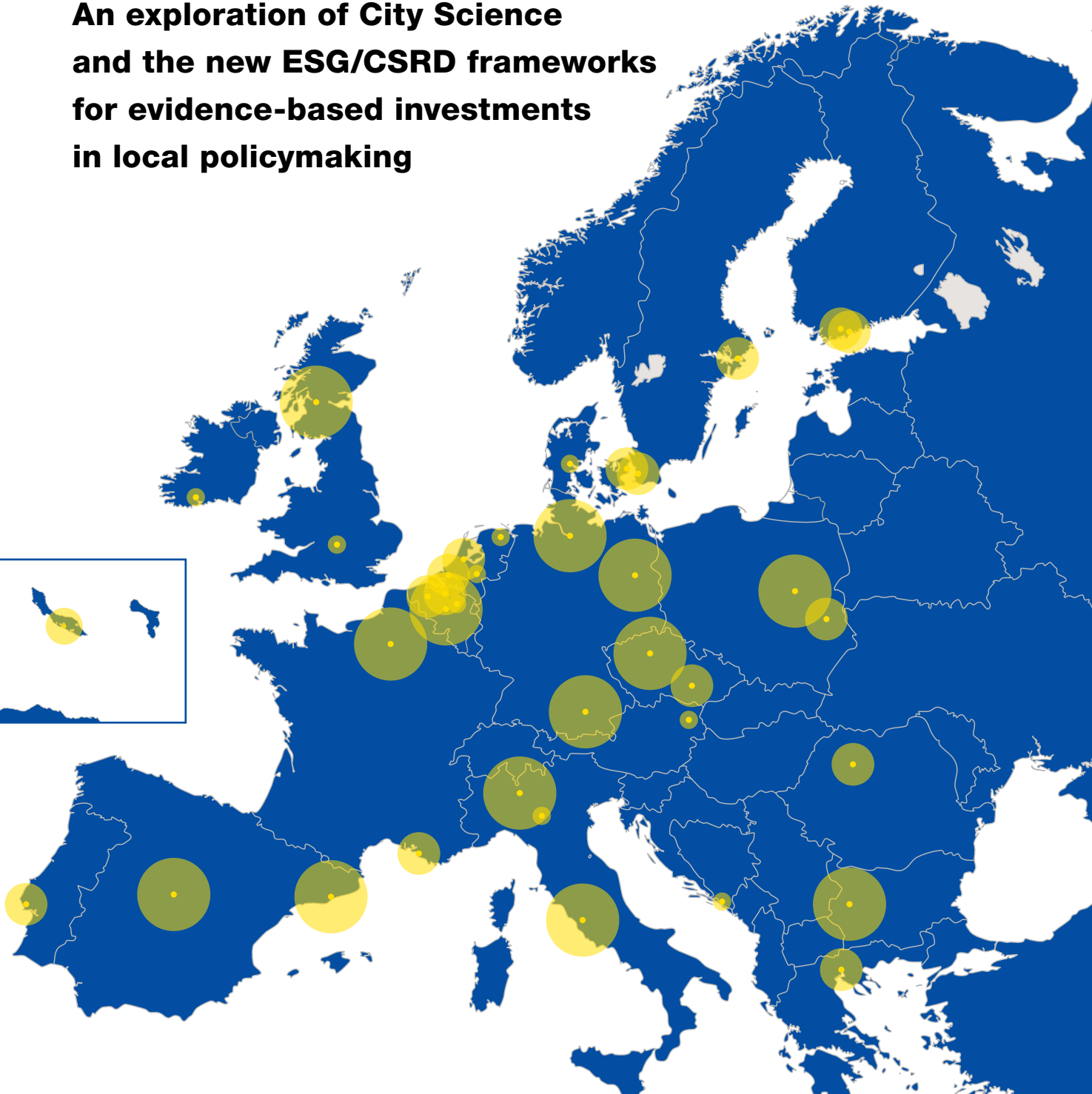
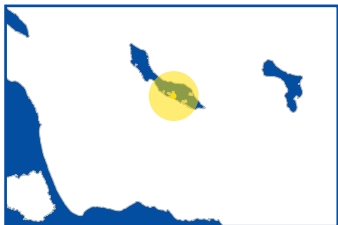




Social Impact for Climate Justice

**An exploration of City Science
and the new ESG/CSRD frameworks
for evidence-based investments
in local policymaking**





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investments in local policymaking.

Caroline Nevejan (ed.)

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 Design: Artgrafica, Zeeman + Beemster
 Publisher: Chief Science Office (CSO), City of Amsterdam

Websites:

<https://www.esginnovationcollective.com>
<https://openresearch.amsterdam/en/page/96894/esg-environmental-social-governance>
<https://citiesdao.org>

Amsterdam, 18th of April 2024
 First edition
 ISBN: 978-90-903853-6-5
 Print: Groen Offset Hoofddorp BV / ATP Digitale Media

Creative Commons: Creative Commons Attribution-ShareAlike 4.0 International

Citation: Nevejan C., Iaione C.F., Bamidis P., Goilo J., Mantziari D., Wupperfeld F., Gardiner M., 2024.
 Social Impact for Climate Justice, exploration of City Science and the new ESG/CSRD frameworks for
 evidence-based investments and local policymaking. Publisher: Chief Science Office, City of Amsterdam

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Introduction

Caroline Nevejan

New sustainable dynamics

Building upon the new EU legislation for the Corporate Sustainability Reporting Directive (CSRD) that is effective as of 1 January 2024, and building upon the new Environmental Social Governance framework (ESG) introduced by the World Economic Forum of Davos for the financial sector in 2019, this report offers cities and regions new avenues for collaboration between the public, private and civic sectors. Given the many intertwined crises humanity and the planet are facing, vulnerable communities require support and these new frameworks may contribute to such an effort.

CSRD/ESG frameworks demand that companies not only offer transparency of financial information in their annual report but also show the ecological footprint and social impact they have. Climate data can be achieved through a variety of global businesses by now. Social impact, however, is a local phenomenon. Anticipating this need to report, companies are already approaching cities to help them achieve social impact. For example, a company asks how it can achieve social impact in real estate and area development. A company may ask how to support the youth. Local policies and potential social impact are often not clear to companies, yet many are willing to contribute provided this is a clear trajectory. Eventually, CSRD/ESG will create a new sustainable dynamic among companies, which can help to achieve more social and sustainable impact in cities and regions.

This report investigates how local democratic bodies of governance, like a municipality, a regional office or a waterboard, can facilitate these new opportunities for social impact collaboration. For the sake of easy language and for the sake of including the private sector in making this new paradigm develop, we will now merge terms and use ESG/CSRD, realizing that ESG is term that is used by the private sector and that CSRD is the 'hard' evidence that the EU Commission requires.

Exploratory research into new ESG/CSRD frameworks

In 2023 the City of Amsterdam, under the leadership of the City Science Office, embarked on an exploration of the new ESG/CSRD landscape. The ESG Innovation Collective, a private company, brought the private and financial sectors into this exploration. Alongside partners from the university and the city of Berlin, other cities and universities of the City Science Initiative such as Reggio Emilia, Thessaloniki, and Barcelona, with over 50 experts from the private, public, social, and cultural sectors were invited to share their views on the opportunities and threats for cities and businesses arising from this new regulation. Experts from the private, public and civic sectors contributed. The consensus at the end of this exploration appeared to be

that this new accountability paradigm, which ESG and CSRD initiate, will be a game changer. As a result, a new 'ESG for Cities' framework (ESG4C) is being developed. ESG4C positions cities as experts on social impact for the 'S' in ESG, which also resonates with the social impact that is assessed in the CSRD reporting.

This report is published by the City Science Initiative (CSI), a network for Chief Science Officers of cities in Europe. The City Science Initiative started in 2019 when City Science Officers of different European cities and regions engaged in a shared reflection about their experiences, insights and practices. With the support of JRC¹ and DG R&I² of the European Commission, different other DG's and networks, the CSI seeks attention to the role and requirements of research in the variety of urban challenges cities and regions face. With DG R&I an overview of all the European research that is relevant for cities is published via openresearch.amsterdam. As a third space and in conversation around specific issues new needs of cities are explored between cities and with the EU Commission.

In the CSI conversations, it became clear that cities often do the same thing yet they do it in different ways. The introduction of the ESG/CSRD frameworks will consist of similar practices and solutions, yet they will also be different in the variety of communities in cities and regions. Understanding solutions and ways of working that are different to one's own, yet handle the same issue, offers inspiration and perspective. The first CSI report identified the specific nature of so-called 'City Science', arguing that co-creation and design are crucial in the relation between research and policymaking on the level of local democracy.³ In its second report the CSI made an inventory of the essential values, dynamics and organizational elements that need to be in place when engaging with City Science.⁴ This is the 3rd report that the CSI produces. It is concerned with the social impact that climate change triggers. It identifies new opportunities for local authorities to collaborate with universities, the public, private and civic sectors as a result of ESG and the new European Corporate Sustainability Reporting Directive.

This report, and the ones preceding it are written to inspire conversations between cities and regions, with the EU Commission and with local stakeholders. It hopes to trigger dialogues between cities and universities, professors and students, researchers and civil servants, policymakers and politicians to facilitate better collaboration between companies and social and cultural initiatives.

City Science Initiative

To do the same thing in different ways and learn

¹ JRC: The Joint Research Centre is the European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to European Union policy.

² DG R&I: The Directorate-General for Research and Innovation is a Directorate-General of the European Commission, located in Brussels, and responsible for the European Union's research and innovation policy and coordination of research and innovation activities.

³ <https://openresearch.amsterdam/nl/page/63027/2020-city-science-for-urban-challenges>

⁴ <https://openresearch.amsterdam/en/page/85091/urban-regional-research-ecology>

Chapter 1 positions cities and regions as experts on Social Impact and argues they should take position in the merging CSRD/ESG landscape.

Chapter 2 addresses the idea of Climate Justice in cities in which some vulnerable groups have to deal with more serious consequences of climate change than others. For cities to embrace Climate Justice specific investment plans between the private, public and civic sectors are required. This chapter offers insight in the ESG/CSRD frameworks in relation to other EU policies, it highlights the role City Science Officers can play and offers several case studies from all over the world in which civic, public and private sectors successfully collaborate.

Chapter 3 on Universities as Catalysts for Change, a specific perspective of the new generation researchers is chosen. Based on workshops with young researchers in several EU cities, specific propositions are given to help Universities play their role of significance in the local context they are part of.

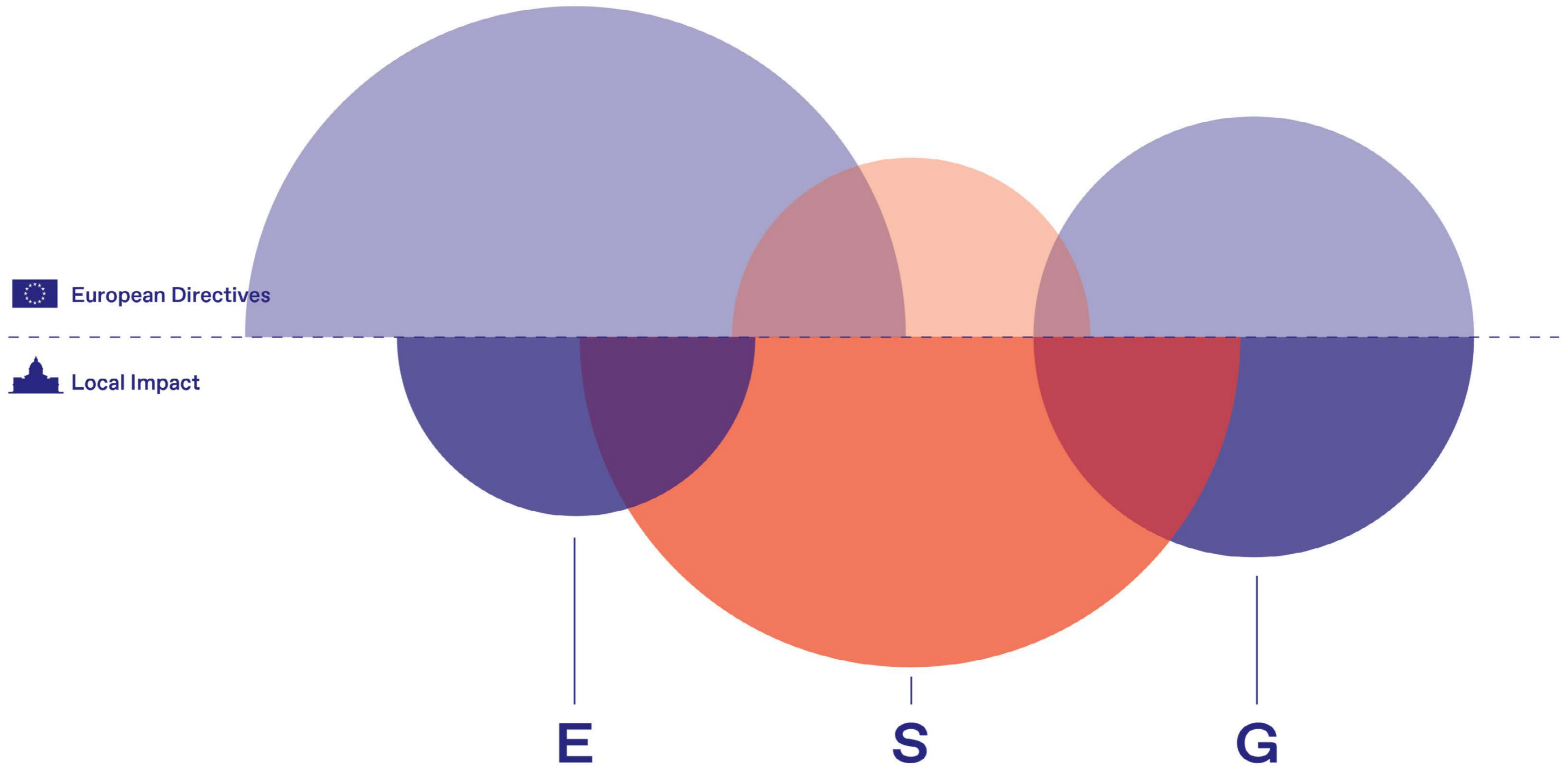
Chapter 4 documents the exploration of ESG for Cities, which took place in 2 one-day conferences in Amsterdam and 4 online deep dives. Here several cities of the CSI network discussed with the private sector and the civic sector the potential of ESG for Cities. All presentations can be seen at <http://openresearch.amsterdam>. This chapter portrays the acquired insight and also shows how for a city like Amsterdam these new frameworks can make a difference.

Chapter 5 sketches the demo of the so called CitiesDAO to facilitate the creation of new partnerships and assess the social impact of these collaborations. Crucial in this dynamic is the so-called ESG Hub, which orchestrates networks of companies and social and cultural initiatives and facilitates the telling of stories and measuring of impact. Aligning stories to orchestrate new collaborations, these are then measured by a participatory voting system on blockchain technology offering a level of transparency which accountants can readily recognize and validate.

Chapter 6 offers the gathered findings of a workshop in Brussels where over 20 cities participated with people from the private sector, civic initiatives, universities and the DG Research & Innovation of the EU Commission.

In this report, we argue that as a city we should embrace the dynamics around CSRD and further explore how to plot with a concrete focus on urban tasks. The ESG/CSRD offers companies new starting points for the financial sector and the companies increased local cooperation around certain themes, thus providing cities and regions with new opportunities to increase their impact on local social and sustainable goals. Universities can be a local catalyst for change involving students and researchers to make the necessary innovation happen.





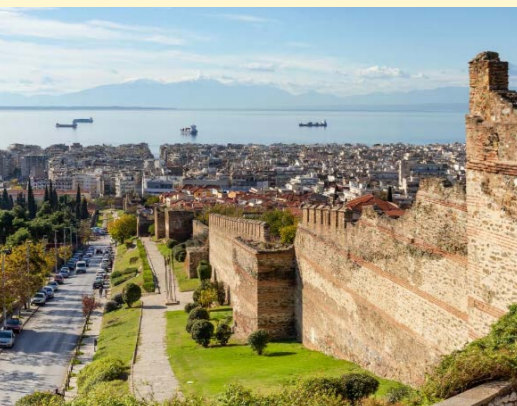
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Thessaloniki

Navigating the Path to Sustainability: Thessaloniki's Journey Towards ESG Excellence

Thessaloniki, the vibrant city nestled in northern Greece, stands at the intersection of cultural heritage and modern innovation. While it may not yet be considered a mature city in the field of Environmental, Social, and Governance (ESG) application, Thessaloniki is actively charting its pathway towards sustainability. Through various initiatives and partnerships, the city is indirectly promoting ESG principles, leveraging best practices, and fostering a culture of responsibility and resilience.



With a population of over 1.12 million in its metropolitan area (Municipal population 325,000), Thessaloniki recognizes the importance of addressing contemporary challenges while preserving its rich history and cultural identity. It is Greece's second largest city, home to the country's second largest

export and transit port, and the nearest European Union port to the Balkans and Black Sea zone.

Despite its midsize status, the city has been selected to join prestigious networks such as the **100 Resilient Cities (100RC)** program. This membership provides a unique opportunity for Thessaloniki to develop a robust, participatory plan to tackle current and future challenges, including those related to sustainability and ESG.

One notable endeavor in Thessaloniki's journey towards sustainability is its commitment to **the EC's mission, regarding the 100 neutral climate cities by 2030**. This ambitious goal aligns with global efforts to combat climate change and demonstrates the city's dedication to environmental stewardship. By setting such targets, Thessaloniki is positioning itself as a leader in sustainable urban planning and social innovation.

Furthermore, Thessaloniki's involvement in initiatives like the **NUDGES Interreg MED Programme**, one of the core initiatives in the **Green Living Areas pillar**, highlights its proactive approach to promoting sustainable practices. Through this collaborative effort, the city with the scientific coordination of the **AUTH Medical School**, and particularly the **AUTH Lab of Medical Physics and Digital Innovation**,

is exploring novel support tools and leveraging behavioral incentives to drive positive change towards a sustainable and resilient urban environment. By harnessing insights from behavioral science, Thessaloniki aims to encourage more sustainable behaviors among its citizens and businesses, indirectly promoting ESG principles in the process, since its piloting activities are related to responsible food production & consumption (local farmers to be adopted by local food store owners), on the basis of the Mediterranean diet principles.

The city's commitment to sustainability is also evident through its participation in the **ESG4Cities program**. By collaborating with stakeholders from academia, finance, governance, and civil society, Thessaloniki is working to enhance social impact within the community. Initiatives such as the **Thessaloniki Green City Action Plan** reflect the city's investment in green infrastructure, carbon emission reduction, and the enhancement of public spaces, all of which contribute to a more sustainable and resilient urban environment.

Additionally, through its participation in the ESG4Cities programme, Thessaloniki's engagement with the Corporate Sustainability Reporting Directive (CSRD) underscores its dedication to transparency and accountability within the private sector. While

businesses in Thessaloniki may be in the early stages of adopting ESG practices, the city's commitment to promote corporate sustainability and multi-stakeholder collaboration for a resilient and green city signals a growing awareness of the importance of responsible business practices.

Moreover, a) Thessaloniki's urban living lab, as part of the **Thessaloniki Action for Health and Well-Being Living Lab** monitoring citizen's health & wellbeing in the urban everyday living setting, trying to improve their everyday routines and outdoor activities towards a more responsible for the urban environment and health, b) **the City's food council, part of FOOD TRAILS Initiative** on of the responsible food production & consumption, the zero food waste and citizens' awareness towards a healthier nutrition, c) **the Thessaloniki City of Gastronomy and Member of the UNESCO Creative Cities**



Network, and other grassroots initiatives provide platforms for experimentation and innovation in sustainability, climate change, and circular economy.

In response to growing concerns about access to healthy food and sustainable products, various initiatives have emerged to address these challenges in urban environments. These initiatives aim to minimize the environmental impact of food systems while promoting healthy nutrition for all citizens. Campaigns advocating for healthy eating habits and urban agriculture have gained traction, with policymakers increasingly engaged in supporting these efforts. Efforts to optimize the food supply chain seek to ensure that nutritious options are readily available and accessible to all. Active community involvement and civil society initiatives play a crucial role in driving positive change, while improving citizens' overall quality of life. Additionally, incentivizing the implementation of sustainable practices is essential for fostering a culture of environmental stewardship and

well-being within urban communities. These collaborative efforts involve citizens, entrepreneurs, policymakers, experts in-field, and other stakeholders in shaping the city's sustainable future, fostering a culture of mutual cooperation, trust, and support. Despite not yet being considered a mature player in the ESG field, these initiatives cultivate the ground towards a responsible society, while enhances the public-private partnership and their readiness in view of a future adoption of the ESG framework.

In conclusion, while Thessaloniki may not yet be considered a mature city in the realm of ESG application, it is actively pursuing its pathway towards sustainability and resilience. Through partnerships, initiatives, and grassroots efforts, the city is indirectly promoting ESG principles, leveraging best practices, and fostering a culture of responsibility and innovation. As Thessaloniki continues its journey, it serves as a shining example of how cities can lead the way towards a brighter, more sustainable future.

1 Social is Local

Caroline Nevejan

Caring

Caring for our environment and caring for each other is a daily pleasure and a fundamental societal task. In the strive for well-being and equality of opportunity within planetary boundaries, residents, visitors and businesses as well as large corporations, communities and governments each have their specific role and responsibility. Cooperation is essential to realise today's urban and regional challenges. In this context, the introduction of the Corporate Sustainable Reporting Directive (CSRD) – the new European sustainable reporting directive to be phased in from 2024 – offers new opportunities.

Beyond financial reporting

The introduction of the Corporate Sustainable Reporting Directive (CSRD) can contribute to the global challenges of Climate Justice in which ecological impact and social justice are connected. This goes beyond financial reporting, paving the way for an assessment of companies contributions to societal and environmental well-being. Challenges lie in facilitating new kinds of collaboration and making social impact measurable and effectively integrating it into Ecological, Social Governance (ESG) reports. ESG/CSRD offers new opportunities to align local social policy ambitions with corporate ESG ambitions with evidenced based approaches to social investment.

Corporate Sustainable Reporting Directive (CSRD)

Companies will be required to report not only on their financial operations. They must also provide insight into their environmental and social impact. The assumption is that those companies which show a higher ambition and more impact in the ESG/CSRD reporting will eventually acquire a better market position in (re)financing and sales, in the relationship with suppliers and customers, the appreciation of customers and in attracting captivating and binding talent.

The CSRD will apply to Organizations of Public Interest (OOBs) as early as fiscal year 2024. These include large banks, -insurance companies, -and -listed companies. For other larger companies, the CSRD will be introduced from 2025 and for listed SMEs from 2026.

Unique opportunity for transformation

ESG/CSRD provides a unique opportunity for cities to play a headline role in this transformation. Cities can engage with the ESG/CSRD regulations, as they already orchestrate and regulate various public, private, and civic initiatives involved in the sustainable transition. Based on local policies, which are the result of democratic processes, cities can define Social Impact and

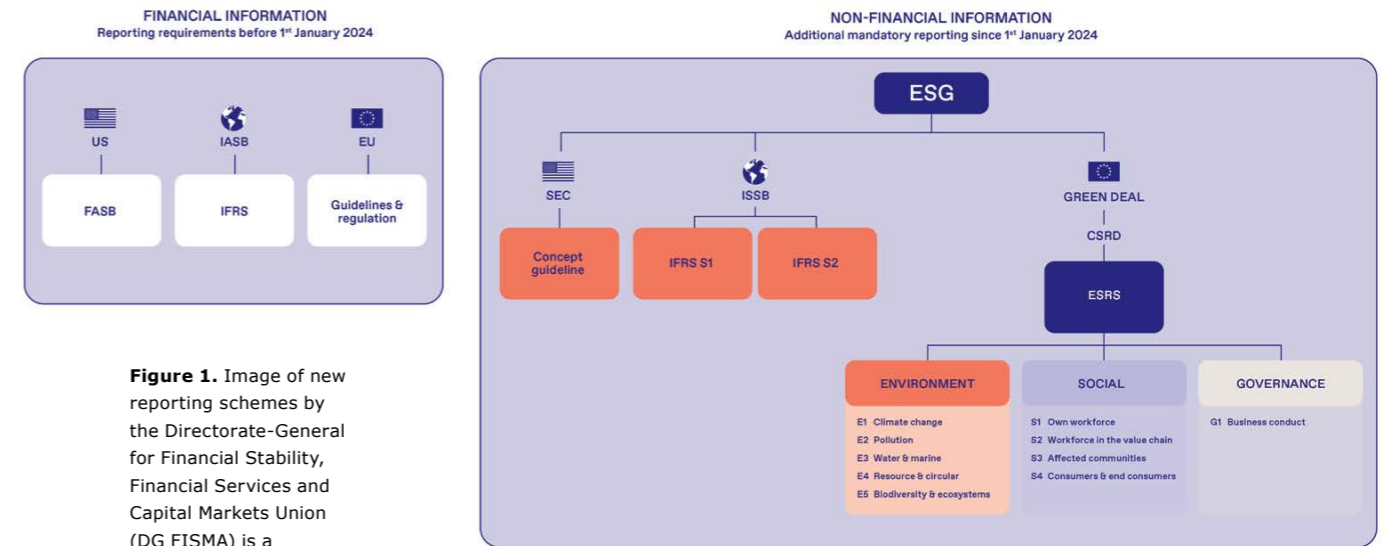


Figure 1. Image of new reporting schemes by the Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA) is a Directorate-General (DG) of the European Commission

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define the standard for S in the emerging ESG landscape. Moreover, cities have deep knowledge of problems and potential solutions on the local level of neighbourhoods and streets. One of the main challenges for any city is to finance local initiatives and the implementation of ESG/CSRD is a possibility to do it with the help of the private sector.

ESG/CSRD is not 'yet another model' for looking at and/or governing the city. The CSRD provides a standardized reporting structure that applies to all existing models and initiatives like Doughnut Economics, B Corp, Economy of the Common Good, Social Entrepreneurship and more. The mandatory reporting of non-financial information, provides insight into the social and sustainable impact companies realize, nothing more. But it is mainly the dynamics behind it that offer new opportunities for cities and regions to realize more *evidence based* impact with both the private and civic sectors.

This report is the beginning of a new adventure with which we hope to inspire other cities to join this ESG for Cities (ESG4C) process. ESG/CSRD frameworks are a challenge for the private sector to comply with. For a city, these frameworks offer an opportunity for developing new ways of working among the many stakeholders that make a city region.⁵ The process is challenging and timely, yet holds significant opportunities. All cities have to find new means and collaborations to make their specific needs for climate adaptation and mitigation happen in such a way that their whole constituency will benefit. While climate change is a global development, its impact happens in innumerable local contexts. In cities and regions, the

The dynamics behind it

ESG for cities

⁵ In the yellow pages of this report, potential best practices of collaboration between public, private and civic sectors are described to trigger the imagination of how an ESG4C framework may help to create social impact for climate justice.

impact of climate change affects social, cultural, economic and political relations deeply. Adapting and mitigating climate change demands new alignments and shared actions between all involved. Between the public, private and civic sectors, this report argues, such collaborations need to be established locally because here climate change and social impact are directly related. Working with the private and civic sectors in the context of the new ESG/CSRD regulations in local communities has the potential to make a significant impact by determining new methods for evidence-based ESG investments from neighbourhood through to municipal, regional and national levels.

