the NPCC and Eskom cases described in paragraph five point one – and their boards often receive limited strategic direction from ownership bodies. This is usually accompanied by the insufficient presence of board-level expertise needed to address risks connected with transition pathways. Conversely, the 2025 OECD report shows progress in transparency and ESG-related disclosure, even if these practices still appear highly fragmented.

This structural ambivalence is evident in the Chinese context where, as showed in paragraph five point one, significant investments are directed towards renewable energy and green finance but they coexist an ongoing reliance on carbon-intensive assets. The 2025 OECD report shows that this duality is not unique to China but tends to be present in other jurisdictions where SOEs are involved in sectors that play a key role in sustainability transition strategies.

As best practices, the 2025 OECD report enumerates a limited group of Nordic countries with some recurring features: coherent ownership frameworks, highly professionalized boards with sustainability competencies, clearly articulated strategic mandates and reporting systems aligned with long-term transition goals. Among them, Finland's state ownership policy expressly

requires that sustainability expertise be considered in board appointments. Similarly in Austria the state holding entity (ÖBAG) chooses directors with recognized expertise in transition-related matters to improve the capacity of the board. On the other hand, Norway present climate risk assessments extended across all the portfolios as part of the state's ownership steering function. Similar mechanisms can be find in the Netherlands and Sweden, where advanced materiality analysis tools are adopted for restructuring processes and divestment decisions in high-emission sectors¹⁰⁹.

The data emerging from the cited sources appear to be consistent with the arguments made in this study: while SOEs are better positioned to face sustainability challenge, their corporate governance needs clear improvements: an higher degree of professionalization of board members, especially with regard to sustainability issues; strategic mandates aligned with the long-term sustainable transition and disclosure requirements that are not merely formal but effectively enforced.

In this sense, future research should consider: i) how ownership and control models can address political interference and enhance sustainability expertise in boards; ii) how sustainability mandates can better align with financial needs, particularly in capital-intensive sectors exposed to transition risks; iii) how SOEs can better leverage public-private partnerships and community-based governance to better fulfil sustainable development goals.

In conclusion it's worthy to underline that, as existing literature has already advised, SOEs could in the future be understood not only as tools of sustainable policy implementation but as actors that may enable multi-stakeholder co-governance, especially where services of general interest intersect with local vulnerabilities and ecological hurdles. Their described strategic placement within complex ecosystems could frame them as possible "*steward of the commons*" given that more participatory and community-based mechanisms are effectively incorporated into their mandates¹¹⁰.

¹⁰⁹ OECD, *State-Owned Enterprises and Sustainability – Leading by Example*, OECD Publishing, Paris, 2025.

¹¹⁰ For this see C. Iaione, M. Manna, *Le società a partecipazione pubblica come custodi dei beni comuni?*, 3 *Munus* (2024), 760 ff.