Where dashboards for ecological impact are designed for general global use, social impact is a local phenomenon. Cities know all about social impact, it is their daily business. In the collaboration between social and cultural organizations, SME's and larger companies, local schools and universities, cities create well-being for their residents and visitors. Local urban and regional democracy define priorities for social and cultural impact which result in policy plans and implementation trajectories. Local authorities also acquire professional data on social and economic developments to monitor what happens and define what is needed next. Social impact is the result of a democratic process in cities and regions. For these reasons, Regional Province Offices, Municipalities and Waterboards for example can take a crucial position in the emerging ESG/CSRD landscape and define the S of Social Impact, in relation to the well-defined ecological standards.

As of 2014, different concepts and regulations to promote sustainable finance have been launched. In 2020 the European Parliament embraced the so-called Green Deal.⁶ Striving to be the first climate-neutral continent by 2050, the EU Commission aims to have "no net emissions of greenhouse gases by 2050, to have economic growth decoupled from resource use, and to leave no person and no place behind." In the short term the ambitions are to minimize at least 55% less net greenhouse gas emissions by 2030 (compared to 1990 levels) and to plant 3 billion additional trees in the EU by 2030. As an incentive for change, the EU Commission launched the New European Bauhaus to emphasize the interdisciplinary and cultural dimension of change by subsidizing a variety of projects between the public, private and cultural sectors. The European Urban Initiative explicitly aims to facilitate learning between cities, challenging cities yearly to submit their Urban Innovation Actions. Also, the 100 Climate Neutral Cities program was launched in which 112 EU cities were selected to be frontrunners in establishing new local partnerships for climate mitigation to arrive at net zero emissions by 2030.⁷ However, despite having various

⁶ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

⁷ Activities of the 100CC program are documented here: <https://netzerocities.eu>

agreements and plans to address climate change (Paris Agreement, Green New Deal, Fit for 55, REPowerEU, Green Deal Industrial Plan for the Net-Zero Age), cities can't keep up with the pace of execution, leading to significant volatility in local policy and a constantly changing landscape.

Cities and regions vary in their perspectives on sustainability and resilience, allowing for diverse circular economy strategies and requirements for social and political engagement. Fragmentation between institutions, public bodies, and companies makes it challenging to effectively. More diverse impact frameworks and scenarios for climate change mitigation are necessary for local social policies to be effective. A 2023 global benchmark study on urban resilience by the Economist Impact Institute defines 4 pillars for urban resilience: critical infrastructure, environment, socio-institutional and economic characteristics define a city-regions resilience which is crucial for good response and recovery in preparation, during and after crises.⁸ The study argues that "Natural disasters and human catastrophes can lead to cities as flashpoints for instability and conflict due to poverty and inequality." Connecting the climate dimension to the social dimension is crucial for successful climate adaptation and mitigation. This is referred to as the idea of Climate Justice. In Chapter 2 this is elaborated upon.

The new ESG/CSRD dynamic may be able to support this need to overcome fragmentation and engage in local collaboration. This is particularly true at the local level where fragmented institutions, public bodies, and companies can benefit from a common framework. Cities are often viewed as the physical embodiment of climate policy, but despite their potential to offer solutions, they do not have adequate resources to implement climate mitigation and adaptation strategies at the necessary speed and scale. Also, cities have limited agency in national and international politics and trade agreements, while these affect life in cities significantly. They are hindered by a lack of funding and capacity, and stakeholders within their value chain are ill-prepared to take collective action. The findings of major international scientific assessments, such as reports by IPCC and IPBES, are not easily translated to local and diverse urban landscapes. Moreover, despite the availability of tools and options, not all have been effectively utilized due to a lack of understanding and the EU's complex regulatory landscape. Cities are mostly geared towards the maintenance of a good and healthy public sphere in which residents, visitors and entrepreneurs can thrive. People live here and now and do stuff together in the here and now. There is little engagement in municipalities to tune to others elsewhere, while collaboration is needed in knowledge development, research and innovation for the many aspects of the needed transition. This is where companies and universities can offer vital contributions to necessary local transitions.

Climate justice

Fragmentation and lack of local agency

⁸ A 2023 global benchmark of urban risk, response and recovery: <https://impact.economist.com/projects/resilient-cities/>

Social Impact as result of local democracy

EU policy

Universities as catalyst for change

With many young people fearing the future and with many professionals feeling a lack of agency in the emerging climate crisis, it is of vital importance to develop new ways of working. Universities can play a fundamental role through dialogue and co-creation for the development of new methodologies for implementing measures for climate adaptation which include all vulnerable communities as well. Where cities are designed to maintain a status quo, universities are designed for research and innovation. The social impact of climate change requests to bridge the local and the global in new ways. City Science Offices in different cities are developing methodologies for making this work. The recent CSRD legislation and financial ESG framework support steps in this direction.

A new generation of multi-stakeholder partnerships

ESG For Cities (ESG4C) creates a solution by opening up new avenues for financing and manifesting local climate mitigation by putting cities center stage in the emerging ESG dynamic. A more inclusive approach, leveraging a new generation of multi-stakeholder partnerships across the public, private, knowledge, social, and civic sectors, will address the accelerating pace of climate change. This approach must consider both mitigation and adaptation efforts, particularly for vulnerable social groups. While climate change is often perceived as an engineering or technical problem, it cannot be tackled without a strong social and interdisciplinary foundation for obtaining democratic legitimacy and public support. With the help of ESG/CSRD, universities and companies may play a role here because ESG/CSRD offer new incentives to engage. Eventually, this will allow for levels of comparison between companies and between cities and regions which were not possible before. Such a comparison affects reputation and reputation affects economic bandwidth and ultimately well-being of all.

Hundreds of streets

In cities a sustainable relationship between society and ecology happens at street level. City streets account for most outdoor public spaces (UN-Habitat, 2013), making them the fundamental component of a city's spatial layout. The configuration of the street network, among other core aspects of the physical environment, defines mobility, accessibility, connectivity and areas of no litter or pollution. It can promote or stifle social interactions and it influences feelings of happiness and safety. Streets are gateways to basic services, amenities, and recreation. At different times during the day or year, they can expose populations to heat, cold, flooding, and harmful emissions. Understanding the street network

is critical, therefore, in assessing people's health, and quality of life at a granular level. Knowing what is truly happening, through multiple data points and extensive interactions with stakeholder groups, reveals specific spheres for each neighborhood, allowing for effective prioritization of impact areas.

Such spheres are defined by how people move, connect, and are granted access, plus how these factors evolve during the day and night, from season to season, and how they are impacted by broader factors, such as recessions and health emergencies. Local democratic structures address this granular level of local knowledge in local policy plans, which is why cities and regions are crucial for understanding where and how social impact takes place whilst respecting population's data privacy rights. Positioning cities as experts on 'Societal Impact', the 'S' in ESG, changes future negotiations between cities and regions and the private sector.

Cities are experts on the 'S' in ESG



In the Green Hub in Amsterdam Zuidoost, people are making 'Climate Curtains' to isolate houses for making the energy bills lower.



The Green Hub, a community centre in Amsterdam Zuidoost, collaborated with Kate Raworth (author of Doughnut Economics) in establishing the Doughnut Alliance for making Donut Deals in which one ecological goal en three social goals are realized in a collaboration between more than two organizations.

Federica Burini, Alessandra Ghisalberti, Giovanna Barigozzi, Elisabetta Bani, Mariafrancesca Sicilia
City and University of Bergamo

Bergamo

Bergamo represents a balanced synthesis of tradition and innovation, with a rich portfolio of cultural heritage and natural assets and entrepreneurship vocation, at the intersection of local and global trends.

The territory is characterised by a strong cultural and artistic heritage in the Bergamo city centre and a strong connection of local communities with the natural landscapes and cultural heritage of mountains and countryside of the entire province.

Due to the small-medium size dimension of the city and University itself, all of the actors involved in the ecosystem (University, Municipality, Province administration, companies, citizen associations) can count on a proximity that fuels fruitful relationships and fosters a continuous dialogue, a crucial value towards the mutual understanding of each others' needs and peculiarity.

The Bergamo ecosystem is a virtuous manufacturing model (with specialisation in mechatronics & machinery, rubber and plastics, electric equipment, chemicals, metals, textiles, food, automotive) with a high entrepreneurial propensity for innovation and a strong strategic collaboration between the various key players for innovation and technology transfer, such as universities, research centres, industrial associations and companies

(small medium sized companies, multinational companies at worldwide level). Some relevant examples showing the fertile synergy in the local territory – mutually animated by the University, local administrators and entrepreneurial actors – to tackle the global challenge of sustainability are described in the boxes below.

Hackathon event on Sustainability

The University of Bergamo, in partnership with A2A (local company active in energy supply), organises a Hackathon on the themes of Transition Energy. Students from all undergraduate and graduate courses will compete against UniBG master's degree on 5 challenges.

A unique training opportunity contributing to the creation of soft skills: participating in a multi-disciplinary project, encouraging creativity and inventiveness, interfacing with industry experts and learning to evaluate and develop and present a project.

The themes of the challenge are designed to give rise to and materialise projects focused on sustainability that enhance the opportunities arising from the green transition, involving UniBG students, as actors directly interested in taking part in the transition towards a more sustainable city model. The students will have the opportunity to work closely with experts from the academia, industry and the territory, developing projects that will be then presented to a

jury of experts and a popular jury. A2A's role as promoter and financier is fundamental for the initiative, but also represents an active part in defining the Challenges and in Mentor roles.

A sustainable territorial development strategy

PROJECT Socio-territorial Analysis and Co-Design Process for the new Local Development Plan 2023-2027 of the LAG (Local Action Group) of the Hills of Bergamo

The project aims to provide scientific support to the LAG of the hills of Bergamo to activate a sustainable strategy for the period 2023-2027 both on a social level and on the governance level by activating a process of co-design with the various stakeholders of the area for the new Local Development Plan 2023-2027.

It is part of a long-standing experience of the University of Bergamo in the development of multilevel governance methodologies, initiated through participatory processes, as well as through socioeconomic and territorial analyses aimed at the regeneration of territories in a sustainable perspective. The role of the University is to support a strategic phase for the LAG in launching a new governance process that involves a Regional park and 18 municipal-

ities to define a new strategic and integrated territorial development strategy, under the banner of sustainability shared by public and private stakeholders. The project aims at creating a system of governance where public and private institutions can work together with the civic society, also considering the role of enterprises and businesses working in the area of the LAG, in order to better focus on the potentials of future opportunities for local sustainable circular economy solutions and creative industries having also social and environmental impacts.

Bergamo Next Level (BNL)

Since 2021 Bergamo Next Level is the University's main Public Engagement initiative, created in collaboration with the Pro Universitate Bergomensis Association, to offer the city and province a series of events open to the public and develop innovation and territorial cohesion projects from a sustainable perspective. Our professors organise yearly workshops, open lessons, conferences, artistic exhibitions and debate events on relevant topics connected to research and its impact on civil society. The strength is the interdisciplinary and the cross sectoral nature of the panels. As speakers, different players of the territory (belonging to associations, companies, local administrations, university,

artists) are involved with the aim of providing a broad view and perspective of the related topic and increasing the engagement level of the general audience. The global challenge of sustainability has been fully integrated in our local dimension and, in accordance with the UN 2030 agenda, the same topic has been deeply addressed in all the three editions of the initiative, tackling different assets and multifaceted issues such as: SDGs and ESG standards; corporate and social health systems sustainability; renewable energy sources; production & sustainable development; environment & climate change (carbon neutral transition, circular use of resources, land management and re-use, mobility system upgrade, sustainable tourism). The initiative has represented an occasion to open the academic knowledge on 'sustainability' to civil society and show the existing interconnection of our University with the entire Bergamo ecosystem, especially with the entrepreneurial environment – which assumes a crucial role in our reality due to the strong manufacturing vocation of the territory – and local policy makers. The synergy of multiple actors locally involved represents the starting point to address simultaneously economic, environmental and social challenges for an interdisciplinary research approach able to generate impactful results.



2

Governance is Impact for Justice

Sustainable Innovation and Engagement of Vulnerable Communities as the Source Code of a Just Sustainable Finance and Governance⁹

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1. On the Principle of Sustainable Innovation

Impact, Horizon Europe, mission oriented innovation

This study attempts to demonstrate that according to the EU law and policy framework innovation is essentially oriented towards sustainability and that therefore 'sustainable innovation' is the defining feature of the EU policy and investment approach addressing the pressing territorial and social divides that the ecological, energy, and technological transitions are generating.¹⁰ This definition builds on the existing literature¹¹ and the current policy framework on R&I.¹²

Tapping into EU law for innovation

This hypothesis taps into the quest for a qualified version of the principle of innovation¹³ proposing to embed the dual imperative of improving economic performance while concurrently enhancing environmental and social goals, both in the immediate and long-term scenario. Innovations are supposed to deliver enhancements across various dimensions – be it products, services, technological advancements, or organizational processes.¹⁴

Balancing social and ecological prosperity with innovation

Ideally, sustainable innovations are expected to not only yield better economic and technological positive outcomes, but also bring about tangible improvements in the environmental and social spheres.¹⁵ The positive imaginary that surrounds these sustainable innovations would require them to land positive outcomes and impacts that extend beyond firms and governments immediate operations, thereby contributing to broader societal and ecological wellbeing.¹⁶

In essence, sustainable innovation requires firms and governments to transcend their traditional and actively engage with all the stakeholders, in particular vulnerable communities. It represents a multifaceted and dynamic approach characterized by the simultaneous pursuit of economic prosperity,¹⁷ environmental stewardship, and social wellbeing to drive positive change and contribute to a more sustainable future.¹⁸

⁹ NIAS-KNAW 2023-2024 Fellow, Professor of Public Law of Innovation and Climate Change at Luiss University, City Science Officer for the City of Reggio Emilia. This study is supported by the European Union's Horizon 2020 research and innovation programme under grant agreement No 959420 for the EUARENAS.EU Project. A longer and more elaborate version of this study has been accepted for publication on Munus (<https://www.rivistamunus.it/>)

¹⁰ On sustainable innovation see for a useful overview V. CILLO et al., Understanding sustainable innovation: A systematic literature review, in *Corp Soc Resp Env Ma*, 2019, 26, pp. 1012–1025 and O. AL-JAYYOUSI, H. AMIN, H.A. AL-SAUDI, A. ALJASSAS, E. TOK, Mission-Oriented Innovation Policy for Sustainable Development: A Systematic Literature Review in *Sustainability*, 2023, 15(17):13101.

¹¹ Conceptually the principle can be extrapolated by combining M. MAZZUCATO, Mission-Oriented Innovation Policies: Challenges and Opportunities, in *Ind. Corp. Change*, 2018, 27, 803–815; R. BROWN, Mission-oriented or mission adrift? A critical examination of mission-oriented innovation policies, in *European Planning Studies*, 2021, 29(4), pp. 739-761; J.D. SACHS, G. SCHMIDT-TRAUB, M. MAZZUCATO, D. MESSNER, N. NAKICENOVIC, J. ROCKSTRÖM, Six transformations to achieve the sustainable development goals, in *Nature sustainability*, 2019, 2(9), pp. 805-814; J. ROCKSTRÖM, J. GUPTA, D. QIN, S.J. LADE, J.F. ABRAMS, L.S. ANDERSEN, D.I. ARMSTRONG MCKAY, X. BAI, G. BALA, S.E. BUNN, D. CIOBANU, Safe and just Earth system boundaries, in *Nature*, 2023, pp.1-10.

¹² See Council Conclusions on the Future governance of the European Research Area (ERA), 26 November 2021; Council Recommendation (EU) 2021/2122 of 26 November 2021 on a Pact for Research and Innovation in Europe; Communication from the Commission to the European Parliament and the Council, 2022 Strategic Foresight Report, Twinning the green and digital transitions in the new geopolitical context, Brussels, 29.6.2022 COM(2022) 289 final; Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, AGreen Deal Industrial Plan for the Net-Zero Age, Brussels, 1.2.2023 COM(2023) 62 final.

¹³ According to K. GARNETT, G. VAN CALSTER, L. REINS, Towards an innovation principle: an industry trump or shortening the odds on environmental protection?, in *Law, Innovation and Technology*, 2018, 10:1, 1-14, the long-standing debate and contrast between the constitutional level precautionary principle (see articles 11, 114, 191 TFUE for environmental protection, and articles 12, 168, 169 TFUE for consumer protection) and the permissionless innovation principle (see article 173 TFUE requiring to devise an industrial policy that can foster 'better exploitation of the industrial potential of policies of innovation, research and technological development') can be solved if "A qualified innovation principle that encourages reasonable risk-taking while accepting an element of responsibility could help square the EU's twin (though potentially incompatible) objectives of fostering innovation and offering a high level of environmental and consumer protection".

¹⁴ See the Oslo and Frascati Manuals.

¹⁵ Article 3 (3) of the Treaty on European Union in establishing the internal market states that it "shall work for the sustainable development of 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 protection and improvement of the quality of the environment. It shall promote scientific and technological advance". (emphasis added). See also A. HEMPHILL, The innovation governance dilemma: Alternatives to the precautionary principle, in *Technology in Society*, Volume 63, 2020, 101381.

¹⁶ To a certain extent it could be argued that sustainable innovation is one of those political economy and constitutional imaginaries of prosperity Marija Bartl talks about in her recent contributions. See M. BARTL, Imaginaries of Prosperity as Constitutional Imaginaries, in J. KOMÁREK (ed.), *European Constitutional Imaginaries: Between Ideology and Utopia*, Oxford University Press, 2023, pp. 360-377; Id., Towards the Imaginary of Collective Prosperity in the European Union (EU): Reorienting the Corporation, in *European Law Open*, 2022, 1(4), 957-986.

¹⁷ C. MAYER, *Prosperity: Better business makes the greater good*, Oxford University Press, 2018.

¹⁸ S.R. FOSTER, C. IAIONE, *Co-cities: Innovative Transitions Toward Just and Self-sustaining Communities*, MIT Press, 2022.

The link between horizon calls and breakthrough innovations

Sustainable innovation emerges as a defining feature within the EU research and innovation stimulus program and the regulation governing it. Indeed, the Horizon Europe program and regulation delineates the trajectory of research and innovation from 2021 to 2027, succeeding its predecessor, Horizon 2020. Considered as the largest transnational research and innovation endeavor globally, Horizon Europe embodies the Union's unwavering commitment to advancing scientific frontiers and fostering breakthrough innovations. Central to its mission is the facilitation of research and innovation activities, predominantly channeled through open and competitive calls for proposals. Under the auspices of the European Commission, Horizon Europe operates with a mandate to propel scientific inquiry towards addressing societal challenges through civil applications exclusively.

Deep regulatory ties between sustainable innovation and Horizon Europe

The Horizon Europe regulation is deeply inspired by the paradigm of sustainable innovation. It aims to steer scientific and technological endeavors towards challenges and solutions that not only expand the boundaries of knowledge, science and technology but also address pressing societal needs in a sustainable manner. This entails fostering research initiatives that not only stimulate economic growth but also prioritize environmental conservation and societal wellbeing.¹⁹ The concept of "sustainable innovation" is expressly cited at least twice in the Horizon Europe Regulation:

a) in recital 51 where the regulation established that the Horizon Europe program "should also seek to remove barriers and boost synergies between science, technology, culture and the arts *to obtain a new quality of sustainable innovation*. The measures taken to improve the involvement of citizens and civil society in the supported projects should be monitored;"

b) in the establishment of Pillar III – Innovative Europe where it identifies as one of the European Institute of Innovation and Technology (EIT) areas of intervention the creation of 'sustainable innovation ecosystems across Europe' which in Annex II of the regulation are further depicted as ecosystems through which "(i)n accordance with the EIT Regulation and the Strategic Innovation Agenda of the EIT, the EIT plays a reinforced role in strengthening sustainable challenges-based innovation ecosystems throughout Europe".

In addition, the Horizon Europe Regulation makes express reference to the United Nations Sustainable Development Goals (SDGs) in recital 2 and to the 2030 Agenda for Sustainable Development (the '2030 Agenda'), the SDGs and the Paris Agreement adopted under the United Nations Framework Convention on Climate Change (the 'Paris Agreement') in

¹⁹ See 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. This seven-year program, synchronized with the EU's long-term budgetary plans, is endowed with a substantial financial allocation totaling 95.5 billion euros.

Building international science diplomacy

recital 10 establishing that the program implementation should "reinforce the pursuit of the SDGs and the commitment of the Union and its Member States to implementing the 2030 Agenda to achieving *its three dimensions – economic, social and environmental* – in a coherent and integrated manner" (emphasis added).

Finally, the Horizon Europe regulation foresees the organization of Missions which according to recital 24 are "high-ambition, wide-scale initiatives" that would enable the Horizon Europe program to achieve "a transformative and systemic impact for society in support of the SDGs, also through international cooperation and science diplomacy". According to article Missions shall use SDGs as sources for their design and implementation, be inclusive, encourage broad engagement and active participation from various types of stakeholders from the public and private sector, include citizens and end-users, have wide, scientific, technological, societal, economic, environmental or policy relevance and impact.

But the use of the research and innovation agenda for sustainable development has also a science diplomacy side and therefore it is one of the tools the EU intends to use to tackle the global divides produced by the technological and climate transitions.

In 2021, the European Commission adopted a communication on a global approach to research and innovation – the new European strategy for international cooperation. In 2022, the European Parliament and the EU Member States responded to the communication with respectively a resolution and a declaration by the Council presidency.²⁰

Indeed, the Global South is increasingly seen as vital for tackling environmental crises and social inequalities. Emphasizing social innovations aimed at changing current trajectories, there is a rising acknowledgment of the research and innovation potential in finding solutions. R&I can play a crucial role in fostering a just innovation, yet the challenge lies in redirecting and transferring knowledge towards serving marginalized communities.²¹ These communities, facing physical constraints and social exclusion, benefit from sustainable innovation initiatives that offer novel solutions while promoting sustainability goals. Such initiatives demonstrate a commitment to social and environmental value, bridging divides, and promoting human and ecological sustainability.

Climate justice in the global south

²⁰ EUROPEAN COMMISSION, *The Global Approach to Research and Innovation Europe's strategy for international cooperation in a changing world*, 18.05.2021, COM(2021) 252 final, which calls for the mobilization of the world's researchers and innovators as a crucial element for the well-being of citizens and future generations and it identifies cooperation across borders on a scale never seen before to develop innovative solutions to deliver just green and digital transitions in line with the sustainable development goals and to promote Europe's resilience, prosperity, competitiveness, and economic social well-being.

²¹ See *The AU-EU Innovation Agenda*, 19.07.2023, available at https://research-and-innovation.ec.europa.eu/system/files/2023-07/ec_rtd_au-eu-innovation-agenda-final-version.pdf.

Data gaps and technological challenges of vulnerable communities

However, gaps remain in understanding and measuring their impacts, particularly in areas that need to face ecological or technological challenges deriving either from their accelerated pace or the technical gaps these areas might still need to fill.²² Systematic assessment tools are needed to inform policymaking effectively, guiding future interventions for sustainable development.²³

2. Empowering vulnerable communities through sustainable finance, sustainable governance, sustainable local development

Cohesion policy, urban sustainable development, and innovation policies

While a comprehensive definition of how sustainable innovation could be legally accelerated and safeguarded might still be fuzzy, the Commission effort to develop the social and governance impact aspects of sustainable innovation policy is undoubtedly clear.

The effort is even more evident especially if connected to the recognition and role of the vulnerable or affected communities if one turns the look towards the EU Commission initiatives on sustainable finance and sustainable corporate governance, on one side, and sustainable local development on the other side. In the next two sections an explanation of how these regulations and policies might be connected and become relevant for vulnerable communities is provided. While historically environmental concerns have been paramount, they show that there is a growing recognition of the need to include social and governance dimensions.

Browsing European law to tackle environmental concerns

This shift is evident in key EU primary law such as the Corporate Sustainability Reporting Directive (CSRD), Sustainable Finance Disclosure Regulation (SFDR), and the EU Taxonomy Regulation, and the policy and regulatory landscape on urban / territorial development through the Cohesion Policy.

EU taxonomy as a way forward

2.1. On engagement as a future for sustainable governance and finance

The CSRD mandates sustainability reporting for a significant number of EU companies, requiring disclosure of both environmental and social impacts. This Double Materiality approach ensures comprehensive insights into a company's sustainability performance, including its effects on

²² See the the European Commission and the High Representative adopted a joint communication to the European Parliament and the Council on a Renewed Partnership with the Southern Neighbourhood, 9 February 2021, JOIN(2021) 2 final. On 19 April 2021, the Council endorsed the renewed partnership, which aims to 'address common challenges' and 'unlock the region's economic potential for the benefit of its people'.

²³ See R. AROCENA, J. SUITS, Universities and Social Innovation for Global Sustainable Development as seen from the South, in *Technological Forecasting and Social Change*, 2021, 162, 120399; E. RAVAZZOLI, Can Social Innovation Make a Change in European and Mediterranean Marginalized Areas? Social Innovation Impact Assessment in Agriculture, Fisheries, Forestry, and Rural Development, in *Sustainability*, 2021, 13, 1823.

vulnerable communities. Similarly, the SFDR enhances transparency in sustainable investments by necessitating disclosure of Environmental, Social & Governance (ESG) activities by Financial Market Participants (FMPs) and Financial Advisors (FAs). Categorizing investment funds based on their environmental objectives empowers investors to make informed decisions aligned with sustainability goals, thus safeguarding vulnerable communities from deceptive practices. Moreover, the EU Taxonomy serves as a framework for identifying environmentally sustainable economic activities, guiding companies, and financial institutions in making green investment decisions. By aligning investments with Taxonomy-aligned activities, both the environment and vulnerable communities stand to benefit, fostering a more inclusive and sustainable economy.

More on the corporate/financial perspectives, the European Union's sustainable finance framework comprises several key components aimed at promoting transparency, accountability, and sustainability in economic activities. Initiated with the adoption of the Non-Financial Reporting Directive (NFRD) in 2014, the framework has evolved, incorporating the recent Corporate Sustainability Reporting Directive (CSRD) (EU) 2022/2464. The CSRD extends reporting obligations to a broad spectrum of companies, emphasizing sustainability and introducing the concept of "double materiality". Furthermore the all CSRD considers as one of the main recipients of the informational obligation posed towards corporations the "affected communities", to which the European Sustainability Reporting Standard n. 6, according to which corporation under CSRD has: "to identify and manage any material actual and potential impacts on affected communities in relation to: (a) Impacts on communities' economic, social and cultural rights (adequate housing, adequate food, water and sanitation, land-related and security-related impacts); (b) Impacts on communities' civil and political rights (freedom of expression, freedom of assembly, impacts on human rights defenders); (c) Impacts on particular rights of Indigenous communities (free, prior and informed consent, self-determination, cultural rights)."²⁴ This evolution aligns with the global standards of the International Sustainability Standards Board (ISSB) and the Global Reporting Initiative (GRI). The European Sustainability Reporting Standards (ESRS) adopted under the CSRD provide a comprehensive framework for reporting on a range of ESG issues.

On the other hand, the Sustainable Finance Disclosure Regulation (SFDR) (EU) 2019/2088 enhances transparency in sustainable investments, requiring EU and non-EU financial operators to disclose their integration of environmental, social, and governance (ESG) factors. This regulation promotes accountability in investment decision-making and risk management, applying to operators offering services in the EU and all financial products sold within the region.

Regulatory categories vs. real-world problems

Reach regulatory alignment at various scales

²⁴ EFRA, European Sustainability Reporting Standards n.6 Affected Communities, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022L2464>.

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Circular Construction in Regenerative Cities (CIRCuiT)

was a collaborative project that ran from 2019-2023 and involved 31 ambitious partners across the built environment chain in Copenhagen, Hamburg, the Helsinki region and Greater London.

Funded by the European Commission's Horizon 2020 programme, the project supported the creation of regenerative cities by implementing sustainable and circular construction practices.

How did the public-private partnership contribute to more sustainable construction practices?

In the project, advantages of public-private collaboration were particularly evident in the following areas:

Urban Mining

The process of recovering and reusing raw materials that are already in the environment, in cities or in everyday products in the resource cycle. The potential of urban mining in the city can be utilised and implemented through the involvement of relevant partners from the construction industry and cooperation between public and private stakeholders.

Pre-Demolition Audits (PDAs)

PDAs are crucial to drive recycling and reuse in construction, but to realise the potential of

PDAs, collaboration between the different stakeholders in the construction industry was key: the aim was to optimise the EU directive on demolition preparation by leveraging the partnership between public and private partners in the project. The CIRCuiT PDA was developed with the involvement of all stakeholders in the industry and the entire life cycle of buildings.

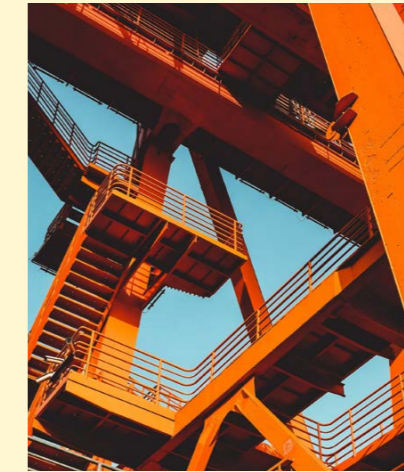
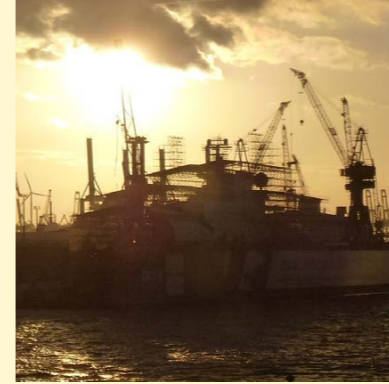
The CIRCuiT PDA was developed through dialogue, testing approaches, incorporating the experience of private partners, taking into account public requirements and supported by the knowledge of scientific stakeholders.

Instead of calling it a 'Pre-Demolition Audit', it should rather be called an '*Urban Mining Audit*' or '*Circular Material Audit*' to emphasise the sustainability potential of the tool

A PDA is a comprehensive and systematic assessment of the quantity and quality of elements and materials that remain after the demolition of a building. It can be used as a tool to identify potentially reusable and recyclable components. When completed long before demolition, this information can be fed into a digital platform where professionals can see what materials will be available for future designs.

Some learnings:

- To realise the full benefits of PDA completion, the data must be accessible to the entire industry: Together they form a database of construction elements that will soon be available.
- Integrate the PDA into public tenders: Carry out the first step of PDA, component and material assessment, prior to tendering and use this to create a detailed specification. The demolition contractor then responds with the second step of the PDA: management options as part of the tender. The contract makes the process legally binding.
- The pre-demolition audit should be a process that involves stakeholders across the construction value chain to maximise recycling and reuse. In particular, the demolition contractor of the existing building and the architect/developer of the new building should go through the existing building together to discuss and agree reusable/recyclable items.
- A pre-demolition audit should be required before a demolition permit is issued or a new building is approved, setting out how waste will be minimised. The requirement for this step means that all projects must consider what to do with the buildings on the existing site.



- Publicise information on pre-demolition audits – Pre-demolition audits are a great source of data on material flows at city level. When the detailed data is made publicly available, better predictions and smoother markets for secondary reuse are possible.
- Public and private facility owners can reduce costs and carbon emissions by adopting PDAs proactively or in early project phases. By knowing the materials available for reuse and creating a pipeline for potential reuse, the replacement of materials within the asset portfolio becomes more likely. Financially, the early implementation of PDAs can be a cost-effective solution. One demonstration project showed a 12% reduction in construction costs by using recycled aggregates on site. While PDAs are becoming more widely recognised in the industry, some secondary material supply chains do not yet have the financial capacity to implement them comprehensively and strategically. Policy recommendations suggest making PDAs mandatory for all projects, upscaling PDAs to reduce the costs of dismantling, processing and testing.
- In 2022/23, project partners from the Hamburg city cluster took part in a national consortium to develop DIN-SPEC 91484 in order to improve the recording of building components and their potential for later re-use.



Intermediate storage facility for circular building

Developing a concept for possible interim storage facilities for circular construction in collaboration with public and private partners to realise the full potential of tools such as the PDA and to find solutions for a more circular approach to the life cycle of urban buildings requires a city-wide network of private and public partners to realise such a facility.

The question of how a pre-demolition audit can be integrated into demolition and planning projects for urban buildings has highlighted a challenge in the demolition and recovery of building materials: the lack of suitable storage and treatment spaces.

Setting up temporary storage facilities for the reuse of materials from private or public demolition sites. Temporary storage facilities offer the CE advantage that the time window for testing, processing and marketing of components and bulk materials can be extended. This increases the likelihood that components can be reused or, if they do not pass quality control, recycled to a higher value than is currently the case. The establishment of an interim storage centre for the reuse of construction products and parts will create a local market for reused construction products with the involvement of the public sector. The interim storage centre can market construction products and parts as non-waste and thus create a more circular economy.

Typologies for financial products for sustainability

The SFDR regulation identifies three typologies of financial products differentiating them based on their disclosure and sustainability quality levels: (a) products that do not show any sustainable focus (Article 6), (b) products promoting an environmental or social investment strategy (Article 8), (c) products with a sustainable investment objective (Article 9).²⁵

Article 2 no 17 defines "sustainable investment" as "an investment in an economic activity that contributes to an environmental objective, as measured, for example, by key resource efficiency indicators on the use of energy, renewable energy, raw materials, water and land, on the production of waste, and greenhouse gas emissions, or on its impact on biodiversity and the circular economy, or an investment in an economic activity that contributes to a social objective, in particular an investment that contributes to tackling inequality or that fosters social cohesion, social integration and labour relations, or an investment in human capital or economically or socially disadvantaged communities, provided that such investments do not significantly harm any of those objectives and that the investee companies follow good governance practices, in particular with respect to sound management structures, employee relations, remuneration of staff and tax compliance".

Scheitza and Busch²⁶ found that of the 1,138 classified under Article 9 as of August 2022, by January 2023, 278 funds changed their status: 273 to Article 8 and 5 to Article 6. They categorize fund strategies into Basic ESG, Advanced ESG, Impact-aligned, and Impact-generating investments based on five criteria (objective, negative screening, positive screening, post-investment, and performance measurement).

A path for integral sustainable investment

According to Scheitza and Busch, the first two types of ESG-related investments "consider sustainability aspects mainly from a financial materiality point of view. Basic ESG investments use exclusions and norms-based screening to mitigate risks, such as excluding fossil fuels or human rights violations. Performance measurement centers on financially material ESG risks. Advanced ESG investments emphasize ESG opportunities, apply stricter positive screenings, and employ post-investment strategies, e.g., engagement or voting activities".

The impact-related investments take instead into consideration a companies' positive impact on the environment and society.

Positive screenings and post-investment strategies

Impact-aligned investments include companies with impacts that align with internationally accepted frameworks, such as the Sustainable Development Goals (SDGs) or the Paris Agreement. Indeed they "try to focus more directly on contributing to the SDGs or other environmental and social issues. They aim to identify impactful companies that, for example, derive revenues from

²⁵ O. LYSAK, C. HOUSTON, R. JUWADI, EU SFDR - What's Happening in the Market?, in *Investment Lawyer*, 2021, 28(12), 17-20.

²⁶ L. Scheitza, T. Busch, SfdR Article 9: Is It All About Impact?, in *Finance Research Letters*, 62 (2024) 105179.

²⁷ Id.

²⁸ Id.

The diversity of social ecological impact-alignment

products and services that reduce global emissions or improve resource efficiency. In terms of performance measurement, these funds capture the impact of investee companies, often using carbon metrics but also considering the proportion of female board members or waste production."²⁷ Impact-generating investments go one step further. They enable companies to directly address environmental or social challenges, using capital allocation or engagement and voting as mechanisms to encourage improvements in company impacts. According to Scheitza and Busch "impact-generating strategies are mainly built on engagement activities (e.g., by steering entities toward positive impact, triggering positive change, or driving better integration of sustainability). Funds that aim to achieve impact through capital allocation are primarily involved in the microfinance sector. These funds provide direct financing for sustainable solutions, such as micro-enterprises and farms in developing countries."²⁸

The research results of Scheitza and Busch are that:

- 60% of the funds that maintained their SFDR statuses were classified as impact-related investments, while only 40% were classified as ESG-related investments.
- *Advanced ESG funds (32%) are primarily characterized by a desire to capitalize on ESG trends*
- *The largest percentage of funds meets the criteria of impact-aligned (40%) investments*
- *Among Article 9 funds, the share of impact-generating investments is comparably low. While 72% of all Article 9 funds state impact-generating objectives in product documents (e.g., enable the transition to a sustainable low carbon economy or contribute to sustainable practices), only 20% of these funds can demonstrate how the investment strategy may have an attributable impact on environmental or social aspects.*

Lastly, regulation 2023/2631/EU on European Green Bonds (EUGBs) aligns with the EU Taxonomy, aiming to channel bond proceeds into projects meeting environmental and sustainability criteria. The regulation sets stringent requirements for issuers, emphasizing external verification and contributing to the EU's efforts to combat greenwashing. Furthermore, the EU Taxonomy, addressed in Regulation 2020/852, is a key measure within the European Green Deal, steering investments towards projects and initiatives that positively contribute to sustainable development.²⁹

Research insights on impact investment strategies

Taxonomy and bonds meeting ESG criteria

²⁹ In brief, the EU Taxonomy is a "green" classification system designed to translate environmental and climate transition objectives into specific criteria for economic activities and investments. It identifies six key environmental objectives: i) mitigation of climate change, ii) adaptation to climate change, iii) sustainable use of water and marine resources, iv) transition to a circular economy, v) prevention and control of pollution, vi) protection and restoration of biodiversity and ecosystems; M. OCH, Sustainable Finance and the EU Taxonomy Regulation – Hype or Hope?, Jan Ronse Institute for Company & Financial Law Working Paper, n. 5/2020; 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. PACCES, Will the EU Taxonomy Regulation Foster a Sustainable Corporate Governance?, EGCI Law Working Paper, n. 611/2021; A. GIACOMELLI, EU Sustainability Taxonomy for non-financial undertakings: summaryreporting criteria and extension to SMEs, Working Papers Department of Economics Ca' Foscari University of Venice, n. 29/2021.

The regulation was immediately equipped with a green taxonomy but not with social taxonomy.

The European Commission technical expert group on sustainable finance presented the first draft of a social taxonomy in July 2021, and the second version was expected by the end of 2021. The report was finally released in February 2022 and was supposed to promote sustainable investment in Europe, putting the focus on the protection of human rights and on the social impact on the main stakeholder groups of businesses: workers, end-users/ customers, and affected communities.

According to the report, inclusive and sustainable communities and societies is one of the possible objectives. As possible sub-objectives there is *promoting equality and inclusive growth*, but also *supporting sustainable livelihoods and land rights and ensuring the respect for the human rights of affected communities by carrying out risk based due diligence*.

It is suggested to achieve the second sub-objective by among other things *"promoting community-driven development where decision-making processes are decentralised to the community level"* and *"carrying out meaningful consultations with affected communities, including on development priorities where relevant. [...] to ensure continuous engagement and good-faith negotiation with indigenous peoples to obtain their free, prior and informed consent before undertaking any activities that may affect them"*.

It also clarifies that *"Implementing the 'free, prior and informed consent' process when indigenous people's groups are affected. Supporting freedom of assembly and expression including the protection of human-rights defenders and civic space by: wherever appropriate, taking action and engaging in collective advocacy, dialogue with states, and multi-stakeholder coalitions on issues relating to human-rights defenders and restrictions on civic freedoms and the rule of law; ensuring that indigenous and customary land rights are upheld when acquiring or using land, including by redesigning business plans or activities to avoid impacts on indigenous or customary land"*.

The EU social taxonomy has been shelved indefinitely due to difficulties in agreeing on a conceptual framework and measurement system that would work at both the EU and global level.

This evolving regulatory framework on sustainable finance not only emphasizes the commitment to sustainability, transparency and responsible corporate behavior but also recognizes the importance of protecting and supporting vulnerable communities. By ensuring a harmonized and effective system to promote sustainable financial practices, the aim is to provide balanced resources and opportunities, especially for those who might be more exposed to the negative impacts of environmental and social challenges.

The commitment to ethical, inclusive, transparent, and sustainable innovation, aimed at promoting societal well-being, constitutes the cornerstone of the objectives of the new sustainable finance. These objectives include

Inclusive and sustainable communities and societies bridging social and ecological impact

Difficulties in the social taxonomy

providing equal opportunities for participation to all within society, ensuring transparency, ethics, and a positive social impact, as well as safeguarding the economic, environmental, and social sustainability of every innovation.

2.2 On sustainable local development and the partnership principle as the true source for engagement

The EU tries to deliver territorial justice through the EU Cohesion Policy. It is foreseen in Article 174 of the TFEU, and it assumes a crucial role in promoting economic, social, and territorial cohesion within the Union. By addressing regional disparities and providing support to vulnerable regions grappling with environmental challenges, cohesion policy contributes significantly to climate and technological justice. This policy framework places a premium on addressing the needs of regions facing economic, social, and environmental adversities, thereby fostering inclusive and equitable development across the Union.

In essence, the discussion around vulnerable communities' engagement as a defining feature of a sustainable and just innovation aimed at delivering climate, intergenerational, technological, energy, and territorial justice may serve as the bedrock of EU policymaking, guiding the Union's endeavors towards a more just ecological, energy, and technological transition. Through a steadfast commitment to interpret and implement these principles in a focused and oriented manner, the EU can effectively confront environmental and technological challenges, mitigate the impacts of the ecological and technological transitions, and ensure equitable access to the necessary innovative solutions and technological advancements for all member states and their citizens.³⁰ By embracing a comprehensive approach that integrates environmental, social, and economic considerations, the EU can continue to lead by example in addressing global challenges and fostering inclusive and sustainable development for present and future generations.

Additionally, the EU's cohesion policy plays a crucial role in reducing disparities among regions by investing in disadvantaged areas, promoting social inclusion, and alleviating poverty. By addressing social and economic vulnerabilities, cohesion policy contributes significantly to creating a more sustainable and equitable society.

Articles 8 'Multi-level partnership and governance' and 31 'Participatory Local Development'³¹ of the Common Provisions Regulation (CPR)³² represents

30 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*, in *Law & Ethics of Human Rights*, 2019, 13, 2, 263-299.

31 In paragraph 2, letter b, "be led by local action groups composed of representatives of public and private socio-economic interests, in which no single interest group controls the decision-making process."

32 Regulation (EU) 2021/1060 of the European Parliament and of the Council of 24 June 2021 laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, the Just Transition Fund, the European Maritime and Fisheries Fund and the Fund for Aquaculture and financial rules for those funds and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for financial support for border management and visa policy.

Vulnerable communities' engagement and justice

Difference between regions should be acknowledged

Searching for bridges between green and social taxonomy

the new dimensions of sustainability in the best possible way, striving to include and protect vulnerable communities, but primarily through these partnerships, as clarified by Article 8, which outlines the function of the partnership agreement for European Union programs. It stipulates that each member state shall organize and implement a comprehensive partnership, considering its institutional and legal framework, involving various entities such as public authorities at various levels, economic and social stakeholders, civil society organizations, and academic institutions. This partnership adheres to the principle of multi-level governance and involves partners in all stages of the programs. Member states may allocate a percentage of resources to partners for the development of administrative capacities. In Interreg programs, the partnership includes partners from all participating member states. They represent a useful and convenient means to facilitate the use of European funds in promoting and implementing economically sustainable and advantageous solutions, and therefore should constitute the focus and main tool for operating in disadvantaged contexts and beyond.

New European Bauhaus

Within the same framework, the New European Bauhaus territorial development model (NEB TDM) financial instrument³³ – that will be deeper explored in the next paragraph – holds considerable importance as it aims to ensure professional and financial support for sustainable investments for individuals, communities, and businesses. Furthermore, the European Regional Development Fund (ERDF)³⁴ emerges as another useful tool to support investments in European regions, with the potential to be directed towards initiatives addressing the specific needs and challenges of vulnerable communities, including projects focused on education, employment, social services, housing, and other essential resources. Lastly, the New European Bauhaus (NEB) initiative, seeks to redefine living spaces in a manner that harmonizes with the planet's needs while fostering inclusivity and aesthetic quality.

Holistic approach to urban development

At the heart of the NEB initiative lies the Territorial Development Model (TDM), which emphasizes a holistic approach to urban development. It integrates innovative, sustainable, and inclusive design principles into urban policies and projects, aiming to create spaces that are environmentally friendly, socially inclusive, and aesthetically pleasing. As already mentioned, the NEB TDM introduces a model financial instrument (FI) to support NEB projects in Member States. This FI aims to provide managing authorities with the necessary building blocks to implement financial support mechanisms that foster innovation, energy efficiency and social integration. Unlike traditional approaches, the NEB TDM places a strong emphasis on being

³³ New European Bauhaus territorial development model (NEB TDM) financial instrument, available at the website: https://ec.europa.eu/regional_policy/en/information/publications/communications/2022/new-european-bauhaus-territorial-development-model-neb-tdm-financial-instrument

³⁴ Programs of the ERDF are available on the website https://ec.europa.eu/regional_policy/funding/erdf_en

people-centered, participatory, and aligned with ambitious climate objectives. By incorporating a grant component, the FI ensures that even the most ambitious sustainability goals are within reach, particularly for vulnerable communities.

Within the different but connected framework of the research and innovation agenda for cities, the role of communities in the governance of the technological and ecological transition is also central in the Horizon Europe Cities Mission delivery mechanism, the so-called city contract. In essence the city contract must be considered a community-based investment plan and partnership for the ecological and digital transitions of the city.³⁵ For example, the city of Rome centered its strategy on the creation of energy communities.³⁶

3. The need and role of USDIP's and CSO's in building sustainable local innovation ecosystems for vulnerable communities

If engagement is the true source of sustainable governance and finance which is the way just innovation can be delivered, the question of how to enable this engagement remain unanswered.

A concrete instrument that has demonstrated its viability as a tool capable of including the vulnerable communities into the sustainable innovation process are the Urban Sustainable Development and Innovation Partnerships (USDIPs).³⁷ USDIPs is an innovative partnership tool in the realization of innovations oriented towards sustainable development (so-called 'mission-oriented' innovations). USDIPs represent an innovative approach to fostering collaboration among diverse urban stakeholders. These partnerships transcend traditional public-private partnerships, aiming to unite stakeholders around projects promoting just and sustainable innovation at the city level. USDIPs represent a legal category that can shape and formalize this new governance and legal arrangements pushing for a more equitable cooperation between local communities, public authorities, civil society, local businesses, and knowledge institutions.³⁸

Hereby some relevant case studies extracted from the UIA initiative through which several European cities can give an idea on how USDIPs operate and what results they can bring for communities:

³⁵ On the Cities Mission information available at <https://netzerocities.eu/mission-cities/>

³⁶ On the Rome Climate City Contract see https://www.comune.roma.it/web-resources/cms/documents/AdaptationStrategy_ENG.pdf

³⁷ On USDIPs, see C. IAIONE, Urban sustainable development and innovation partnerships, in Italian Journal of Public Law, 2022, 2.

³⁸ S. FOSTER, C. IAIONE, The City as a Commons, in Yale Law & Policy Review, 2016, 34, 281.

Innovation partnerships as a tool for sustainable development

- **Barcelona (Spain) - B-MINCOME:** Implements a guaranteed minimum income (GMI) combined with active social policies to empower vulnerable families and reduce urban poverty. The project emphasizes community engagement and experimental approaches to develop more efficient welfare services.
- **Birmingham (United Kingdom) - USE-IT!:** Focuses on integrating migrants into the workforce through social enterprises, providing training and job opportunities within the healthcare sector. Strong cooperation between local government, health services, and community organizations drives the project's success.
- **Lille (France) - TAST'in FIVES:** Aims to counteract poverty in a low-income neighborhood by creating a collective kitchen as a space for training, job opportunities, and socialization around shared meals. Challenges include reaching socially excluded populations and designing effective governance models.
- **Nantes (France) - 5Bridges:** Utilizes urban design strategies to address homelessness, promoting high-quality housing and social integration. The project emphasizes collaboration between different social groups and the active involvement of refugees and local communities.
- **Gothenburg (Sweden) - FED:** Focuses on reducing carbon consumption through district-level energy systems and fostering collaboration between public and private stakeholders. The project aims to create sustainable markets and improve energy efficiency while benefiting vulnerable communities.
- **Maribor (Slovenia) - URBAN SOIL 4 FOOD:** Implements a circular economy model to transform municipal waste into urban soil for community gardens, promoting local food production and reducing environmental footprint. The project emphasizes collaboration between public and private sectors to optimize resource use and enhance sustainability.
- **Vienna (Austria) - CoRE:** Establishes a physical and digital platform for cross-sector cooperation and peer mentoring to integrate asylum seekers. The project emphasizes empowerment and collaboration between refugees, public institutions, NGOs, and civil society initiatives.
- **Athens (Greece) - Curing the Limbo:** Develops affordable housing solutions and collaborative arrangements to improve the employability of refugees. Through a circular housing exchange system and community-led activities, the project aims to facilitate social integration and mutual benefit between refugees and local communities. vulnerable communities play a crucial role in the sustainable innovation transition.³⁹

³⁹ On USDIPs see C. IAIONE, Urban sustainable development and innovation partnerships, in Italian journal of public law, 2/2022, pp. 605.

USDIPs are also used by global and European development and financial institutions like the EIB. Two inspiring examples through which the EIB has facilitated the leading role that urban communities can take in the sustainable finance and sustainable governance of the ecological and technological transition are emerging from the "Multi-Region Assistance Project – Revolving Investment for Cities in Europe" (MRA-RICE) which has provided advisory services to the cities of London, Manchester, Milan and The Hague,⁴⁰ and the case study of the Financial Instruments for Urban Development in Portugal (IFRRU 2020, Instrumento Financeiro para a Reabilitação e Revitalização Urbanas), a financial instrument that has been established to support urban renewal across the entire Portuguese territory. Also, the EIB has taken initiatives to promote the use of social outcome contracting (SOC) options for urban vulnerable communities projects, an innovative form of procuring services based on outcomes, whose main feature is that improved social and health outcomes lead to a financial return for the involved parties and the saving of public finances.⁴¹

These case studies demonstrate the diverse ways in which vulnerable communities are engaged in innovative projects aimed at addressing urban challenges. By prioritizing inclusivity, experimentation, and engagement, stakeholders can harness the collective wisdom and creativity of vulnerable communities to co-create solutions that meet their specific needs. Ultimately, ensuring that vulnerable communities are active participants in the sustainable innovation transition is essential for building more just, resilient, and sustainable societies for all. To ensure communities become true partners and co-owners of these sustainable processes: I) capacity building processes, II) physical infrastructure III) institutional infrastructure are essential.

- I** Capacity building processes involve enhancing the skills and resources of local communities, enabling active participation in planning, management, and implementation of sustainable development initiatives;
- II** Physical infrastructure includes constructing research and innovation brokerage centers like the House of Emerging Technologies in Rome, but also community centers, co-working spaces, science parks, living labs and incubators in vulnerable neighborhood or areas that facilitate collaboration and resource sharing among local innovation ecosystem community members;

⁴⁰ See the report available at <https://www.fi-compass.eu/sites/default/files/publications/MRA-RICE%20indepth%20case%20study%20The%20Hague.pdf> according to which "The main objective of the project was to identify common technical and financing needs across cities, and the extent to which a multi-region financial instrument that provides standardised solutions and delivery models could be a viable solution to provide financing and technical support to cities' urban development projects. As part of the MRA-RICE project, The Hague has been the lead partner in developing a blueprint for future financial instruments for cities. Following delivery of the Phase 2 Report for the project, The Hague has been considering the application of the MRA RICE Blueprint to its Energy Transition".

⁴¹ See the Civic eState URBACT project final report available at <http://www.civicestate.eu/wp-content/uploads/2021/11/Final-product-CIVIC-eSTATE-new-models-of-urban-co-governance-based-on-the-commons-1.pdf>

III Institutional infrastructure entails establishing local governance bodies and promoting partnerships between public entities, civil society organizations, businesses, and other stakeholders. These new physical spaces and institutions are required to facilitate the creation and smooth management of local ecosystems for sustainable innovation, supporting fair and sustainable development while addressing environmental and societal challenges.

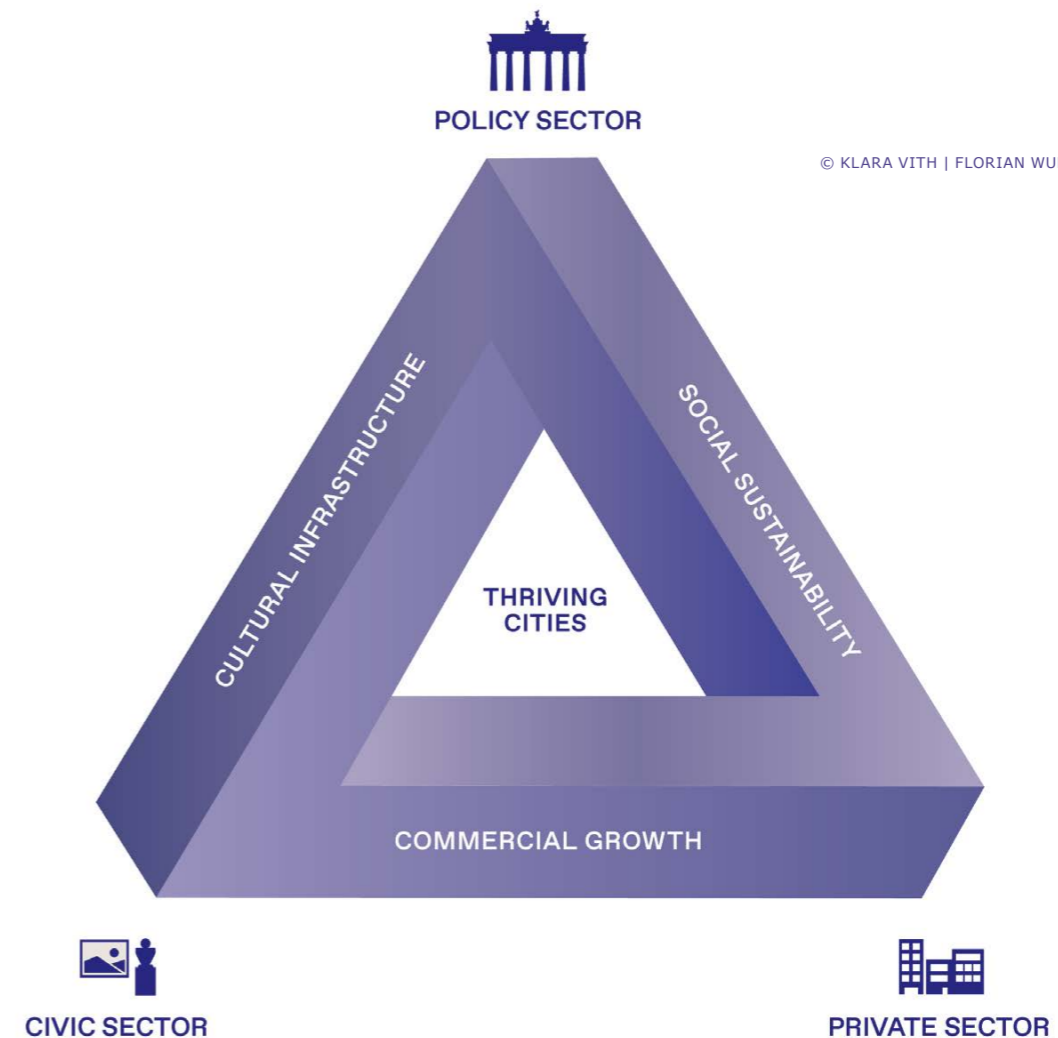
Chief Sciences Officers (CSOs) as catalysts for resources and knowledge

In this framework, the City Science Offices (CSOs) can play a crucial role. With their role in facilitating collaboration and catalyzing resources and knowledge, the CSO is instrumental in engaging communities in data collection, issue identification, and co-creation of solutions. This active participation fosters greater awareness, understanding, and action on sustainability and environmental justice at the local level.⁴² Operating as a nexus between urban needs, environmental challenges, and innovative solutions, the CSO plays a crucial role in combating climate change. By fostering collaboration and knowledge exchange among cities, academic institutions, the private sector, and civil society organizations, it orchestrates resources and expertise to effectively address climate challenges. Moreover, the CSO actively promotes innovation and sustainable development within cities by collaborating with local stakeholders to implement solutions that reduce greenhouse gas emissions, enhance energy efficiency, encourage sustainable mobility, and safeguard natural resources.

Another integral aspect of the CSO's role is its dedication to fostering public participation and local action. Through awareness programs, education initiatives, and community engagement efforts, the CSO raises awareness about climate issues and encourages concrete actions at both individual and collective levels. This drives the adoption of sustainable practices in daily life and urban planning.⁴³

One of the CSOs working on sustainable innovation was established in 2019 in Italy under the auspices of the City Science Initiative hosted by the Joint Research Centre (JRC) of the European Commission with the aim of strengthening the contribution of science and research in addressing

⁴² B.J. STRASSER, J. BAUDRY, D. MAHR, G.SANCHEZ, E. TANCOIGNE, Citizen science? Rethinking science and public participation, in *Sci. Technol. Stud.*, 2019, 32, 52–76; H. SAUERMANN, K VOHLAND, V. ANTONIOU, B. BALÁZS, C. GÖBEL, K. KARATZAS, P. MOONEY, J. PERELLÓ, M. PONTI, R. SAMSON, Citizen science and sustainability transitions, in *Res. Policy*, 2020, 49, 103978; B.B. ARNOLD, Environmental Sousveillance, Citizen Science and Smart Grids, in *Intellectual Property and Clean Energy: The Paris Agreement and Climate Justice*, Springer, Singapore, 2018, pp. 375–398; J. CHILVERS, H. PALLET, T. HARGREAVES, Ecologies of participation in socio-technical change: The case of energy system transitions, in *Energy Res. Soc. Sci.*, 2018, 42, 199–210; J. HICKS, N. ISON, An exploration of the boundaries of 'community' in community renewable energy projects: Navigating between motivations and context, in *Energy Policy*, 2018, 113, 523–534, L. JOSEPHSEN, Approaches to the Implementation of the Sustainable Development Goals—Some Considerations on the Theoretical Underpinnings of the 2030 Agenda, in *Economics Discussion Papers*, No. 2017-60; Kiel Institute for the World Economy (IfW): Kiel, Germany, 2017; P. MUÑOZ, F. JANSSEN, K. NICOLOPOULOU, K. HOCKERTS, Advancing sustainable entrepreneurship through substantive research. *International Journal of Entrepreneurial Behavior & Research*, 2018, 24(2), 322–332. T. HENFREY, J. KENRICK, Climate, Commons and Hope: the Transition movement in global perspective, in T. HENFREY, G. MASCHKOWSKI & G. PENHA-LOPES (Eds.), *Resilience, Community Action and Societal Transformation*, available at http://www.transitionresearchnetwork.org/uploads/1/2/7/3/12737251/3.2_transition_and_resilience.pdf



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urban challenges, reducing or bridging the gap between science and policy. Located in Reggio Emilia, at the *Chiostrì di San Pietro*, and modeled on the pioneering experience of Amsterdam, this collaborative laboratory involves the city, the university, the administration, and associations in the search for experimental sustainable innovation solutions that can then be integrated into public policies.

In Amsterdam, Hamburg, Tessaaloniki and Reggio Emilia, the City Science Office plays a fundamental role in enhancing the capacities of urban communities. This means actively engaging in promoting the development of skills and resources within cities to tackle complex challenges such as climate change, environmental and social sustainability, and other critical urban issues. To achieve this, the City Science Office implements strategies

Enhance knowledge and exchange capacities through CSOs

⁴³ On this see: City Science for Urban Challenges, 2020, available at <https://openresearch.amsterdam/nl/page/63027/2020-city-science-for-urban-challenges>, and Urban Regional Research Ecology, 2022, available at <https://openresearch.amsterdam/en/page/85094/full-publication-urban-regional-research-ecology> on the importance, opportunities and challenges to formal collaboration between local and regional authorities and knowledge institutions in 2022 and beyond. Building on the studies carried out regarding the role of cities in shaping the collaboration with knowledge institutions and other stakeholders - as other branch on of government and citizens - to develop research that can enable the enactment of better equipped policies, now the focus should be shifted on universities in order to see in which ways these fundamental cultural actors can play a crucial role in the design of the future of cities and regions.

and training programs designed to enhance the capabilities of community members, public officials, local entrepreneurs, and other stakeholders. These programs may include workshops, training courses, awareness sessions, and other initiatives aimed at providing practical knowledge, technical skills, and tools necessary to address urban challenges effectively and sustainably. Additionally, the City Science Office facilitates the exchange of knowledge and best practices among cities, creating networks of collaboration and partnerships that allow communities to learn from each other and adapt previously tested solutions to the local context. This capacity-building process contributes to creating more resilient communities capable of adapting to changes and thriving in an increasingly complex and dynamic urban environment.

In conclusion, fostering sustainable local innovation ecosystems is vital for promoting enduring development in vulnerable communities. These ecosystems, characterized by tailored solutions and collaborative networks, empower communities to effectively address challenges, enhancing their resilience and well-being. To ensure communities become true partners in sustainable processes, capacity building, physical infrastructure, and institutional development are essential components.

The role of City Science Offices (CSOs) is paramount in this endeavor. By facilitating collaboration and knowledge exchange, CSOs play a crucial role in engaging communities, addressing climate challenges, and promoting innovation and sustainable development within cities. Through awareness programs and community engagement efforts, CSOs foster public participation and local action, driving the adoption of sustainable practices.

Establishing CSOs, such as the ones in Amsterdam, Hamburg, Thessaloniki, Reggio Emilia, represents a significant step towards enhancing the capacities of urban communities. By implementing strategies and training programs, CSOs empower community members, public officials, and local entrepreneurs to effectively address urban challenges. Furthermore, CSOs facilitate the exchange of knowledge and best practices among cities, contributing to the creation of more resilient communities capable of thriving in an increasingly complex urban environment.

In essence, the role of CSOs extends beyond mere coordination; they serve as catalysts for sustainable development, promoting collaboration, innovation, and community engagement. As we continue to confront the challenges of climate change and urban sustainability, CSOs stand as vital allies in building resilient and sustainable communities for the future. Finally, USDIPs and CSOs can become the pillars of those sustainable innovation ecosystems the Horizon Europe talks about.

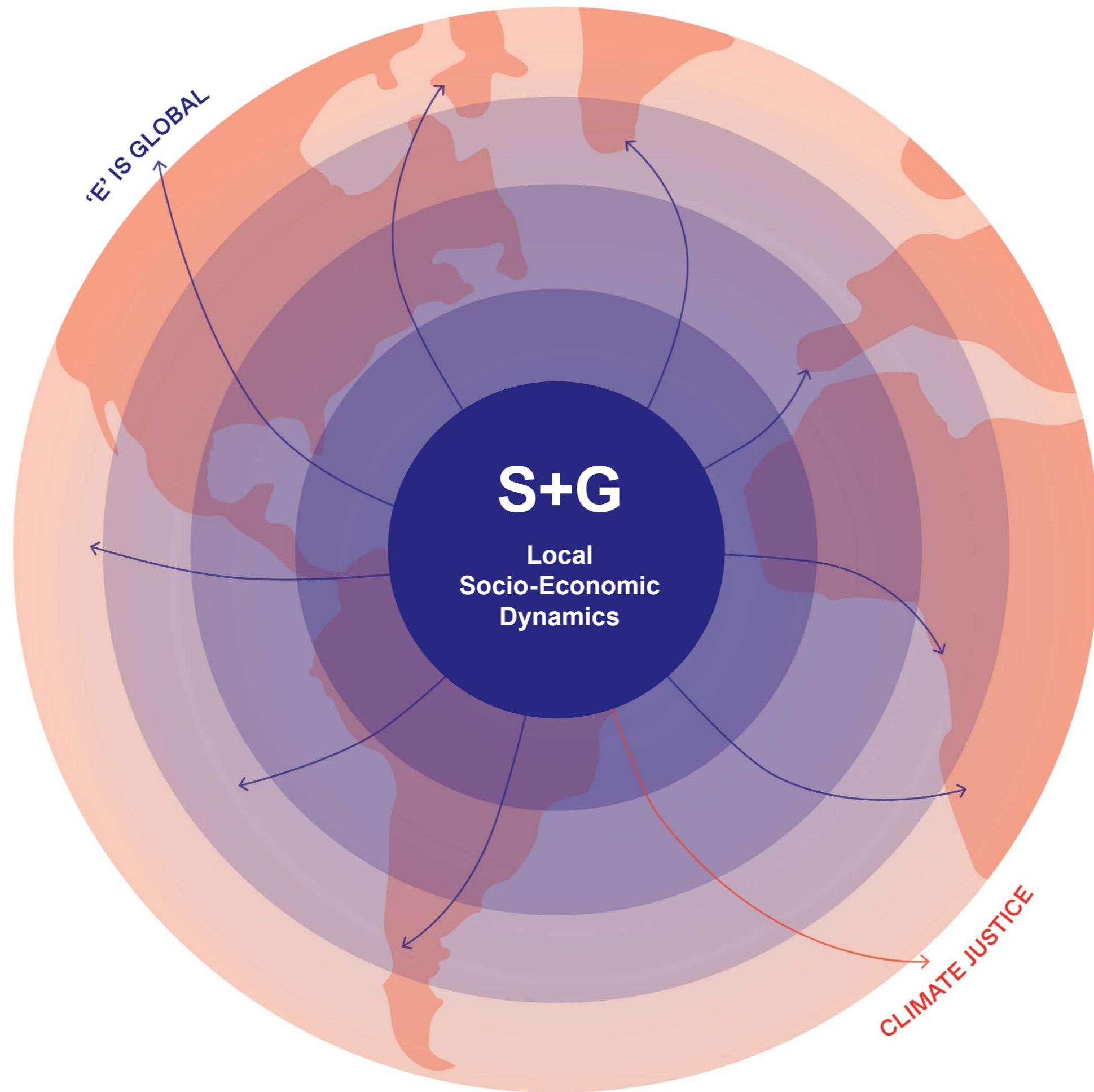
The vital importance
of CSOs

Fostering local sustainable innovation ecosystems is essential for promoting enduring development in vulnerable communities. These ecosystems entail establishing processes and infrastructure to cultivate local capacities and generate tailored innovative solutions, facilitating access to education, technology, and finance, and encouraging collaboration and networking. This empowerment enables communities to effectively address challenges, enhancing resilience and well-being. Adaptability to evolving needs and resources is crucial for their sustainability, ensuring continual benefit to vulnerable communities.

The concept of 'local sustainable innovation ecosystems' has gained recognition, embodying conducive environments within specific regions where innovation flourishes sustainably. This involves nurturing diverse stakeholder networks to drive innovation, effectively leveraging local capabilities and resources through partnerships and collaborations, while prioritizing environmental, economic, and social sustainability. Supporting entrepreneurship is vital, providing resources such as funding, mentorship, and networking to transform innovative ideas into sustainable businesses, fostering economic growth and resilience. These ecosystems are dynamic and adaptable, requiring continual investment to maintain momentum and drive ongoing innovation.

In essence, local sustainable innovation ecosystems represent a holistic approach to fostering innovation while promoting sustainability across economic, social, and environmental dimensions, generating lasting positive impacts within communities by harnessing local strengths and collaboration.

Nurturing diverse
stakeholder networks
to drive innovation



Juan-Carlos Goilo
Innovation Amsterdam and Curaçao

Willemstad

Overview: In the heart of Willemstad, Curaçao, lies a vibrant urban landscape steeped in rich history and cultural heritage. However, this iconic city faces a myriad of challenges, from the pressures of mass tourism to unsustainable infrastructure, threatening its social and ecological fabric. In response, the government has embarked on a journey of urban renewal, aiming to connect the historic centre with modern development plans while preserving its authenticity and embedding ecological resilience.^I

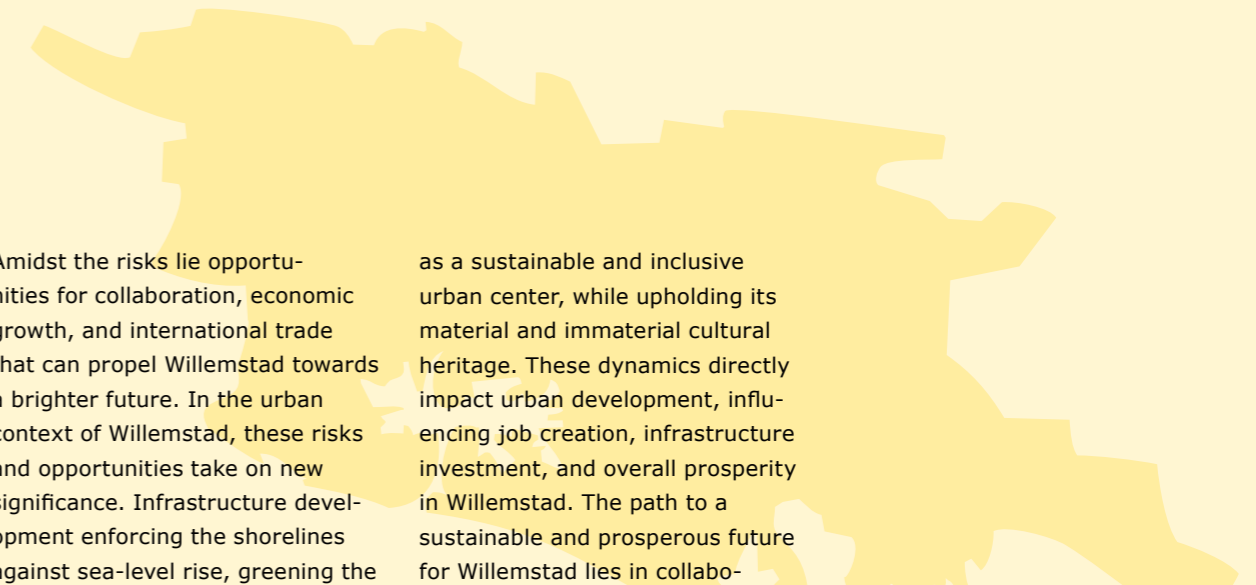
How should the negotiation of the future of the inner-city not become battle of the rich vs. the poor, the local vs. the global or the social vs. the ecological? The answer

lies in trust – trust forged through social impact investments and a robust social agenda that has been designed collectively. By embracing transparency and accountability, backed by data-driven decision-making and decentralized autonomous organizations (DAOs), Willemstad can reposition itself as a beacon of trust in the global financial markets.

How do public and private stakeholders contribute to this transformative journey?

By becoming a co-author in evidence-based investment and policymaking, aligning with leading other cities such as Amsterdam and Berlin committed to sustainable urban development stakeholders gain a great deal

of insights on how to deal with complex societal development issues. Together with other cities, the Willemstad stakeholders can harness the power of collective action to shape a more inclusive and resilient future. But as they embark on this journey, they must be mindful of the risks and opportunities ahead, as outlined by the Central Bank.^{II} Navigating global economic uncertainties, and addressing domestic challenges like climate change are paramount. The financial sector of Curaçao faces challenges, such as high unemployment rates and economic vulnerability, but joining international trade agreements and diversifying the service sector offer avenues for growth.

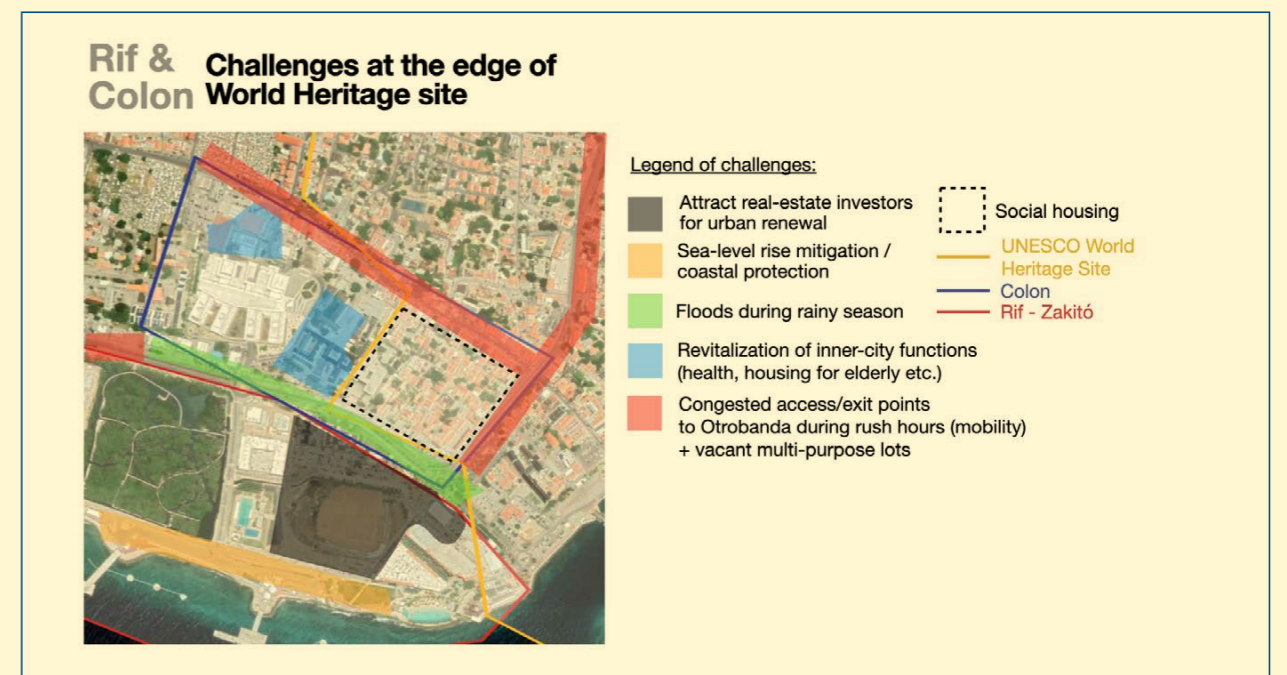


Amidst the risks lie opportunities for collaboration, economic growth, and international trade that can propel Willemstad towards a brighter future. In the urban context of Willemstad, these risks and opportunities take on new significance. Infrastructure development enforcing the shorelines against sea-level rise, greening the city against heat stress; building climate resilience and economic stability through knowledge sharing and through bottom-up development of SMEs; allocating financial resources through innovative public-private finance schemes are all intricately linked to the city's wellbeing. By proactively managing risks and seizing opportunities, we can ensure that Willemstad thrives

as a sustainable and inclusive urban center, while upholding its material and immaterial cultural heritage. These dynamics directly impact urban development, influencing job creation, infrastructure investment, and overall prosperity in Willemstad. The path to a sustainable and prosperous future for Willemstad lies in collaboration, innovation, and a shared commitment to social and environmental stewardship. By embracing trust, seizing opportunities, and navigating risks together, the public and private stakeholders of Curaçao can transform Willemstad into a model city for the world – one that balances economic prosperity with social and ecological wellbeing, preserving its heritage for generations to come.

^I Link to a new urban agenda of Curaçao Of 2019, which was developed by UNOPS in coöperation with the Ministry of Traffic, Transport and Urban Planning: <https://isocarp.org/news/unops-report-transforming-urban-curaçao-released/>

^{II} Link to News bulletin of December 2023 of the Central Bank of Curaçao and St. Martin: https://cdn.centralbank.cw/media/economic_bulletins_2023/20231213_economic_bulletin_december_2023.pdf, last visited 6th of March 2024.



Willemstad

Pilot project: The Willemstad case study focuses on the intersection between multiple urban areas (underdeveloped Rif area, the vacant Colon, Punda and Skalo area and the growing local community of artists and social centre of Otrobanda and Punda), where the local government is making Urban Renewal plans, connecting the area to social-ecological challenges (see figure 1). The area is currently undergoing baseline assessments for urban renewal (ROI of real estate investments, taxations etc.) and there is an expected to be an inner-city vision by the fall of 2024. The vision will intersect the historic centre, an inner-city bypass, a neighbourhood with social housing, and the health and hospital district

(also in development).^{III} The case study will use the intended **Urban Renewal Plans to co-create an USDIP** co-creation process to bring the urban development goals in relation to climate mitigation and adaptation, social impact and private interests. The complex composition of this area makes it a perfect case for testing a 'ESG Social Impact Compass.'

Collaboration: This case study will collaborate with the universities of applied sciences on the island: **The University of Curaçao Research Institute (UCRI)** providing support to research activities at the University of Curaçao and University of the Dutch Caribbean, local financial partners (banks and pension

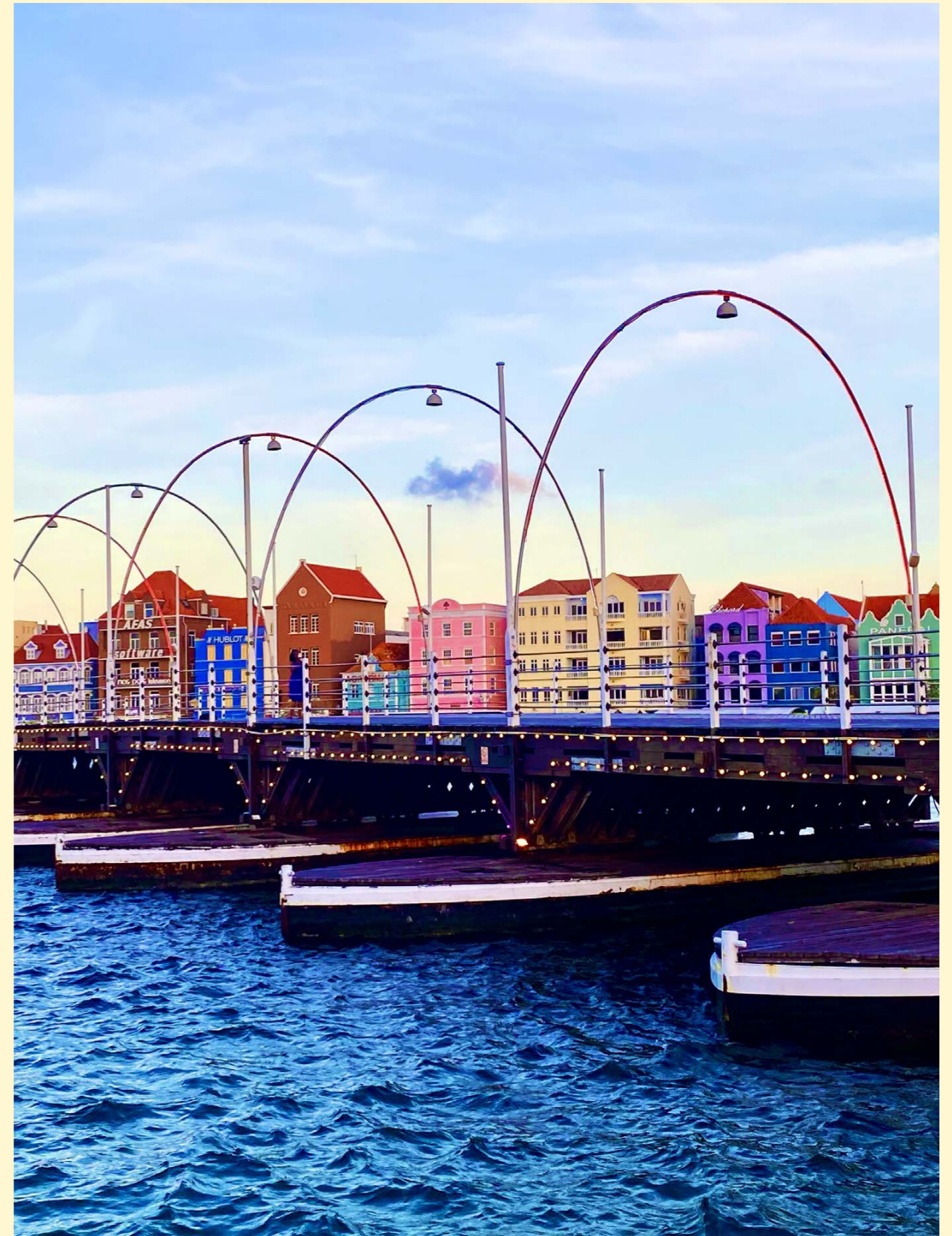
funds), local neighborhoods communities, and SMEs that provide professional corporate development that help identify potential contributions of private sector investors and SMEs in the Willemstad urban development and participate in organising the local workshops for USDIPs.

^{III} The vision is expected to be developed in 2025.

Punda, Scharloo Fleur de Marie World Heritage site



- Legend of challenges:
- Low-income household, prostitution and undivided estates, subjectively unsafe
 - Sea-level rise mitigation / coastal protection
 - Urban renewal Waterfort (APC)
 - Elderly, social housing, social isolation,
 - Overrepresentation of vacant multi-purpose lots



3 Students in 2050

Despoina Mantziari⁴⁴ | Stella Psarropoulou⁴⁵ | Panagiotis D. Bamidis^{46 47}

Universities drive sustainable innovation

In an era marked by rapid urbanization, environmental degradation, and the pressing need for sustainable development, the role of universities as drivers of innovation in European regional ecosystems has gained unprecedented significance. Building future-proof universities as drivers for fostering sustainable ecosystems and advocating for applying Environmental, Social, and Governance (ESG) frameworks in cities presents a compelling narrative for addressing contemporary socio-economic challenges within mid-sized regional and urban areas. The current chapter delves into the multifaceted dimensions of this discourse as it emerged through the lens of a generational perspective: university students and future researchers.

Universities drive transformative collaboration

The envisioned role of universities as catalysts for resilience and change is rooted in adopting a multidisciplinary challenge-based education approach and a multiple helix innovation model. By embracing this paradigm, universities transcend their traditional roles as mere academic learning environments to become dynamic hubs of collaboration, innovation, and societal transformation. Through active engagement with local and regional stakeholders, universities can facilitate the development of polycentric and networked innovation models, bridging the divide between urban and rural areas. This interconnected approach fosters knowledge exchange and enables the co-creation of solutions to complex socio-economic challenges, particularly sustainability and resilience.

Universities foster urban resilience

Central to this narrative is the concept of City Science, which embodies a novel approach to research and innovation characterized by its responsiveness to local dynamics and challenges. Universities can navigate the intricate interplay between policymaking, legal frameworks, social conditions, and economic innovation through partnerships with local administrators, aligning their research endeavours with the community's needs. This collaborative ethos underscores the transformative potential of universities as key stakeholders in shaping resilient and adaptive urban ecosystems.

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⁴⁵ Stella Psarropoulou – Resilient Office Thessaloniki (Deputy CRO), Dep. Of Operational Planning & Development Programmes monitoring, City of Thessaloniki / PhD Candidate.

⁴⁶ Prof. Panagiotis D. Bamidis – Director, Lab of Medical Physics & Digital Innovation, School of Medicine, Aristotle University of Thessaloniki / Founder Thessaloniki Action for Health & WellBeing Living Lab (Thess-AHALL) / CSI Mental Health, Lead City: Thessaloniki Coordinator.

⁴⁷ Contributors Amsterdam: Prof. Caroline Nevejan (CSO), Anna Jonkmans (team CSO), Naciye Karaalioglu (team CSO), Wendy Bos (team CSO) Contributors Reggio Emilia: Prof. Christian Iaione (CSO), Mario Manna – LUISS University / Reggio Emilia CSO).



Participants in the workshop in Reggio Emilia

Furthermore, the endeavour to build future-proof universities resonates strongly with the emerging need to apply ESG frameworks in cities in practice. Universities emerge as natural allies as cities grapple with balancing economic growth, environmental stewardship, and social equity. By leveraging their research capabilities, academic expertise, and collaborative networks, universities can inform evidence-based policymaking, drive technological innovation, and cultivate a culture of sustainability within urban ecosystems.

As we navigate an increasingly complex and interconnected world, the role of universities as agents of change has never been more critical. The 'Universities as Catalyst for Change' initiative emerged in 2023 as part of the 'City Science Initiative' (CSI) network, where it sought to implement its innovative approach by actively involving the next generation of researchers. By convening workshops in three European cities, leading actors of the CSI network, in Amsterdam (the Netherlands), Thessaloniki (Greece), and Reggio Emilia (Italy), the initiative has provided a platform for under- and

Academic hubs for sustainability advocates

postgraduate students to envision the future landscape of academia through imaginative/creative exercises and discussions. The synthesis of insights from these workshops has not only offered valuable perspectives on the aspirations and needs of the next generation of researchers but also underscores universities' crucial role in nurturing talent and driving innovation.

Methodology

To explore the concept of universities as drivers of social innovation and catalysts for urban resilience, the 'Universities as Catalyst for Change' initiative implemented a series of four (4) hands-on workshops, triggering the aspirations of undergraduate and postgraduate university students as the future researchers, and the concept of the future-proof universities within the changing urban environment. The workshops were held between March and December 2023 in Amsterdam, Thessaloniki (two workshops), and Reggio Emilia, with the primary objective of delving into the ideas, desires & concerns of the next generation of researchers.

The workshops aimed to address the following overarching questions:

- How do future researchers perceive themselves and their roles within the scientific community?
- What are their perspectives on the collaboration between academic institutions and urban entities, such as municipalities and/or regional authorities?
- What are the essential needs and requirements for future researchers to effectively contribute to addressing the various crises facing society?

The methodology adopted for the workshops was designed to encourage creative thinking, collaboration, and active participation among the participating students.



In Amsterdam, the workshop, held on March 7, 2023, began with an imaginative exercise where students were divided into groups and tasked with crafting fairytales about their research landscapes. The workshop was organized for 25 students in the research Master's programme 'Urban Studies' at the University of Amsterdam and hosted by the Chief Science Office team (City of Amsterdam). This exercise allowed participants to think beyond boundaries and tap into their creativity. Subsequently, students were prompted to connect these fictional narratives to real-world challenges through guided questions, leading to the identification of critical requirements and demands for future research endeavours. The 25 university students who participated in the workshop shared their perspectives on the prospective role of universities as drivers of innovation. They collaborated to generate smaller user stories in groups, culminating in a comprehensive narrative encompassing all the gathered insights.

The methodology from the City of Amsterdam workshop was replicated with minor adjustments to suit the local context in Thessaloniki. The two (2) workshop sessions in Thessaloniki were organized by the Lab of Medical Physics & Digital Innovation of the Aristotle University of Thessaloniki and the Thessaloniki Action for Health & Well-Being Living Lab, with the support of the Resilient Office of the City of Thessaloniki. The first workshop, held on March 30, 2023, was tailored to the participants of the university's own MSc on Biomedical Engineering programme as part of the 'Biomedical Engineering and Global (environmental) Challenges' course.

The second one was held on May 18, 2023, and implemented in the School of Medicine undergraduate course 'Medical Education' framework. These sessions spanned two hours each and engaged 20 students, providing 30 user stories. The workshops in Thessaloniki began with individual reflection as each student contemplated the questions posed. This was followed by interactive group discussions to explore further and exchange ideas.

All the workshops included an introduction to the principles of City Science and the vision for co-creating universities of the future with and for students. Moreover, they employed interactive techniques facilitated by using printing materials and post-it notes to engage participants actively. Group discussions followed short rounds of ideation to ensure that diverse perspectives were captured and discussed comprehensively.

The case was slightly different in Reggio Emilia, where the workshop took place later than the others, on December 15, 2023, at the Open Laboratory in the Cloisters of San Pietro, as part of the City Science Office of Reggio



Emilia event entitled 'The Tools of Urban and Climate Justice in Reggio Emilia: New models of public-private-community relations, impact measurement, and science for the city'. More than 25 students from LUISS School of Law and collaborating students from the LabGOV. The city participated with a diverse audience of Reggio Emilia City Council Executives and Councillors, academic luminaries, researchers, and leading practitioners. The workshop served as a co-validation process for the previous exercises that had already been conducted in Amsterdam and Thessaloniki, and its role was equally crucial and crucial for sealing the outcomes of the 'Universities as Catalyst for Change' initiative. Key discussions focused on Reggio Emilia's intergenerational vision of sustainability and incorporation of ESG perspectives in impact assessment reflect a move towards responsible governance as a beacon of progress, resilience, and inspiration for other communities. Students participating in the workshop illustrated the crucial role of academic institutions in fostering collaboration, innovation, and progressive governance to address contemporary urban and climate challenges.

For consistency in outcomes and to assist students in conceptualizing their ideas, student input for the user stories was gathered using a dedicated canvas divided into five thematic pillars:

- Landscape Keywords
- Main Characters and Activities Keywords
- Crisis Keywords
- Obstacles and Helpers Keywords
- Solution Keywords

The methodology aimed to create an inclusive and participatory environment. University students were encouraged to express their ideas freely. They collaborated with peers, existing researchers, professors, and policymakers. The goal was to envision the future of academia and research. Participation was organized around urban sustainability challenges. These workshops gathered valuable insights to inform the broader discourse on universities as drivers of innovation and catalysts for positive change in regional ecosystems.

Landscape Keywords	Main Characters and Activities Keywords	Crisis Keywords	Obstacles and Helpers Keywords	Solution Keywords
Diversity, dynamic, mobility (crowded), historical centre remains, urban	Documenting, interpreting, giving meaning, constant structuring	Heavy rain, flooding, worried, panic.	Working with and organizing a diverse group. A lot of knowledge without having practical skills	Collective effort, co-operation, exchange knowledge, organisation, consciousness
Hasty, beautiful, abundant, no time to enjoy, urban	Finding and fighting towards an inclusive, sustainable and fair world, network of friends	Heavy rain, flooding, other cities same fate, emergency services overwhelmed	Overcoming panic, providing in basic needs and sharing skills	New start, trauma, new institutions, mitigate future climate crisis
Distant, observing, statistical, diversity	Diverse, included, being part of the study subject, with people who care	Afsluitdijk breaks, flooding Amsterdam, reality hits us	Loosing nerves, having practical skills	Leaving behind old ways, work together
Nature, stillness, calmness, curious, adaptability	In a team, Accepting shittyness, feeling sorry, detached from the world, delivering good work without belief	Everything changed, living under water, together	Being paralysed, not having access to transport to flee	New environment, harmonious system with animals, flourish
Telepathic, chasing hologram/appearance, living in metaverse, silent	Walking through a vibrant, diverse public space, spontaneous interactions between mixed group	Dramatic changes, thunderstorms, hurricanes, flooding	Being able to start over, collaboration of skills, viewing as a tool for change rather than obstacle	Fast transformation, experience becomes trivial, new solutions become obstacle
Accessible nature-urban, joyful, welcoming, vibrant	Bridging gaps between different disciplines and backgrounds (scientists, artists, tech) through knowledge sharing in conferences, workshops, manual work	Dying trees, toxic soil	Being welcomed by international community	Innovations, old becomes new recourses, circular and sustainable
Water, abundance, ecosystem of expression	Balanced with surrounded nature, unlimited storage capacity in brain memory	Heat, no water left, dry soil, plants died	Being trapped, losing hope. Waiting to eventually being rescued	Smaller scale, nearby, simplicity works, expression
Calmness, availability universe of informations, pleasant	Network of friends, idea exchange based on diversity of surroundings, nature and urban intertwined	No biodiversity, water level rose, people migrate	Being frozen, unable to move, thoughts flying into the world. Being rescued by animals & insects	Collective consciousness, floating ideas
Nature, dune, research hub	Diverse, interdisciplinary group, in constant conversation, light and heavy, tackling problems	Bacteria and viruses, humans and plants slowly dying, hunger and disease	Financial constraints, being under pressure. Sharing expertise, constructive conversations, visiting	Wrong focus, research made it worse, stuck
Omnipresent data cloud, ambiguous, brightness	Local scale, interdisciplinary idea exchange, fluid team size and many interaction between residents, municipality, entrepreneurs	Extreme weather, confusion, fear, death	Working together, combining knowledge instead of discussing	Live safely, new interventions and research, motivated
Bright, thinkspace, collaborating, work-life balance, community	Curiosity, challenging, the world versus coming home and sharing a meal with family	Water everywhere, descending	Forgot how to move, following the lead of others that know how	The problem as tool for radical change, destroy legislative/political barriers for change
Diversity, dialogues, discovering, outside, city	Steady group of co-workers, inclusive, collaborative society	Storm, surviving together, cold	Being powerless against strong forces, unable to understand the attack.	Digital realm, no sight, nothing to discuss, just quiet down
Unwelcoming environment, concrete jungle, leave	Multidisciplinary, learning from other cities and applying different perspectives	Erupting volcano, arguments, screaming	A depleted world. Moving to another planet (affordable space travel)	Freedom, start anew.
Stuck, bureaucracy, each for himself	Engagement between friends without judgement, sharing stories and learning about each other	Virus, chemical attack, determined, courageous	Being stuck in old ways of thinking. Collaboration with innovative companies, residents, city	The cloud an storage discriptions save the day
Pollution, extinction, magic powers, urgency, fix	Sharing perspectives, contributing to an equal world, being curious, driven and excited	Storm, lost safe place	Building from scratch a totally different structure, different life, species, institutions.	The known will not solve but the unknown will, no clear direction, all is white noise
Peaceful, nature, family	Being unable to build and distinguish because of the chaos and overload	Flood, unprepared, dont know what to do	Separated AI from human bodies makes us apatic. We do not feel anymore, can't distinguish ego	New environment, research put in good use, legacy new generation
Curious, together, overwhelmed, speed, persistent		Biodiversity collapse	Lacking survival skills, can't live under water. Help is coming from animals.	New balance of the species, work together to accommodate the not so human environment
Green city, office and lab, collaborate with residents, small changes		Natural disasters, disruption, resilient, preparedness	Hoarders stacking unfair part for themselves versus sharing (human and empathy)	Learn from mistakes
Separated, rushed, green space, happiness		Meteors, indifferent, passed on problem		Rebuilt or planning villages, migration urban citizen to countryside
Redecorated conference room, unfamiliar,		Diveded, lack responsibility		Find new place, use resource in different way, the storm will pass.
		Togetherhness, help, move, rebuild		
		Diversity, collaboration, planning		

Together we survive

The Landscape: Where are you?

In our urban area, nature and water are ever-present, contributing to a serene yet lively atmosphere. The sounds, fragrances and flavours of birds, canals, trees and add to the vibrancy of our surroundings. We inhabit bright workspaces, serving as research hubs where dialogues and collaborations with fellow researchers and residents thrive. Our community values diversity, welcoming various voices and perspectives. However, alongside this tranquillity, the omnipresence of the digital world and data cloud brings a different kind of stillness. While it enables new forms of identity expression, such as holograms, it can sometimes stifle unmediated interactions, leaving only silence. This risks perpetuating our isolation in the ivory tower of the 21st century. Life here isn't always harmonious. Some districts are unwelcoming concrete jungles, and pollution and extinction loom ominously. We feel an urgent need to address these challenges.

Main Characters: With whom are you together?

We engage with diverse groups of people, organizing interactions between people from different perspectives. We're attentive to the world around us, facilitating both planned and spontaneous engagements with residents, entrepreneurs, and fellow researchers. Our public spaces encourage collaboration, extending even to interactions with nature. In our society, ideas flow freely, and knowledge is shared generously. We embrace diverse perspectives without prejudice or judgment. However, navigating the wealth of information available can be challenging. We constantly shift between local and global concerns, light and heavy topics, and the mundane aspects of daily life and the weight of global issues. While many of us are comfortable navigating this complexity, some struggle with feeling overwhelmed and detached. They find it difficult to contribute meaningfully and may lose faith in their ability to effect change.

The Crisis: What happened?

We knew it could happen, yet we were unprepared for the magnitude of these events. Heavy rains and storms caused the dyke to break, flooding our city. Chaos reigned, and people became fearful and panicked. The once safe haven we knew was now full of danger. As natural barriers crumbled, trees died,

leading to biodiversity loss. This created ground for the unchecked spread of bacteria and viruses. Hunger and disease were everywhere, casting a shadow over our once-vibrant city. Some people died, while others sought refuge in safer lands. Yet during the devastation, some chose to remain, working together to rebuild. Their resilience and courage glowed through their struggle as they adapted, even finding ways to thrive underwater by harnessing the power of the canals for survival.

Obstacles and Helpers: What hinders and what helps?

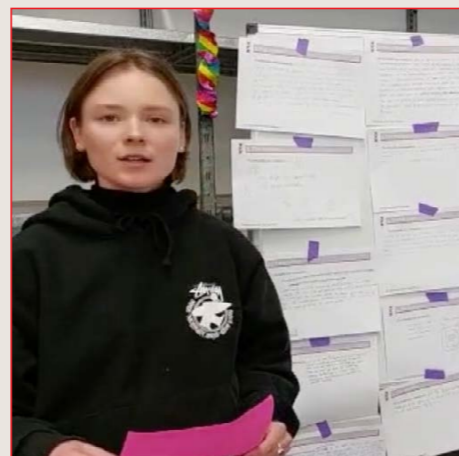
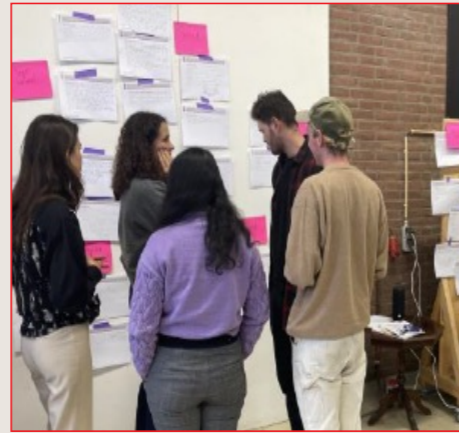
Our world is profoundly imbalanced. In some regions, floods overwhelm everything, while elsewhere, soils are dry, and the sun burns the earth. Inequalities are everywhere; some hoard resources, leaving others with nothing. Transport is inadequate for fleeing these crises. We lack the practical skills to surmount these challenges, and the pressure is overwhelming. We feel paralyzed, trapped in outdated approaches. Our digital avatars exacerbate this disconnection from our bodies, leaving us uncertain of our humanity. Yet, help emerges from unexpected sources. Nature, once mistreated, proves remarkably forgiving. Collaborating with international communities, we find solace and support in the resilience of insects, plants, and animals.

The Solution: How do you solve it?

These events have left a profound mark on our lives, yet we managed to create a new environment. The solution lay in finding a delicate balance: between the old and the new, between what is just and what is fair, between what we know and what we do not, between the complex and the simple, between owning and sharing, and between trust and control. From this balance emerged a new harmony among species. Through collective effort and cooperation, we exchanged knowledge and aided other living beings in expressing themselves. We constructed a harmonious system in which all could flourish. Ideas and consciousness no longer belonged to individuals; they simply floated in the air.

Lesson: What did you learn?

We utilized our problem as a catalyst for radical changes. These transformations realigned our research with the right focus. Along the journey, we discovered that new solutions can sometimes create new obstacles. We also learned that simplicity and small-scale interventions in urban design can empower us to become resilient, joyful urban citizens and researchers.



Outcomes

The outcomes of the workshops provided valuable insights into envisioning the future of academia and research amidst urban sustainability challenges. Through collaborative efforts, participants explored the five thematic pillars, delving into various aspects of urban landscapes, crisis scenarios, obstacles and helpers, and proposed solutions, resulting in a solid narrative for the future-proof university in a continuously changing ecosystem. The main highlights of the narrative are summarized below. At the same time, the complete story, as envisioned by university students in Amsterdam, Thessaloniki, and Reggio Emilia, is included as an illustration at the end of this chapter.

The exploration of landscape keywords derived from students' user stories painted a nuanced picture of urban environments. Concepts like 'Diversity' highlighted the mix of historical and modern elements shaping urban life, while 'Nature' emphasized the presence of natural elements fostering calmness amidst urban chaos. The capacity for evolution and change was encapsulated by 'Adaptability', while 'Accessibility' underscored the importance of inclusive urban spaces. 'Water' symbolized the significance of water resources, and 'Community' emphasized collaborative aspects of urban living and innovation fostering. These concepts, as identified by the future researchers, provided a comprehensive understanding of urban landscapes, also raising critical societal and environmental challenges for cities such as (noise, air, and water) pollution, citizens' awareness and education, as well as bureaucracy alongside opportunities for collaboration among city's stakeholders.

The core themes of the narrative are centred around a diverse array of characters and activities that champion inclusivity, sustainability, and fairness. Specifically, students' stories reflect the need for a collaborative, multidisciplinary, multi-stakeholder spirit and a holistic understanding of the world. The characters engage in interdisciplinary teamwork and embrace global perspectives, enhancing their experiences and weaving a tapestry of collaboration and exploration.

The approach involves learning from other cities and embracing diverse viewpoints, adding depth to the narrative and contributing to a rich exploration and advocacy for a better world. Actively sharing their stories, perspectives, and enthusiasm with friends, students promoted an environment of open communication and judgment-free exchange of creative ideas through their user stories. These core themes are underscored by keywords emphasizing the importance of *diversity*, *curiosity*, and *balance* in tackling complex challenges and nurturing *inclusive*, *sustainable communities*.

Envisioning the future
of urban resilience

Collaborative
exploration: diversity,
nature, adaptability,
accessibility, water

Overcoming global challenges through interdisciplinary teamwork

The crisis unfolds through impactful events, each encapsulated in specific crisis keywords, including *extreme weather events*, *environmental degradation*, and *water scarcity*. The overarching theme revolves around the collapse of biodiversity and the division of responsibility. At the same time, according to the collected insights, survival is paramount, creating a story that demands a collective response and fostering resilience in the face of adversity. The narrative ultimately shifts towards hope as communities band together, offering help, movement, collaboration, and planning to rebuild and foster resilience in the face of adversity.

Navigating obstacles proved challenging, with students reporting on their user stories, practical skills gaps, and financial constraints. Specifically, organizing a diverse group of stakeholders to collaborate becomes particularly daunting due to a lack of practical skills, highlighting the necessity for adaptability during crises. Financial constraints and pressure further compound these challenges, necessitating shared expertise and constructive conversations to overcome obstacles collaboratively. Students' stories delve into the struggle of feeling trapped and losing hope. Their scenarios also explore powerlessness against formidable forces, sparking a quest for understanding amidst attacks. Collaboration with citizens and cities is essential in building a new structure and life after a big crisis, emphasizing innovation in adversity. Challenges intensify as the narrative of students' stories considers the separation of AI from human beings, with survival skills, presenting formidable hurdles. The narrative draws attention to empathy issues arising from resource hoarding, emphasizing shared responsibility and interconnectedness.

Helpers stand up with diverse skills and aspirations

On the other hand, helpers emerge, offering hope and resilience. Change is a collective effort, utilizing multi-discipline collaboration and skills for transformation. Challenges are seen as opportunities, with diverse skills playing a crucial role. Rescue is a core concept in most user stories, guided by knowledgeable individuals. Teamwork prevails, promoting problem-solving, while practical skills and innovation overcome entrenched thinking. Finally, the user stories highlight that collaboration effectively manages challenges and resilience, including the necessary 'post-crisis' fair resource distribution and well-being for all.

Solutions to multifaceted challenges entail a comprehensive and collaborative approach rooted in collective effort and cooperation. Communities aim to mitigate environmental and societal crises by establishing new institutions and shifting focus from outdated practices to foster inclusive environments. Embracing innovation, solutions prioritize sustainability and circular practices, guided by simplicity and collective consciousness. A digital transition enables quiet reflection, leveraging cloud storage to navigate uncertainties. Communities draw on research to shape a new environment, striving for balance among species and fostering resilience. The journey is characterized by adaptability, resource optimization, and a collective commitment to emerge stronger.

Exploring the role of universities

Students in the dynamic academic environments of three countries actively contribute insights on adapting to urban change, crisis management, and fostering sustainability. Despite challenges like limited resources and outdated teaching methods, they are determined to effect meaningful change by seeking experiential learning and interactive teaching methods that ignite their curiosity and passion for discovery.

The university catalyzes societal change, propelling students towards a future where they are active agents of transformation rather than mere recipients of information. Academic advising and support services play integral roles in their growth as students advocate for holistic education, fostering creativity, collaboration, and social and environmental responsibility.

In this vision of a vibrant academic landscape, students see themselves as visionaries and catalysts for social innovation, advocating for interdisciplinary collaboration and research with real-world impact. They prioritize accessibility and inclusivity, demanding affordable housing, education, transportation, and public spaces while promoting equality and inclusivity throughout academic discourse. Emphasizing collaboration and societal impact, they aspire to be drivers of positive change in their communities and beyond, embracing a community-driven approach to shaping the future.

Discussion

The 'University as Catalyst for Change' workshops, designed in the context of the 'City Science Initiative' and conducted in Amsterdam, Thessaloniki, and Reggio Emilia, have yielded valuable insights into the aspirations and needs of future researchers, particularly in the context of addressing global environmental challenges. Envisioning their involvement in urban resilience and environmental sustainability, students emphasized the crucial role of academic institutions and themselves as the next generation of researchers committed to responsible research and social innovation. Key thematic priorities, as emerged from student's user stories and group interactions, included open innovation, inclusivity, affordability, and collaboration, which are essential for preparing students to address the complex crises of the future. Integrating these insights into university policies and practices is imperative to cultivate a vibrant and future-proof academic community. Derived from workshop insights and student perspectives, a series of recommendations and challenges have emerged as follows:

Holistic education for student empowerment

Revealing future researchers' needs

Recommendations for Future Action:

- Foster interdisciplinary collaborations between universities and local communities to address pressing bilateral challenges.
- Implement interactive and engaging learning methodologies and open-access initiatives to empower students in their research endeavours.
- Establish platforms for student participation in decision-making processes to promote inclusivity and ownership within the academic community.
- Cultivate a culture of open innovation and knowledge sharing within and beyond university boundaries.

Challenges Towards Future-Proofing Universities:

- Administration Professionals vs. Academic Mindsets: One of the primary challenges lies in reconciling the priorities and perspectives of administration professionals with academic mindsets. Bridging this gap requires effective communication and collaboration strategies.
- Sustainable Actions through the City Science Offices: Implementing sustainable actions through the CSOs poses challenges related to resource allocation and measuring impact. Adopting sustainable practices requires initial investments and robust monitoring frameworks.
- Prioritization Strategy: Developing a prioritization strategy involves balancing competing demands and allocating resources effectively. Utilizing participatory approaches can facilitate consensus-building.

The above were obtained also through a process of continuous filtration. For example, at the UNICA Conference 2023, themed 'Preparing the universities of the future: (Re)building inclusive and sustainable campuses', preliminary findings from workshops were presented, emphasizing challenges around researchers' identity and participation in decision-making. Recommendations included interactive learning, open access to infrastructures and data, and fostering collaboration between universities and cities. Three initiatives were highlighted: Living Labs, Students as Change Agents, and Science Shops, aiming to promote quadruple helix interaction, engage students in real-life challenges, and bridge the gap between academia and practical societal issues.

Similarly, during the European Week of Regions and Cities 2023 in Brussels (October 2023), the 'Universities as Catalysts' initiative showcased academia-municipality collaboration. Challenges addressed included transforming top-down policies into bottom-up solutions and emphasizing stakeholder trust and cooperation. Strategies involved participatory design, joint research,

and open innovation governance models to enhance urban infrastructures, community connectivity, and citizens' quality of life. However, challenges like reconciling administrative and academic mindsets and prioritizing sustainable actions through the City Science Office were identified, highlighting the complexities of fostering collaboration and innovation in urban contexts.

Ultimately, at the end of the entire endeavour, a crucial question that was posed at the beginning had to find its answer: "Can universities serve as catalysts for transformative change in urban sustainability and act as drivers for cities to embrace the Environmental, Social, and Governance (ESG) framework?"



To position cities as significant stakeholders and experts in the ESG landscape, there is a need to surmount institutional barriers and foster collaborative partnerships. With their inherent potential, universities can play a crucial role in this undertaking by facilitating knowledge exchange, capacity building, and policy advocacy to address pressing urban sustainability challenges.

Effective engagement with city officials, community organizations, and industry partners becomes paramount for universities to enhance mutual understanding and co-create solutions that harmonize academic expertise with local knowledge and priorities. Leveraging intellectual capital, research infrastructure, and convening power, universities have the potential to serve as catalysts for transformative change. By fostering interdisciplinary collaboration, promoting innovation, and nurturing future leaders, they can significantly influence societal attitudes and behaviours toward sustainability.

However, realizing this potential requires more than intention. It demands proactive leadership, institutional support, and sustained engagement with diverse stakeholders. Only through these concerted efforts can universities drive meaningful impact at local levels and on a national and global scale within the dynamic framework of Environmental, Social, and Governance considerations.

Overcoming barriers
for city collaboration

Driving change
with intention

UNICA Conference
2023 exploring future
collaboration

Promoting
quadruple helix

Jean-Charles Lardic

Director of the Observatory, Foresight and Citizen Participation,
City of Marseille

Marseille

Marseille, a laboratory for a city-wide public-private-civic partnership

With Europe's support for the '100 Decarbonized Cities by 2030' project, Marseille is embarking on a radical transition in which the goal of social justice is inseparably linked to the fight against climate change and its effects. To this end, it has deliberately broadened the scope of its action plan. In fact, it is not limited to renewable energies, energy efficiency in buildings and transport, and industrial depollution. It also aims to promote global transformations in our lifestyles and consumption habits that will not only significantly reduce the carbon footprint of our food and all the products we import, but also recreate social ties and solidarity.

With this in mind, and drawing on the creative potential of its territory, Marseille has decided to resort to the most obvious of 'nature-based solutions': giving local players the autonomy and desire to collaborate that will

enable them to build a spontaneously sober ecosystem that produces shared wealth and demonstrates its resilience.

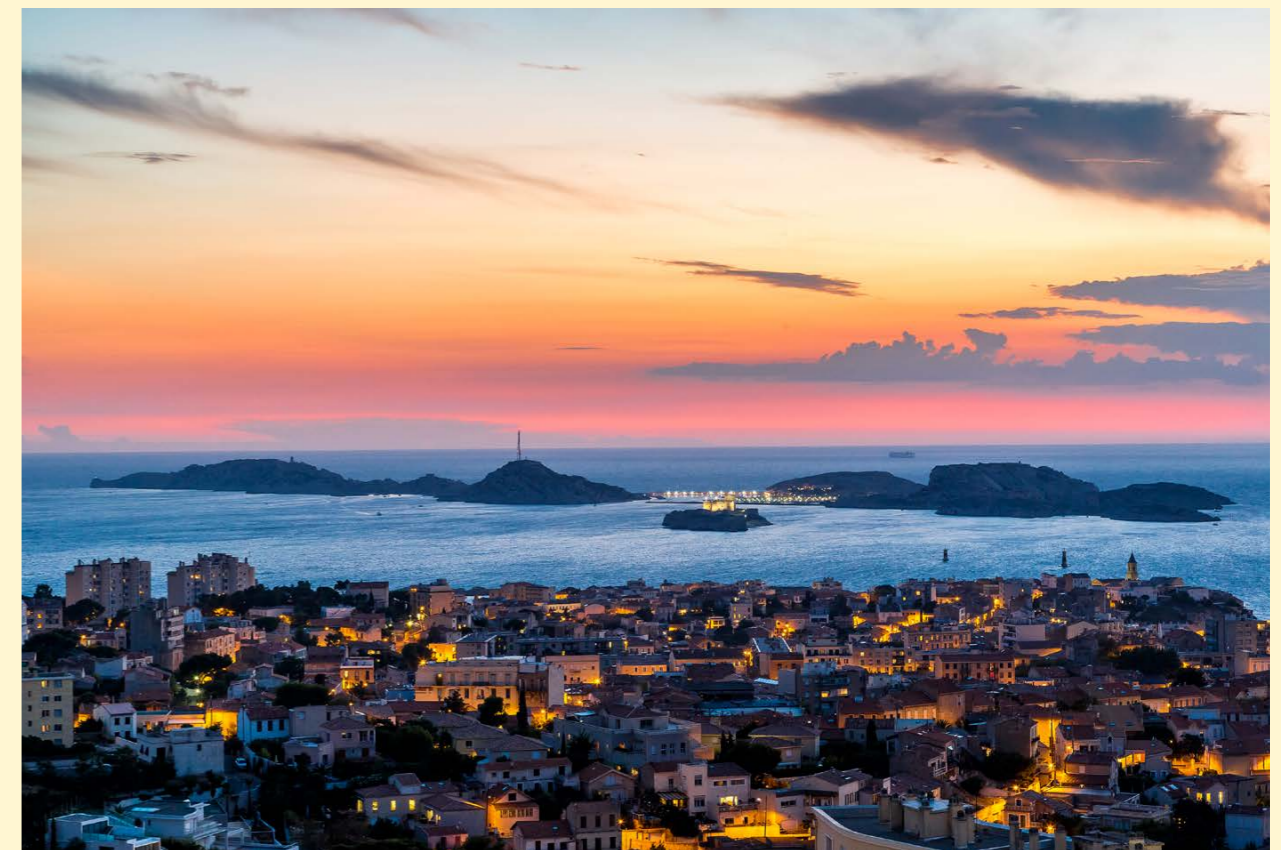
A genuine 'public-private-civic partnership' is thus being set up across Marseille to build a creative and inclusive 'ecosystem'.

On the corporate side, there are many 'transitional players'. The profusion of very active 'tiers-lieux' testifies to this. The new 'Cité des Transitions' is set to play a unifying role among all these players, who are banking on new forms of social economy, low tech, circular and functionality economy. The 'climate city contract' also brings together public institutions and companies, associations and mission-driven businesses. Following in the footsteps of these pioneers, and in line with the ESG dynamic, other companies will gradually come to understand the ever-increasing risks incurred by the development of activities that are disconnected from the region and its inhabitants, and will discover the benefits of participative governance, which

local authorities can help them to implement. To bolster this corporate commitment, the City of Marseille has become involved in the international port city standardization process, which can give it the leverage it needs to encourage local players over whom it has so far had little influence to adopt ESG approaches that will gradually lead them to embrace territorial solidarity.

On the citizens' side, as part of the plan to revive local democracy, Marseillais, selected by lot to form the Citizens' Assembly of the Future, meet one Saturday a month for a year (before being replaced by others) to form a collective opinion on the strategic directions society should take and could accept, particularly in terms of lifestyles. Municipal services will have to take into account their contribution in choosing transition and decarbonization trajectories. At the same time, other residents are being drawn into this dynamic of commitment, notably by getting involved in the participatory budget scheme that is just getting underway.

As far as local authorities are concerned, the systemic approach required by the interweaving of issues demonstrates the key role of the municipal level in creating links between all local players and policies, and highlights the obsolescence of 'multi-level' governance, which divides up competencies between different territorial levels.

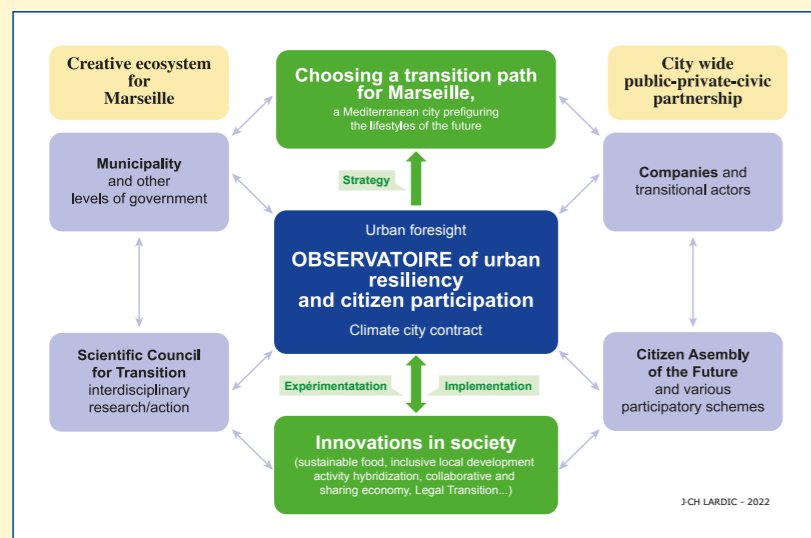


More broadly, there is a real need to accompany these multiple transitions with a global Legal Transition, driven by local players, who will have to revisit the many legislative and regulatory frameworks that often block the innovations born of this territorial creativity.

The final partner in these societal transformations is the research and training institutions, which, across all disciplines, can put their imagination at the service of experiments that will foreshadow the new model of local and inclusive development we are aiming for.

And let's not forget, in conclusion, that the trust needed for this territorial partnership to bring about transition will largely be provided by the sharing of reliable information. This is why we now need to set up a genuine Scientific Council for Transition. It will provide a pool of interdisciplinary expertise that can be mobilized to inform, on the basis of robust and scientifically validated data, the debates of the Citizens' Assembly of the Future, the choices made through the Climate City Contract, and the innovations promoted by the City of Transitions. It will also provide input for the Observatory

of territorial resilience and citizen participation, which will complete the city's foresight and experimentation system towards evidence-based policy making.



4 ESG for Cities

Florian Wupperfeld, Berci Florian, Ferdi Struijs

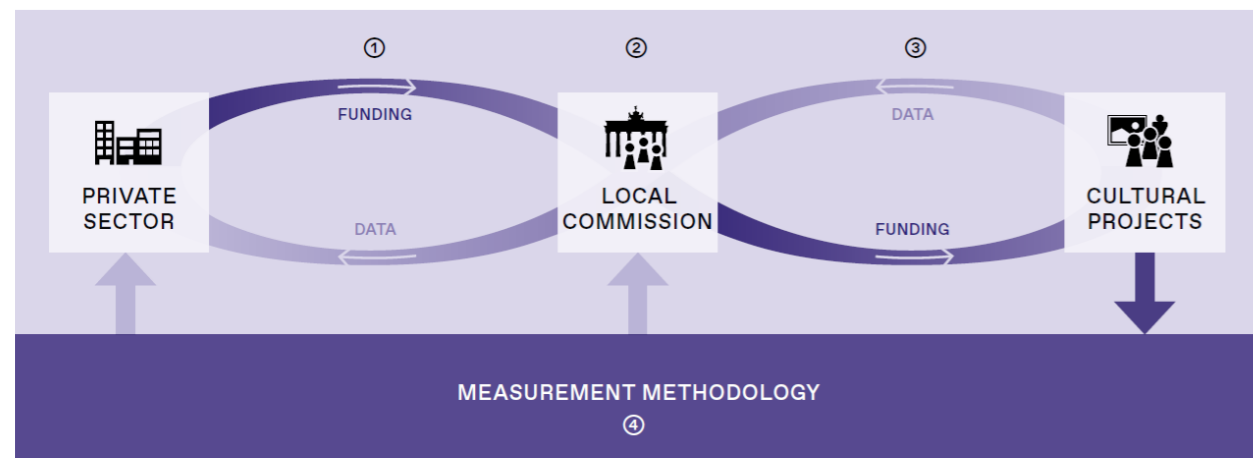


Figure – the ESG for Cities Funding Framework from the ESG Innovation Collective in 2022.

Amsterdam and Berlin jump start the ESG for cities

In 2022, the Chief Science Officer (CSO) of the City of Amsterdam connected with the initiators of the ESG Innovation Collective: Investitionsbank Berlin, Berlin Partner, visit Berlin and Leading Culture Destinations. Since then, under the motto ESG for Cities, she has been considering how the introduction of the CSRD European cities may offer new opportunities to increase the sustainable commitment and investments of companies in cities. In 2023, the partners involved drafted a manifesto and developed an initial setup for an ESG 4 C Funding Framework.

In the spring of 2023, as part of Horizon Europe and based on this manifesto, a grant application was submitted with knowledge institutions and local governments from 8 European cities to further develop this ESG Funding Framework for cities jointly from 2024 onwards. However, the call was not tailored to ESG/CSRD and despite good feedback, this application was not granted.

Building ESG for city capacity

In the municipality of Amsterdam, colleagues from various departments subsequently became more acquainted with the initiative of the ESG Innovation Collective. It quickly became apparent that sustainable programmes and projects are being developed in different parts of the

municipal organisation for which the CSRD may offer new opportunities: Economic Affairs, Treasury, Sustainable Strategy, Area Development, Energy Transition, Social department, Bureau Social Return of Procurement and more. Therefore, it was decided to jointly proceed in the second phase of the research, with Berlin as a partner city, via the ESG Innovation Collective.

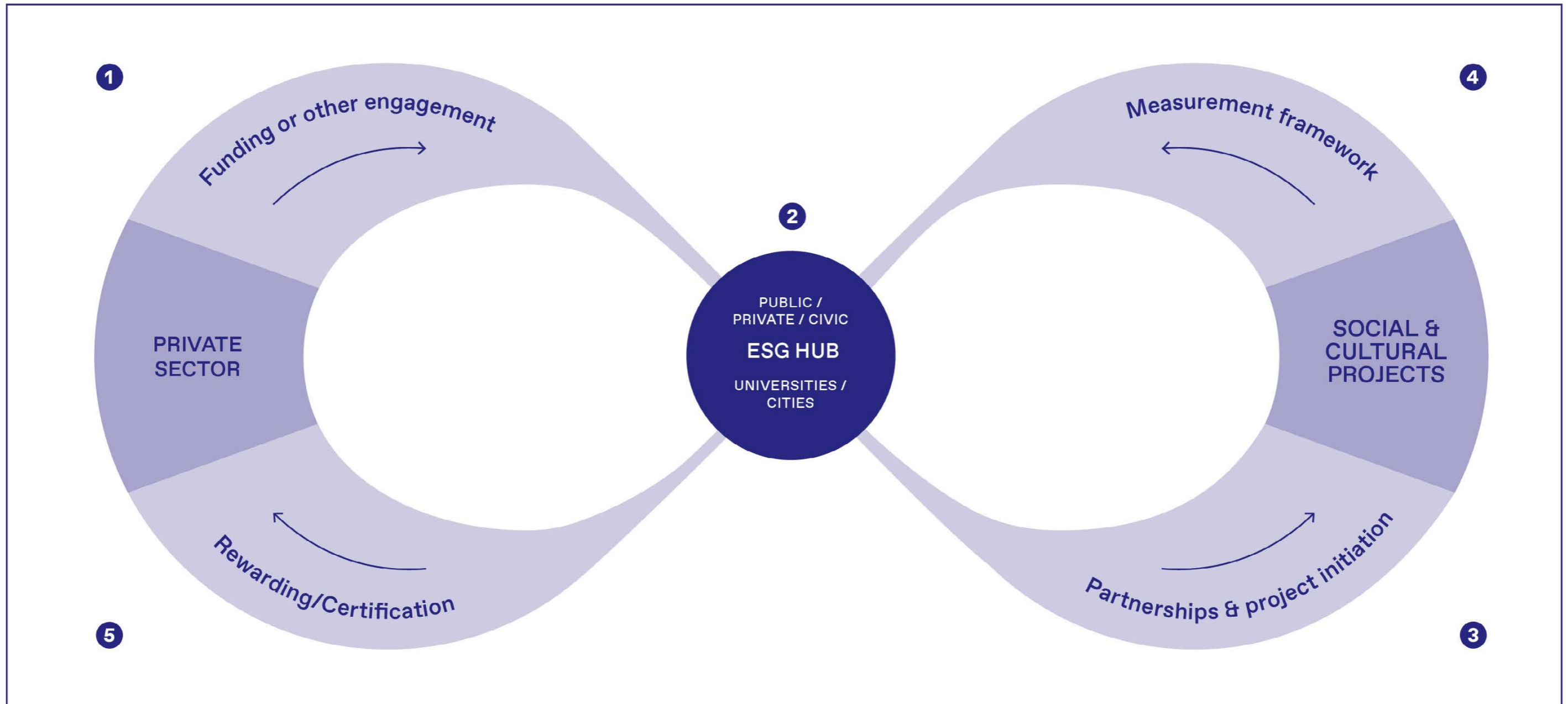
In 2023, Amsterdam's CSO, as the leader of research phase II, played an important role in the further development of the ESG Funding Framework for cities. In this phase, we mainly focused on the 'S' of ESG, investigating which possibilities the context of CSRD offers to especially strengthen the social impact of companies in Amsterdam. Although some attention was also paid to the environmental aspects and governance, these will need to be further analysed and mapped out in a subsequent phase.

Research teams were formed with expertise in social, economic, spatial, public-private-civil cooperation, new technology, procurement and governance. In addition, external knowledge, and private and societal partners were involved through our networks, the ESG Innovation Collective and Berlin collaborations. Moreover, an international Ideation team was formed that translated the research results into the ESG funding framework for cities and possible directions for a follow-up. Open knowledge sharing was key to working together effectively with various stakeholders in different places. We documented interim findings and relevant information via a separate ESG for Cities collection on the knowledge platform <http://openresearch.amsterdam>. This open knowledge sharing was crucial for effective collaboration between the various stakeholders.

The exploration concludes that cities should embrace the CSRD to increase impact on priority social and sustainable urban challenges. Cooperation between residents, visitors, companies and governments is essential. The exploration concludes that it is interesting for cities to embrace the dynamics surrounding the introduction of this new European directive as a city and to further investigate how the impact on priority social and sustainable urban challenges can be increased. Caring for our environment and each other is a broad societal task. Cities strive for broad prosperity and equal opportunities within planetary boundaries. Residents, visitors, companies and governments each have their role in this. But cooperation is also essential to realise these urban challenges. The introduction of a new European directive for sustainable reporting in Europe offers new opportunities for such cooperation. Companies are obliged to provide insight into the social and sustainable aspects of their business operations according to uniform standards, which will have an impact on their social and sustainable ambitions.

City to city ideation shapes ESG funding framework

Embrace CSRD for urban challenges



- ① Private sector investment incentives
- ② ESG Hub identifies where and how private sector can participate in USDIP connecting E to S
- ③ Methodology of funds allocation
- ④ Measurement framework combines general data with local data
- ⑤ ESG rewarding & certification

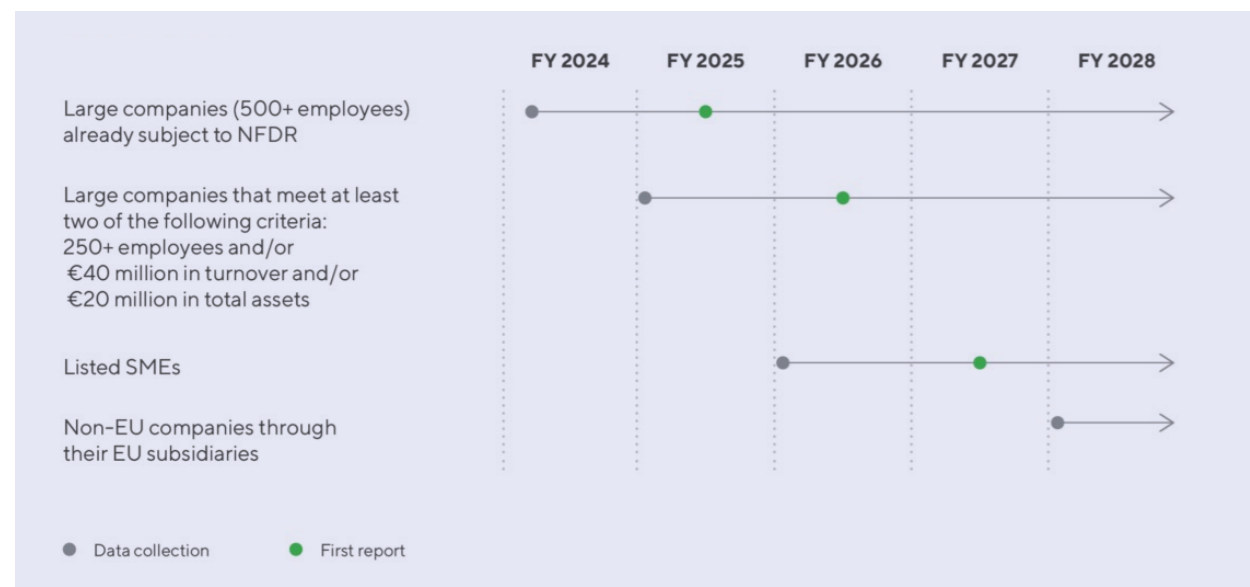
The New European Directive

In November 2022, the European Commission adopted the Corporate Sustainability Reporting Directive (CSRD). This new directive plays an important role in the European Union’s Green Deal and should ensure more transparency about and better quality of companies’ sustainability reporting. ESG reporting is thus becoming just as important as financial reporting in the EU. ESG stands for Environment, Social and Governance and refers to the three pillars (environment, society and corporate governance) in which the sustainability of companies is expressed and which was adopted by the World Economic Forum in 2019.

CSRD: EU’s green transparency boost

The CSRD already applies to Public Interest Entities (PIEs) for the 2024 financial year. In the Netherlands, this concerns approximately 50 organisations that have a major public interest due to their size, number of employees, corporate status or the nature of their activities. These include, for example, large banks, insurance companies, and listed companies, including Schiphol Airport. For other large companies, the CSRD will be introduced from 2025 and for listed SMEs from 2026.

The CSRD also applies to international companies from outside the EU that have activities or effects in Europe. For smaller SMEs, there is a chance of a lighter and possibly voluntary variant of the CSRD after 2026.



The expected implementation of the Corporate Sustainability Reporting Directive (CSRD), source: efrag.org

Dutch Social Impact Real Estate Partnership

In November 2023, Bouwinvest, pension fund ABP and pension fund bpfBOUW, announced their collaboration in the Dutch Social Impact Real Estate Partnership. ABP commits €250 million and bpfBOUW €150 million to the partnership, which aims to add and retain affordable (care) homes in the Netherlands’ social and low mid-rental segment, focusing on homes for groups currently struggling to find housing. To substantiate the social objectives, the partnership will focus on homes and care homes (minimum 80%), as well as other social real estate like schools or neighbourhood centres (maximum 20%), all energy-efficient, climate-proof and sustainable buildings.

This initiative demonstrates how two large Dutch pension funds have organised themselves to invest in real estate projects with social and sustainable impact. The role of their ESG strategy and/or reporting obligation in this regard remains unclear and requires further investigation. However, the CSRD may offer new opportunities for other investors, developers and corporations in their network to realise more real estate projects with social and sustainable impact.

Approximately 50,000 companies within the EU will ultimately fall under the CSRD’s purview. This represents a substantial increase from the circa 11,000 enterprises currently subject to the Non-Financial Reporting Directive (NFRD). Internationally, it is anticipated that around 10,000 companies headquartered outside the EU will be affected.

In addition to reporting on their activities, the reporting obligation also necessitates the disclosure of information about the performance of all entities within their value chain. Consequently, a multitude of companies, such as suppliers and customers, including those operating internationally, which may not currently be subject to reporting requirements, will also be impacted. Furthermore, the CSRD applies to international companies based outside the EU that have activities or effects within Europe. After 2026, there is a possibility of a lighter and potentially voluntary variant of the CSRD for smaller SMEs.

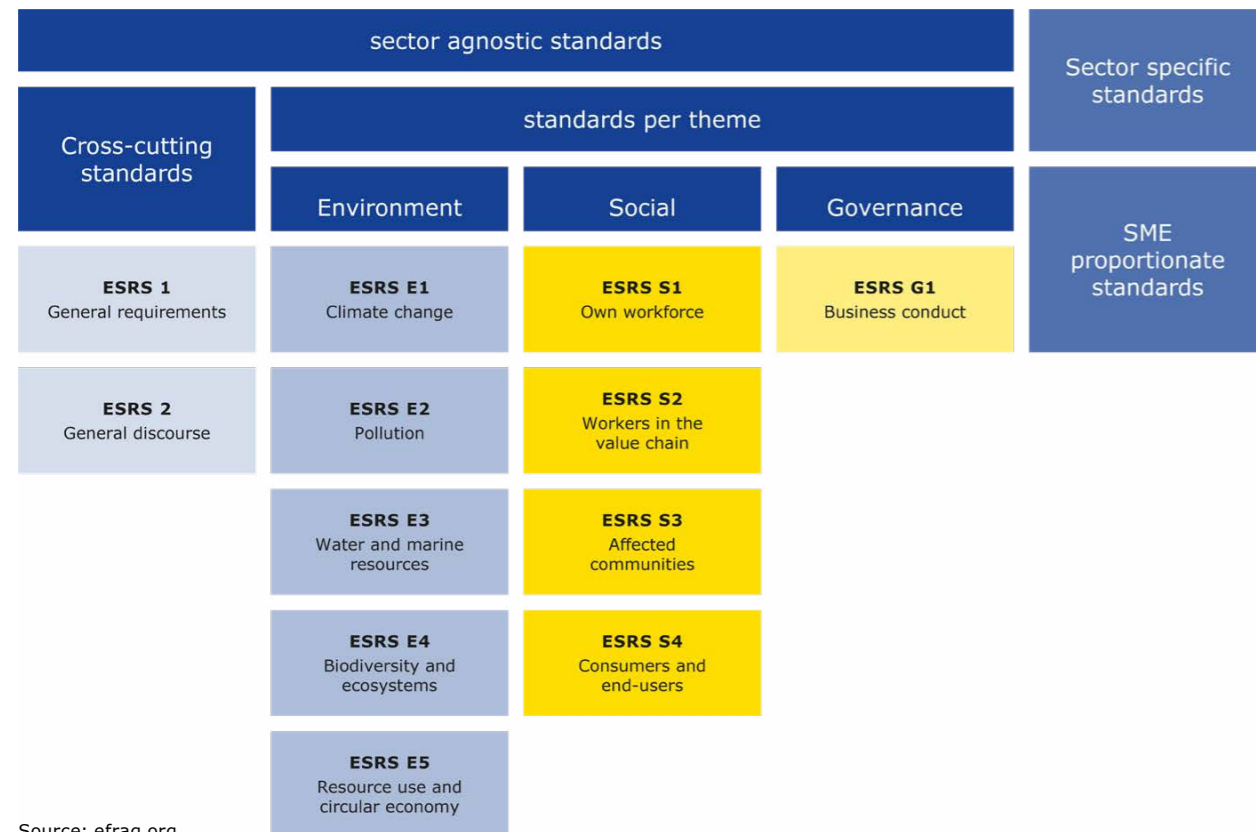
CSRD mandate extends reporting scope beyond 2026

The Effect of the CSRD on the Private Market

More profound than the reporting obligation imposed on enterprises is its impact on their sustainable ambitions, strategy, and impact. CSRD-obligated companies are required to report by 2 overarching and 10 thematic standards; the European Sustainability Reporting Standards (ESRS). The impact of companies on people and the environment will thereby not only become transparent but, for the first time, truly comparable.

CSRD’s influence through standardization

The Corporate Sustainability Reporting Directive



Source: efrag.org

Transparency redefined

Significant stakeholders, such as investors, employees, customers, suppliers, communities, and governments, will consequently be better positioned than ever before to make socially and environmentally conscious decisions regarding which companies they wish to collaborate with, under what conditions, and within the context of which challenges.

This will have ramifications for aspects such as the financial position of the company during refinancing, mergers, and sales, the attraction, retention, and engagement of talent, customer choices, and the overall competitive position and value of the enterprise in the market. Sustainability will thus assume a prominent role in corporate strategy.

CSRD-obligated companies and businesses within their value chain will consequently face a stronger (exogenous) incentive than before to steer towards social and sustainable objectives, in addition to financial ones, and will adjust their corporate strategy accordingly.

Furthermore, companies can more effectively realise their impact across various themes through local collaboration rather than solely within their own organisation and value chain.

Consider the development of sustainable infrastructure for heat and energy, as well as circular networks upon which companies rely for their environmental performance (ESRS E1 Climate, ESRS E5 Circularity). National, regional and local government plays a crucial role in their development. Moreover, sufficient participation from other entrepreneurs and/or citizens is frequently crucial. By collaborating on sustainability initiatives, cities, businesses, and citizens can optimise such infrastructure and networks, enhance their environmental impact, and improve overall efficiency.

However, one must also contemplate the power of (local) collaboration on social themes. For instance, providing adequate training and development opportunities within local networks and suitable housing for employees and workers in the value chain (ESRS S1 Own employees, ESRS S2 Workers in the value chain), offering sufficient affordable housing and business premises, and creating space for community initiatives by citizens and entrepreneurs in existing real estate and transformation projects (ESRS S3 Affected communities, ESRS S4 Consumers and end-users). Companies that collaborate locally can thus become more attractive to (impact) investors, consumers, and talent.

Local collaboration with cities, businesses, and communities in the vicinity therefore presents opportunities for companies to realise certain ESG/CSRD goals more effectively. Capital is also following this trend. There is a growing share of ESG-labelled capital in the global market, which presents opportunities for cities to increase sustainable and social investments in local environmental and societal initiatives. According to Bloomberg Intelligence, 85% of investors believe that ESG leads to better returns, resilient portfolios, and improved fundamental analyses. Globally, it is expected that by 2025, approximately \$53 trillion will be invested in ESG assets, accounting for more than a third of the projected \$140.5 trillion in total assets under management. Furthermore, the proportion of ESG assets is anticipated to continue rising.

Ripple effect in the corporate business landscape

The crucial role of governments

\$53 Trillion for the future of ESG

Alexei Novikov
president Habidatum

Matthew Gardiner
Fronteer Innovation AI & Fintech

Capital Flows

Most people outside the financial sector understand money from the perspective of personal use for well-being and survival. The financial sector though, has a deep impact on how marketplaces develop, businesses grow and how cities and other local governments can invest in social and ecological development. Capital flows to and from cities and regions are characterised by five distinct phases. Each of these can be significantly influenced by ESG and climate transition goals, frameworks and legislation.

1. People & Other Beneficiaries

People are the ultimate beneficiaries of capital flows as their communities are impacted by what is funded and what is not. Education, healthcare, transport, and culture require vast investments in the range of hundreds of millions of Euros to build and billions of Euros to run annually. Investing for impact ranges massively and can include affordable housing initiatives with strong local employment prospects, special vocational needs, social inclusion and environmental conservation programs.

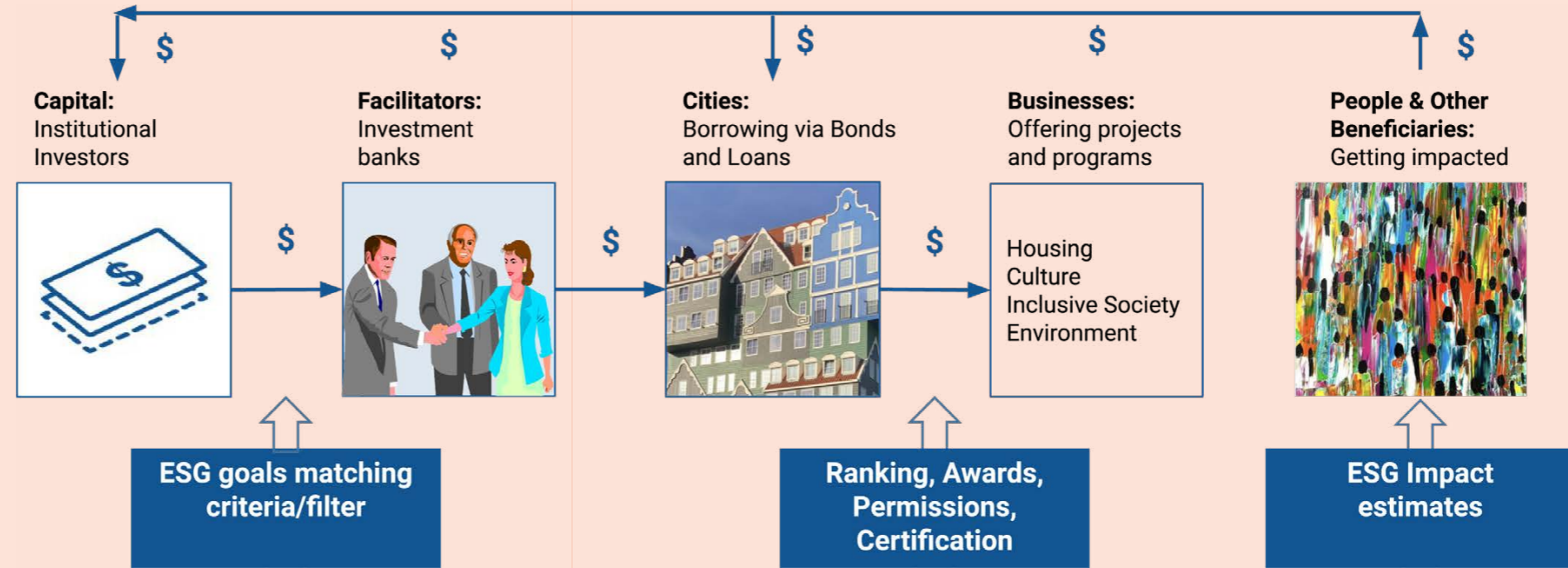
How you invest defines the world you want to live in. ESG & impact investment estimates are tested at the phase of engagement of capital when the ripple effects of capital allocation have the potential to impact the lives of

many individuals. In the EU, under CSRD, companies must report on the success or failure of outcomes in their environmental, social, and governance activities, with the social pillar focusing on a just and inclusive society.

2. Businesses – Projects and Programs

Businesses tap into cities' capital streams, offering projects and programs including housing, infrastructure, culture, social inclusivity, and environmental initiatives. Accounting for a large share of cities' budgets.

SMEs account for 98% of businesses in the EU, The European Investment Fund (EIF) has stressed that their engagement is critical to a successful climate transition. They advocate for public funding for frameworks which accelerate the growth of innovative



companies and enable them to sustain private capital investments. Accordingly the EIF has built a framework for quantifying, reporting, and aligning interest on impact metrics at all levels of the investment chain.

Cities around the world are consulting on or have developed robust frameworks to regulate the responsible and sustainable deployment of capital in line with the Sustainable Development Goals (SDG's). Including a rigorous system of ranking, awards, permissions and certifications to validate and recognise projects which meet these criteria. For example, The Bureau of Social Return – The City of Amsterdam was established over 10 years ago as the expert authority on social return policies in Amsterdam. The Bureau currently oversees more than 150 million euros in

social return from the City of Amsterdam's procurement budget each year.

3. Cities – Bonds and Loans

Cities are a crucial destination for capital raising funds through the issuance of bonds and loans to finance their development needs. Municipal bonds or 'munis', are debt securities issued by cities and other local government entities to fund public projects like infrastructure, schools, hospitals, social engagement, and other key infrastructure. The bonds essentially allow cities to borrow money from investors to finance these expenditures. There are two main types of municipal bonds:

- General Obligation Bonds – Backed by the full faith, credit, and taxing power of the issuing city.

- Revenue Bonds – Repaid from revenues generated by the specific project being financed, like tolls, fees, etc

Big cities have substantial multi-billion euros budgets and smaller cities budgets are most often the largest budgets in their regions. They are highly significant entities in financial markets and are relatively low-risk compared to corporate bonds, enabling them to command high premiums.

4. Facilitators – Investment banks

Investment banks play a critical role in facilitating the issuance and sale of new securities including stocks (equity) and bonds (debt) to the public financial markets on behalf of companies and governments looking to raise capital. This process is known as underwriting. Investment banks are

Capital Flows

facilitators who act as intermediaries between institutional investors and the assets they're investing in. Throughout this process, the investment bank provides advisory services, conducts due diligence, prepares regulatory filings, and may form an underwriting syndicate with other banks to increase distribution capacity. Investment banks act as intermediaries, leveraging their expertise and investor networks to help issuers raise capital by issuing and selling bonds.

The bank earns an underwriting fee or gross spread. Which is the difference between the price at which they purchase the bonds from the issuer and the price at which the bonds are re-sold to investors. Many European Investment banks' counterparties are regulated by relevant European Supervisory Authorities (ESAs) which include The European Banking Authority (EBA), The European Securities & Markets Authority (ESMA). Their counterparties regulators in the United States include The Federal Reserve (Fed) & Securities & Exchange Committee (SEC).

Investment in ESG, impact and climate transition ventures is rapidly increasing. For example The European Investment Fund (EIF) has reported a substantial increase in ESG allocations between 2016-2022. Many financial regulators around the world including the ESAs and the SEC are concerned about the rising risk profiles of these investments.

Accordingly, they currently consult on guidelines or have issued directives concerning disclosures on banks environmental and societal risk factors.

5. Capital – Institutional Investment

Institutional investors, such as pension funds, endowments, insurance companies, and sovereign wealth funds, typically make investments ranging from tens of millions to multiple billions of Euros across a diverse range of asset classes and strategies. These include 'fixed income' investments in:

- Government bonds (Treasuries, municipal bonds)
- Investment grade corporate bonds
- High-yield corporate bonds
- Emerging market debt
- and private equity/private credit investments in private companies and infrastructure.

As investment volumes in ESG, impact and climate transition investments increase rapidly each of the five distinct phases of capital flows is being subjected to increased levels of scrutiny and accountability. With the goal of addressing climate change in environmental terms and scaling social return from investments in a reliable manner. To promote the development of resilient and inclusive communities.

EIOPA, the European supervisory authority responsible for regulating and supervising entities operating in the insurance industry (insurers, reinsurers) as well as the occupational pensions sector (pension funds, retirement schemes) across the European Union, set out four principles for insurers and pension funds when making ESG disclosures and sustainability claims:

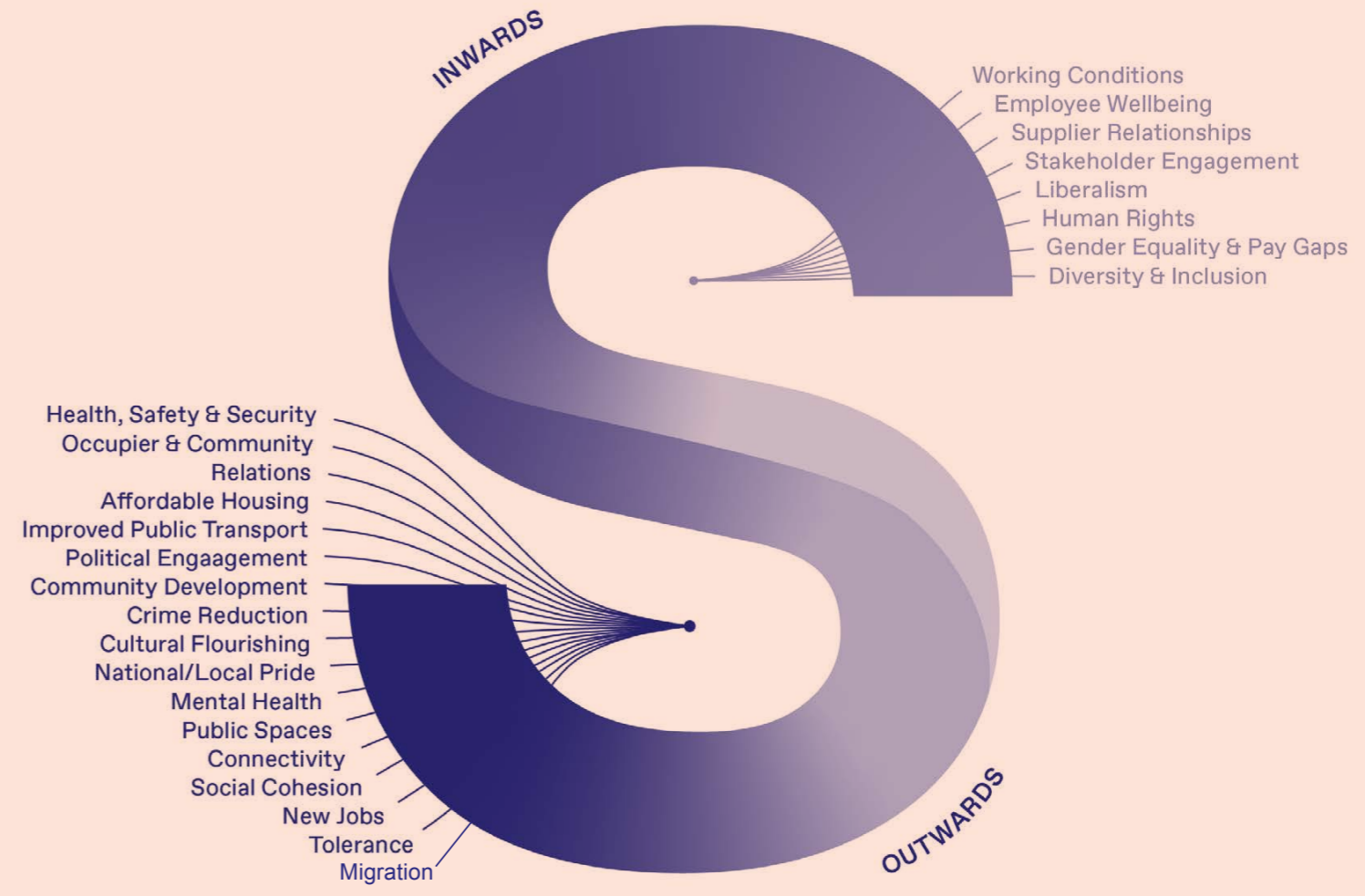
Principle 1: Claims should be accurate, precise, and consistent with the provider's overall profile/business model or product profile.

Principle 2: Claims should be kept up-to-date, with changes disclosed in a timely manner with clear rationale.

Principle 3: Claims should be substantiated with clear reasoning and facts.

Principle 4: Claims and substantiation should be accessible to targeted stakeholders.

In conclusion, institutional investors originate the capital which flows across the financial system and into cities and businesses ultimately impacting people in terms of what is funded and what is not, as described above. The EIF recently stated that there is no reason for complacency, there is much more to do. How you invest defines the world you want to live in. Transparent measurements of impact are required for ESG/CSRD to become effective.



Unlocking ESG Investment: Bridging Trust Gaps and Measurement Challenges

A substantial \$50 trillion in capital eagerly awaits deployment into Environmental, Social, and Governance (ESG) projects. However, the establishment of trust remains a crucial barrier to this vast pool of capital finding its way into impactful initiatives.

Alexei Novikov

Challenges and Requirements:

- **Measurable Proof for ESG Capital:**
ESG capital demands tangible and measurable evidence of its positive impact on communities.
- **Regulatory Concerns:**
Regulators express apprehension over potential mis-investments in the ESG space in the absence of a robust and independent impact-measuring system.
- **Municipal Dilemma:**
Municipalities recognize the need for ESG earmarked capital but find themselves in a catch-22 situation as they must establish a robust social return measurement system before attracting such investments.
- **Mistrust Implications:**
Fear of mistrust poses a significant threat, potentially leading to capital flight from social and cultural projects, hampering their overall success.

Proposed Solutions:

- **Transparent Impact Reporting:**
ESG projects should prioritize transparent and detailed impact reporting, providing measurable evidence of their contributions to social and environmental causes.
- **Independent Impact Measurement Systems:**
Establishment of independent and strong impact measurement systems is crucial to address regulatory concerns and provide verifiable data on the societal benefits of ESG investments.
- **Collaborative Efforts with Municipalities:**
Collaboration between ESG investors and municipalities is key. Investors should work hand-in-hand with local governments to assist in developing reliable social return measurement systems, fostering a conducive environment for ESG capital infusion.
- **Building Trust through Communication:**
Open communication and clear narratives can help build trust. ESG projects should proactively share success stories, detailing their positive impacts on communities, to alleviate mistrust concerns.

Bridging the trust gap and addressing measurement challenges are imperative for unlocking the immense potential of ESG capital. Collaborative efforts, transparent reporting, and proactive communication can pave the way for successful and impactful ESG investments, ensuring a sustainable and positive outcome for both investors and the communities they aim to serve.

DAO role:

DAO could effectively bridge a credibility gap that persists between investors and social/cultural projects, hindering the flow of capital to initiatives aligned with societal and cultural goals. To address this gap, an innovative approach is needed to empower investors who prioritize social and cultural impact

- **Transforming Non-Market Proprietary Big Data:**
Non-market data (mobility, consumption, social and business diversity), often overlooked, can be harnessed to create performance and impact benchmarks. This transformation enables investors to gauge the social value generated by their investment projects.
- **Establishing Performance Signals:**
Develop clear and tangible performance signals derived from non-market data. These signals serve as indicators of the social impact of investment projects, providing investors with measurable and credible insights.
- **Creating Impact Benchmarks:**
Establish comprehensive impact benchmarks derived from non-market data, enabling investors to assess the effectiveness of their investments in contributing to social and cultural objectives.
- **Facilitating Automated Inter-City Comparisons:**
Implement a streamlined and automated system for inter-city comparisons. This functionality allows investors to swiftly evaluate the performance of social and cultural projects across different cities, aiding in informed decision-making.

Benefits:

- **Enhanced Credibility:**
By utilizing non-market data for performance and impact benchmarks, investors gain a more comprehensive understanding of the social value generated by their investments, bolstering credibility.
- **Informed Decision-Making:**
Performance signals and impact benchmarks serve as crucial tools for investors to make informed decisions, ensuring their capital is directed towards projects aligned with their social and cultural concerns.
- **Efficient Benchmarking:**
Automated inter-city comparisons streamline the benchmarking process, allowing investors to efficiently assess the relative success of social and cultural projects in different locations.

The Position of Cities and Regions in the Context of the CSRD

Cities and regions are already actively engaged in partnerships with businesses of all sizes, transition agendas, promoting impact entrepreneurship, the circular economy, an inclusive labour market, and corporate volunteering. In this regard, the CSRD is highly relevant for cities and regions. However, until now, cities have scarcely assumed a position in the dynamics surrounding the CSRD. ESG reporting has primarily been viewed by governments as an obligation of the private sector, which should primarily motivate companies themselves to further sustainability efforts.

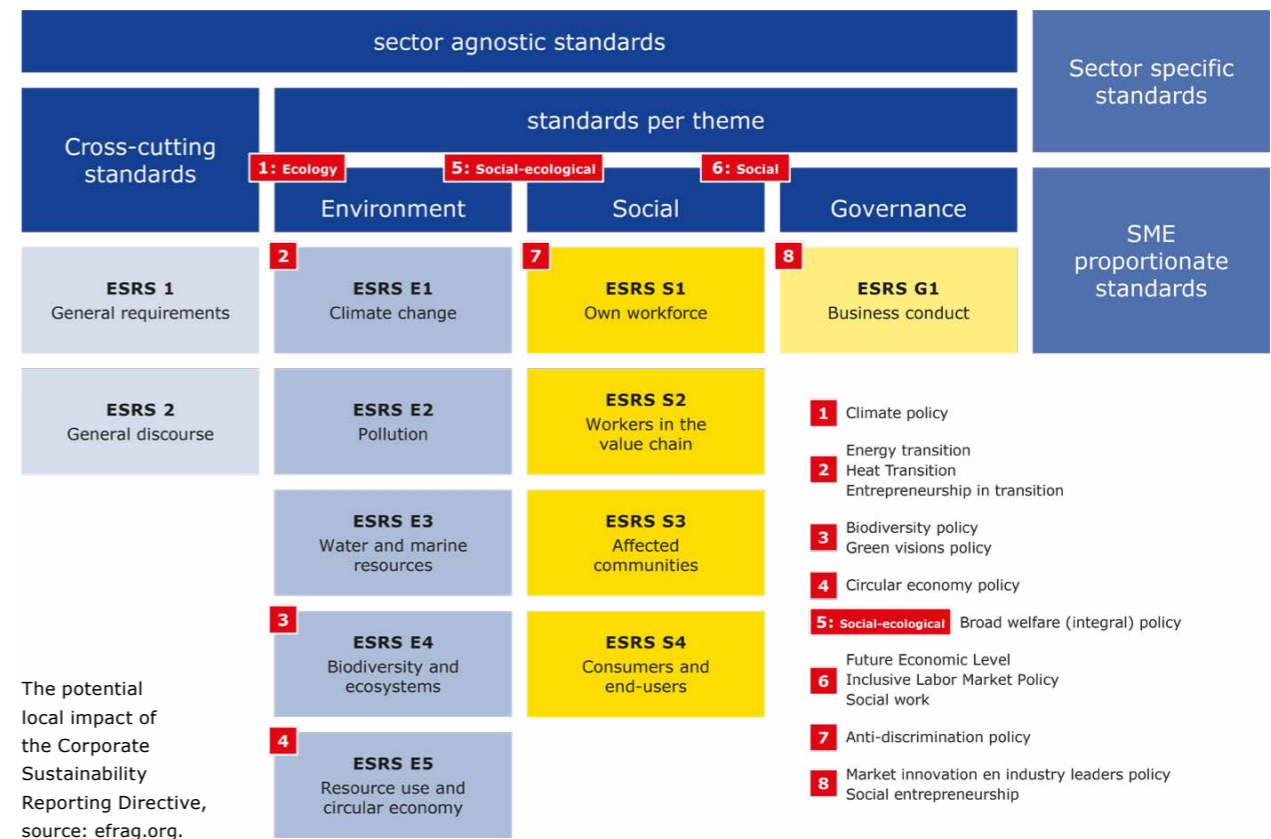
In the exploration, various participants advocated for the city to embrace the dynamics surrounding the CSRD, proactively enhance municipal knowledge in this area and further investigate how we can map and concretise these dynamics for urban challenges.

The increasing ESG ambition of CSRD-obligated companies and businesses presents new opportunities to connect with the social and sustainable ambitions/challenges of local entrepreneurs, citizens, and governments. This is particularly true in cases where local collaboration adds more value than can be realised independently. This is reinforced by the fact that cities can engage in various roles in the value chains of companies, such as regulator, permit issuer, customer, subsidy provider, financier, leaseholder, shareholder, director, and connector. These roles offer diverse possibilities to influence the efforts of companies towards local social and sustainable goals and foster new collaborations.

Cities and CSRD: a relevance awakening

UseSpace

Amsterdam startup UseSpace connects organisations' unused office space to local social initiatives needing a place. For example, the Philharmonie symphony orchestra had been looking for a better rehearsal place for a long time and since September 2023 they have rehearsed every Friday evening in Edge Stadium. The Amsterdam Volunteer Centre (VCA) organised its annual 'mix and match' at Colliers' headquarters. Collaborating with the municipality of Amsterdam's Stadsloods, among others, UseSpace has offered 16,500 m² of space since July 2023, with 85 initiatives registered, 23 matches made, and 4,760 m² of space saved. UseSpace is investigating how to provide CSRD-obliged companies sharing office space with social initiatives with valid impact data or certificates for their ESG reports. It demonstrates private companies' willingness to share unused office space and their interest in providing valid impact data or certificates for their ESG audit to encourage more supply. The CSRD offers potential new opportunities for other organisations to connect social initiatives and private enterprises.



Intersections with Municipal Policy Areas

The themes on which companies will be required to report under the CSRD intersect with multiple social and sustainable policy areas, potentially offering new points of reference for policies addressing a multitude of urban challenges.

The CSRD touches upon various agendas concerning broad prosperity and the doughnut economy, equal opportunity, the sustainable future of the city and organisation, the sustainable strategy, the connection between the physical and social realms, and the city's governance. This includes areas such as the climate budget, area-based operations, co-creating the city, seeking a new relationship between citizens, the market, and the government, strategic partnerships, and the further elaboration of societal shareholders to participating interests.

The introduction of the CSRD thus provides new opportunities to connect the social and sustainable challenges faced by entrepreneurs, residents, and the city, and to achieve greater impact together.

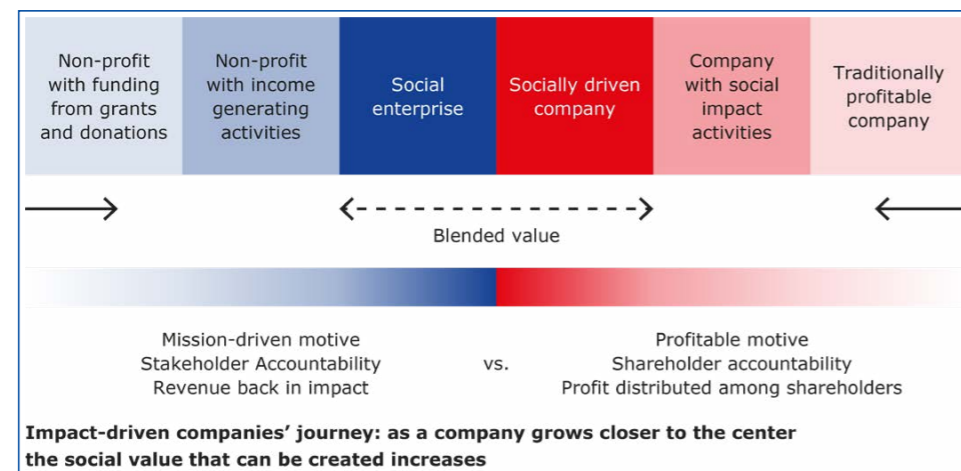
Leveraging ESG ambitions locally: opportunities abound

Connecting city challenges

Stimulating the Transition for Businesses

Various presentations draw attention to the fact that the business world requires significant focus on the transition towards sustainability. For instance, a recent study by MVO Nederland shows that only 17.5 per cent of the Dutch economy can be characterised as the 'New Economy'. Making the transition to sustainability is not accessible, advantageous, or comprehensible enough, causing entrepreneurs to hesitate. The government can make sustainability more financially and commercially attractive, according to this report. It appears that 80 per cent of businesses still have a long way to go in terms of making their operations more sustainable. Cities can also guide and support businesses in this endeavour, as the local scale is particularly important for circularity. In the sustainability challenge, the instruments for creating societal impact are also of great importance. Without social embeddedness, the climate transition is doomed to fail.

An image depicting the concept of an impact enterprise. The Impact Enterprise: As an enterprise moves closer to the centre of the image, the societal value it can create increases proportionately.



Slow transitions
and urgent calls
– a corporate
business outlook

The CSRD offers various opportunities for the transition of the local economy:

- Stimulating Social Entrepreneurship:
 - Stimulating Social Entrepreneurship and Societal Business Activity
 - Stimulating and facilitating (nascent) social entrepreneurship
 - Strengthening companies' change agendas by collaborating with certifications, and codes, and encouraging impact measurement
 - Strengthening networks (e.g., B Lab / B for Good Leaders, Economy for the Common Good, Doughnut Economic Action Lab and more)
 - Enhancing the concept of 'True pricing' by showing ecological and social impact as well

- Orchestrating Impact Deals, in which companies promise to address societal challenges
- Stimulating Corporate Social Responsibility: Volunteer work by companies, corporate giving (e.g., in-kind or with knowledge)
- Companies as partners in addressing societal challenges: The increasing ESG ambition of CSRD-obligated companies and businesses offers new opportunities to work with entrepreneurs on societal challenges, for example, regarding an inclusive labour market.
- Improving competitiveness and strengthening entrepreneurship: Entrepreneurs have limited knowledge about the CSRD. The government can play a role in preparing them for this and thereby improving the competitiveness of businesses. Additionally, the CSRD can help strengthen the transition agenda in the city. It is a hook that the municipality can use in conversations with businesses.
- Business climate and the city act as an impact hotspot: By taking an active role in the CSRD, a city can distinguish itself from other places in Europe. In this way, it will attract companies that are at the forefront of the broad prosperity economy and add societal value to the city more quickly.
- CSRD is also an opportunity to better meet the needs of entrepreneurs
- Improving market access: The CSRD offers opportunities to connect frontrunners in the economy to larger companies that will seek out parties that excel in CSRD themes. The municipality or region can play the ambassador role, for example, at Buy Social events where it connects companies interested in social procurement with social entrepreneurs in the city based on their procurement needs.
- Access to capital: focusing on the need for transition in the field of financiers, the city or region can strengthen networks of significance for this sector. The CSRD can be an additional hook here for creating evidence-based impact investing networks.
- Business premises: For societal entrepreneurs, finding affordable business premises is in many cities and regions a challenge. Local governments are also focusing on realising area development and transformation projects. The CSRD provides developers and investors in their value chain with possible new opportunities, as the societal impact of real estate and real estate projects will play a more important role in addition to financial returns.

- The CSRD provides a framework for engaging with developers on how they can accommodate societal facilities and societal entrepreneurship, for example, by giving a social neighbourhood hub run by a social enterprise a place in a new business complex.

Cities Procurement: Social Return

For large tenders, contractors are asked to contribute to the social objectives that the city pursues, for example, supporting vulnerable groups that could use assistance. Social Return thus becomes an important part of the procurement process. In this way, economic activity in the city is linked to social objectives, and the municipality's investments also generate social returns. Social Return requires that purchasers and entrepreneurs continually consider how investments will also generate Social Returns. This requires creativity, technical expertise, organisational ability, and sometimes the courage to make mistakes. It is an important challenge to continually consider how procurement and the service provision and business operations of contractors can be linked to social impact in a smart, lawful, and proportionate manner: work, access to work, or another form of implementation.

The CSRD may provide new opportunities for setting and monitoring Social Return obligations between societal initiatives and reporting-obligated companies. The CSRD may also provide new opportunities to give the social and sustainable impact of companies and their commitment to further sustainability within the framework of an assignment a more substantial role in selections.

Real Estate and Area Development and Transformative Projects

Research shows that people like to live in Vital Neighbourhoods. In a vital neighbourhood, people can meet each other, activities happen, culture is blossoming, and residents can develop themselves socially and economically. Such a neighbourhood can also adapt physically to the (constantly) changing socio-economic dynamics. Creating such vitality in new areas requires extra attention for societal development and extra investment. For example: good connections between surrounding neighbourhoods and with other parts of the city are essential for social and economic vitality. A ratio of residents to workers between 0.5 and 2.5 is a prerequisite and ensures social and economic liveliness. Accessibility, diversity, affordability, and proximity of workspaces facilitate economic development, as does flexible construction. Places to meet are important for personal identity, social cohesion, and safety. Think of green spaces, squares, and neighbourhood functions.

Creativity, courage,
technical expertise,
organisational ability

From procurement
to return and back

Key to
livability

Edible Cities

The Edible Cities network was established with a European subsidy and contributions from knowledge institutions, cities, NGOs and several small and medium-sized enterprises. The project aims to mainstream solutions around the edible city concept, inviting citizens to collaboratively build it and contribute to a paradigm shift in urban dwellers' lifestyles. Involved citizens and employees collaborate, discovering that they themselves drive transitions. Meanwhile, citizens and organisations in about 21 cities and regions participate, learning how to evolve their social initiatives into a sustainable new economy. The overall conclusion of this profound research indicates that the urban green communities either develop themselves into social entrepreneurs, get structural support to survive, or disappear within a few years. The CSRD offers potential new avenues for private companies to engage more deeply with such social initiatives and participate in their further development.

From an urban planning perspective, the (spatial) characteristics of a vital neighbourhood are divided into social, economic, and physical conditions. The interplay between social, economic, and spatial conditions creates vitality but is not a given in standardised urban development practices. Despite the ambitions of the local government and often also of investors, it is not possible to realise vital neighbourhoods or revitalise non-vital neighbourhoods. There are several obstacles (in the system) that make it difficult to get the non-residential programme (think of small neighbourhood shops, space for starting entrepreneurs, residents, and general practitioners) off the ground. Yet these are important for the vitality of a neighbourhood and the opportunities for entrepreneurs and residents.

The CSRD offers involved developers, owners, housing associations, and investors the opportunity to contribute to their ESG ambitions by more structurally providing space for societal initiatives and cooperatives of citizens and entrepreneurs in their real estate projects (S3, S4). The municipality can be an active discussion partner in this and use the CSRD as a hook in these discussions. The ESG/CSRD can be an incentive for real estate developers to engage and do extra investment, offer lower rent, create new avenues of access and more.

Strategic Partnerships

For the EU Mission to achieve 112 Climate Neutral Cities by 2030, the ESG/CSRD frameworks offer a new perspective for realising strategic partnerships in the so-called climate contracts. Cities make agreements with various partners in the city to achieve climate neutrality. These are complex processes that require long-term involvement so that they can also jointly discover and learn what does and does not work locally. This also requires considerable engagement from the private sector. Until now, the basis for this engagement has mainly been awareness, moral ambition, and local solidarity.

Overcoming
obstacles for
neighbourhood vitality

City climate
contracts

Dialogue in the Dark

Andreas Heinecke created and initiated Dialogue in the Dark and Dialogue in Silence, museum experiences where visitors are guided in absolute darkness by blind guides or in silence by deaf guides, allowing them to experience what it is like to be blind or deaf. First realised in 2000, there are now locations in 180 cities across 48 countries and 5 continents, with around 7 million people worldwide having visited. The organisation has around 12,000 employees globally, including approximately 8,000 disabled people. With a sustainable business model, it is independently financed but supported by real estate parties through very low social rental prices of €6.50 to €10 per m2. Local governments guarantee the rent when there aren't enough visitors to pay the rent. The CSRD provides potential new opportunities for real estate owners to collaborate with comparable social initiatives that demonstrably generate social impact on a more socially-oriented basis.

Through the ESG/CSRD reporting obligation, the contribution of companies becomes visible and measurable, and appreciation and validation can thus arise for such involvement.

Strategic supplier management can be used as an instrument to form partnerships with private parties that contribute to the continuation of municipal processes and their social and sustainable goals. A partnership develops from a supplier relationship into a qualitative collaborative relationship in this way. The involvement in each other's goals and values makes 'customisation without customisation' possible. This means that implementation and deployment of ambitions can be achieved in a targeted and efficient manner.

Through the connectedness of the parties involved with the municipality, the possibility also arises to address a societal issue in its entirety. Organisationally, this means that different directorates and departments work together in an 'all-hands-on-deck' approach. The situation that arises is somewhat reminiscent of a professional breeding ground for the ESG market and partnerships within it. The common goal pursued is threefold:

- 1) jointly finding an appropriate and efficient approach to the societal issue,
- 2) enabling all those involved (public/private organisations) to deploy their qualities, and
- 3) creating space for development and innovation for the benefit of the societal issue and the benefit of all those involved.

The societal issue thus becomes a fertile ground for working out innovations, exploring collaborative relationships, knowledge development, testing a new approach, and creating joint impact. In such a collaboration, the municipality may position itself alternately on the supply and demand side of the ESG market. The mindset in this form of collaboration must be a combination of 'How are we going to solve the issue?', 'How is the citizen being helped by this?', 'How are we going to solve legal and business issues and make this organisationally possible?'. The inward and outward perspectives complement

Joint goals
between sectors

Solving issues

each other, resulting in the premise of shared values, goals, and ambitions of the municipality and strategic partnerships, which motivates them to look after each other's interests. Thus, the CSRD may provide new opportunities to form new coalitions around social and sustainable challenges.

Climate Budget

In Amsterdam, an exercise is being done to create a climate budget. This is a collaboration between the Sustainable Future transition team and the financial department. The aim is to make sustainability goals an integral part of the city's planning and control cycle, so that in all decisions Amsterdam makes, not only the policy objectives and financial costs are taken into account, but also the sustainability impact. This multi-year trajectory should lead, among other things, to the new council being able to work with a methodology after the elections in March 2026 to use climate factors such as CO₂ as frameworks. For example, by imposing a CO₂ budget on budget programmes (and lowering this annually), within which the activities of the programme must remain. On the one hand, there is a political sensitivity here, as this may influence the feasibility of certain political programmes and choices. On the other hand, this is comparable to the ESG/CSRD reporting obligation for companies, for whom the social and sustainable impact of their choices will also play a more important role in addition to the financial returns. The CSRD may provide opportunities to align the way the municipality measures and uses climate factors as budgets with the method used by players in the market. After all, the emissions within the municipality are determined in a value chain in which the municipality and other parties active in the city jointly influence the emissions of CO₂ and other climate factors.

How to make it work?

When companies decide they want to achieve social impact, they often don't know what to do. How and where can a social investment lead to a demonstrable good result? On the one hand, there is a need to know what to do. On the other hand, one also wants to generate evidence that social impact has been achieved and can be valued. And how can people from very different worlds communicate with each other? How do they reach agreements, and how can these be monitored and certified?

Based on a versatile exploration, the ideation team has proposed the functioning of an ESG Impact Hub. The following chapter outlines how an ESG Impact Hub and its CitiesDAO could function.

Include climate factors
as budgeting element
in cities planning

Bridging worlds
through certificates
for social good

Conclusions ESG Exploration 2023

Private sector

For the business community, the exploration shows that the ESG/CSRD presents both robust challenges and unique opportunities. ESG/CSRD is already having a huge impact today.

- Impact data play a crucial role in the evidence base around ESG reporting.
- Many data providers are anticipating this new need for data and evidence. For example, Microsoft and Mastercard are accelerating their engagement with impact data and call this new need for impact data a game changer.
- Multinationals and large companies focus on environmental targets in the first place.
- Large companies that participated in the 2023 Amsterdam exploration indicate that shaping their social impact is more complicated for them to realize than their environmental impact. Yet when they manage to do so, it is also inspiring for employees and others involved. Whilst also significantly de-risking their investments in social impact initiatives.
- It is expected that companies with good CSRD/ESG reporting will attract more and better talent. For new generations, environmental and social impact are of great importance.
- Lawyers indicate there must be a causal relationship between a company's operations and the social and environmental impact they report. This means that companies based or operating in a city or region must also be able to demonstrate their social impact on that city or region.
- In housing and neighborhood developments, property developers and real estate investors see opportunities to achieve greater impact as part of the CSRD. Social and cultural investments offer a way to increase the attractiveness and social vitality of buildings, thereby generating both sustainable returns and social impact
- The major accounting firms and consultancies have a highly significant role in the implementation and execution of the ESG/CSRD. They are training many specialists at this time. It is difficult for auditors to judge the social impact of companies on their environment. A KPMG presentation indicated that a collaboration with the city on certifying Social Impact would be beneficial to them.

For the civic sector, social and cultural Initiatives

For social and cultural initiatives it appears that CSRD/ESG can provide a new form of reinforcement and support.

- Communities in neighbourhoods need many kinds of reinforcement and support of a different kind: People to help, train, teach, translate and mediate. In addition, facilities are often needed from shelter, chairs and tables and, for example, a communal bio-digester that helps promote sustainable awareness and community spirit in a neighbourhood, to instruments for music lessons.

<http://openresearch.amsterdam/en/page/96894/esg-environmental-social-governance>

- Research by EU project Edible Cities, led by Humboldt University Berlin, shows that communities of residents who carry out activities together in a neighborhood find it difficult to shape such initiatives in a sustainable permanent way. Either the community develops into a 'social entrepreneur', receives structural support from the local government, or the community disappears over time. ESG/CSRD can play a role of significance here.
- The social impact of these communities comes from doing activities that catalyse shared learning and change relationships between people.
- For many social and cultural initiatives, it is currently not easy to relate to private entities. The CSRD/ESG offers new opportunities to link the sustainable and social ambitions of entrepreneurs and neighbourhood initiatives more closely. The municipality can play an important mediating role in this.

For the Municipality of Amsterdam

For the City of Amsterdam, the exploration shows that there is a lot of experience with collaboration with the business community that can be built on. The possible role and involvement from within the organization is now fragmentary and often unprecedented. The exploration shows that there is a world to be gained here:

- The City of Amsterdam has more than 10 years of experience, especially with The Bureau of Social Return, in defining extra value in procurement policy. In large tenders by the city, a special contribution to the city is also designed together with a company and this is also laid down contractually. These are contracts with significant value which also carry penalties for non-performance.
- The City of Amsterdam has the tools, particularly in Economic Affairs, to know which companies are working on what and to shape a distribution and investment policy to shape the city's desired economy. With the focus on broad prosperity, many social entrepreneurs have come into the picture and are gaining more appreciation in this new landscape.
- For Area Development, CSRD/ESG offers great opportunities. It involves large assignments over long periods of time that also allow social investment to take shape. Area development also often involves long-term projects in which ecological and social impact are interrelated).
- Cooperation with the municipality is necessary to properly direct social impact. The Johan Cruijff Arena, for example, which has had an explicit sustainability strategy for 10 years, has now prepared a first CSRD/ESG report together with KPMG This report shows that internally they meet all standards in both the ecological and the social factors of the ESRD. All tons of CO₂ have been calculated. All employer measures evaluated. Only the external social impact has not yet been structurally designed. For this they would like to cooperate with the city.
- The CSRD may offer new starting points for making the social and sustainable impact of companies. Companies' commitment to make themselves more sustainable, in the context of an assignment, now plays a more substantial role in their selection processes.
- The CSRD/ESG exploration generated a great deal of energy at various departments of the municipality.

Mara D. Overbeck Sandrasekaram
UrbanVolution, Urban Innovation Company

Berlin

From old wisdom to real-time solutions

In the realm of political discourse, the imperative of local social impact necessitates the fortification of a resilient ecosystem. With each city and municipality assuming a pivotal role in this transformative process, there arises an exigent demand to harmonize economic interests with indigenous resources. Drawing from historical precedents predating industrialization and informed by contemporary experiences, the cornerstone of this endeavour lies in fostering cohesive communities and robust foundations involving all pertinent stakeholders. Effectively aligning divergent interests mandates the employment of personalized communication mechanisms. These may encompass a spectrum of strategies, ranging

from multifaceted workshops to meticulously crafted strategic documents, translated to accommodate linguistic diversity. Open forums serve as indispensable platforms for elucidating disparities in knowledge and addressing the unique requisites of each faction. At the heart of this collective endeavor lies a shared objective, a vision poised to engender success. Envision a metaphorical spiderweb wherein every stakeholder contributes their invaluable resources towards the common good. Such collaborative synergy not only amplifies the satisfaction and commitment of all involved parties but also precipitates triumph, thereby fostering individual avenues of prosperity.

From zero to Heroes together

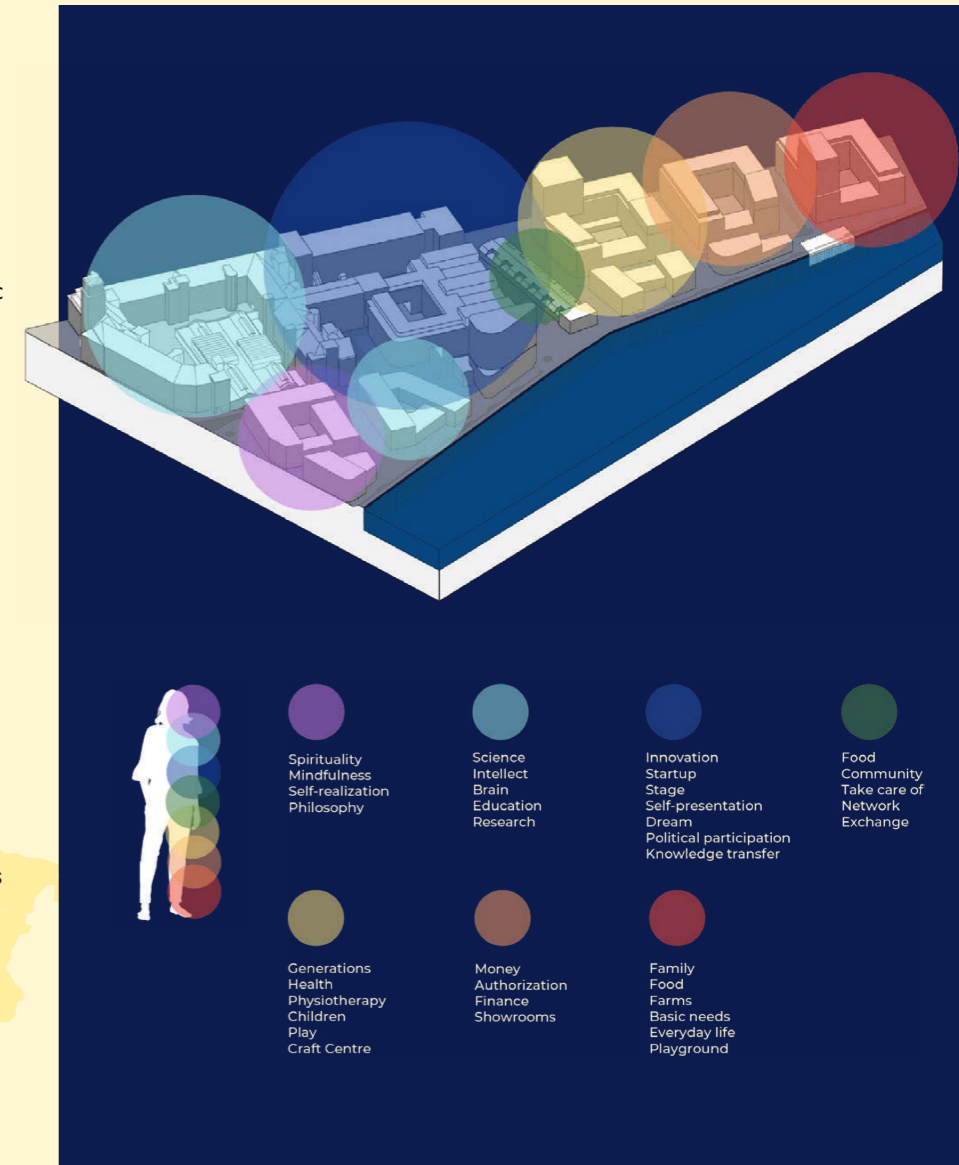
Consider this innovative approach from one of our clients, showcasing how ESG principles can be integrated to yield tangible

benefits for both the investors, developer and the community. By installing water turbines beneath their property to generate electricity, they made a substantial initial investment, involving also a cooperate big company, that proved to be recoupable and profitable within a decade. However, they didn't stop there. They pondered: How can we further enhance the local district? The solution: erecting additional turbines to sell electricity to the district at a reduced rate, eventually offering it for free after recouping their investment. But what about the residents? They decided to lower rents and allocate a portion to a social fund, exclusively used for community initiatives. This holistic approach not only benefited the bottom line but also fostered a sense of collective fulfilment—where financial gains were intertwined with social responsibility, creating a win-win scenario for all involved.

Plan B Behrens-Ufer

Our company embarked on a mission to align all stakeholders in a ground-breaking way. By integrating the ancient Indian chakra system as a framework for our client's property development, we ensured that alongside the Sustainable

Development Goals (SDGs), we addressed human needs on a deeper, more practical level. Through vibrant colours, thematic elements, and locally endorsed examples, we created a holistic approach that resonated with both residents and prospective commercial tenants. The concept of a health support system, rooted in nurturing individuals for improved life-work balance, garnered significant interest. We firmly believe that work and life are inseparable, and thus, our approach places humanity at the centre of our endeavours. This innovative strategy not only enhances the well-being of individuals but also fosters a more sustainable and harmonious community. We invite politicians and investors to support this progressive approach to development, one that prioritizes human-centric principles for a brighter future.



Andreas Toelke
social entrepreneur

Berlin

Restaurant Kreuzberger Himmel: Maximizing Economic Potential through Inclusive Entrepreneurship and Migrant Integration

Introduction: In the wake of the 2015 refugee crisis, Germany faced the challenge of integrating over 1 million refugees, prompting discussions about their economic impact and social inclusion. The numbers ever since did not drop significantly. Even attempts to build an EU fortress will not stop migration, as history proves. This study explores the transformative potential of social enterprises in harnessing the often underestimated economic power of migrants and refugees, while fostering social cohesion and economic resilience.

Background: Germany's response to the refugee influx underscored the need for innovative strategies to promote migrant integration and leverage their economic potential. Despite initial concerns, the continued presence of refugees presents an opportunity to reshape narratives surrounding migration and economic contribution.

The 'Kreuzberger Himmel' Restaurant

Established in January 2018, the 'Kreuzberger Himmel' restaurant embodies the principles of inclusive entrepreneurship, offering employment opportunities to refugees and migrants. Through its collaboration with Be an Angel e.V., the restaurant serves as a hub for economic empowerment and community engagement.

Key Initiatives and Achievements:

- **Economic Empowerment:**

By providing employment and training opportunities, the 'Kreuzberger Himmel' restaurant taps into the diverse skills and talents of refugees, contributing to local economies and challenging stereotypes about migrant productivity. Initiated with 80.000€ capital donated, the restaurant runs as a company, which finally supports Be an Angel e.V., which is a registered NGO solely financed from donations.

- **Community Resilience:** Amid the COVID-19 pandemic in 2022, the restaurant's initiative to prepare and deliver over 73,000 meals for homeless individuals demonstrated its role as a resilient community anchor. This underscores the economic and social benefits of inclusive business models in times of crisis.

- **Refugee Integration:** Through holistic support services, Be an Angel e.V., the initiator of Kreuzberger Himmel Restaurant has facilitated the integration of over 160 individuals into the workforce, with many pursuing further education and training opportunities. This comprehensive approach recognizes the economic contributions of refugees while addressing their diverse needs.



- **Economic Outlook:** The economic potential of migrant integration extends beyond individual enterprises, offering broader benefits to society. Initiatives like the 'Kreuzberger Himmel' exemplify the transformative power of inclusive entrepreneurship in driving economic growth, fostering innovation, and promoting social cohesion.

- **Expansion:** In response to the growing demand and recognition of its culinary excellence and social impact, Kreuzberger Himmel is embarking on a dynamic line extension strategy. This includes the development and distribution of gourmet products tailored for retail, catering to a wider audience beyond the restaurant's physical premises. Moreover, with the initiation of Himmel, a consulting and support program,

Kreuzberger Himmel aims to share its expertise by advising and guiding the establishment of four similar restaurants, amplifying its impact on a national scale. Additionally, Kreuzberger Himmel has established itself as a premier catering service, serving distinguished clients such as the Bundeskanzleramt on a regular basis, further solidifying its reputation for culinary excellence and social responsibility. These strategic endeavors signify Kreuzberger Himmel's commitment to expanding its reach, influence, and positive contribution to both the gastronomic and social landscapes.

- **Operational Highlights:** Kreuzberger Himmel proudly boasts an annual turnover of nearly €600,000, reflecting its popularity and success within Berlin's culinary landscape.

With a seating capacity accommodating 110 guests, the restaurant serves as a vibrant hub where diverse cultures converge. Kreuzberger Himmel Its staff, comprising individuals from various backgrounds, embodies the spirit of unity and hospitality that defines Kreuzberger Himmel's ethos.

Conclusion: The success of ventures like the 'Kreuzberger Himmel' restaurant highlights the untapped economic potential of migrant integration through social entrepreneurship. By embracing diversity and inclusivity, businesses and communities can unlock new pathways to prosperity and resilience. As societies reevaluate their approach to migrant integration, the economic outlook remains promising, with opportunities for inclusive economic development that benefits all members of society.

Caroline van Campen
Senior advisor Bureau Social Return Amsterdam

Amsterdam

City of Amsterdam, Bureau Social Return

Urban process social return

In Amsterdam, Bureau Social Return (BSR) is responsible for the organization and coordination of the urban process Social Return. Social Return is an integral part of the Corporate Social Responsibility policy of the city of Amsterdam and, in the context of unique tenders, aims at stimulating:

- Labor market participation of vulnerable groups (since 2008);
- Social procurement from recognized Amsterdam social enterprises that create social work and daycare activities (since 2014);

- Supporting community initiatives in Amsterdam neighborhoods with the greatest inequality in opportunities (since 2023).

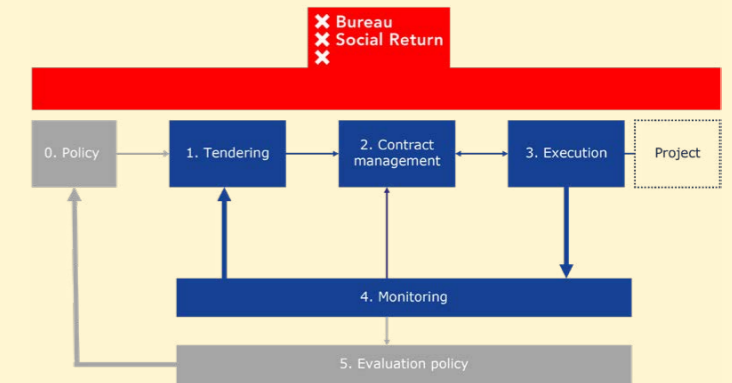
Tendering advice and social brokerage

BSR is not only an expertise center in the field of procurement and social tendering, but also a 'social broker'. BSR connects parties winning major tenders with the social challenges in Amsterdam. In doing so, we employ a wide range of possibilities, taking the strength, expertise, and resources of entrepreneurs and their enterprises as a starting point. BSR inspires

and encourages entrepreneurs to operate more socially and inclusively. We work closely with the Employer Service Point Greater Amsterdam (WSP), Vocational Training Company Pantar, the Social Work Collective Amsterdam, and other social organizations and companies that guide people towards employment or a better life.

Network organization

As a network organization with a national reach, BSR also provides advice upon request to other government institutions, non-profit organizations, and colleagues involved in the field of social procurement, social return, and inclusive entrepreneurship.



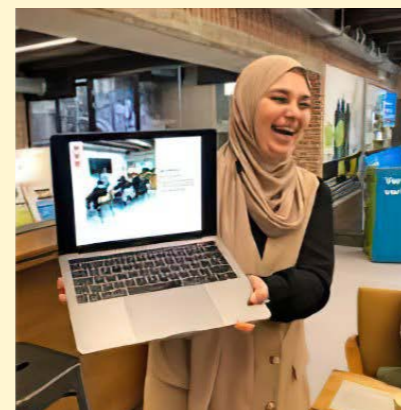
Cyclus tendering

Policy cyclus

We support various municipalities, ministries, and other public organizations in shaping and implementing their own social return policies. Together with contractors and other external stakeholders, we are happy to contribute to the development of a social business case. Furthermore, we appreciate to support the ESG Hub as well.

Data

As a team, BSR reflected on the results achieved in the year 2023, in which the municipal Social Return portfolio of 900 multi-year, long-term contracts generated €67 million in concrete social reinvestments by contractors of the City of Amsterdam. This resulted, among other things, in 2,900 realized, Social Return-declared (learning) workplaces with associated guidance and training costs, half of which were in Amsterdam itself. In addition, contractors actively contributed € 8 million to social procurement from recognized Amsterdam social enterprises and social development company Pantar, and € 5 million was invested in various societal initiatives and projects with a positive impact in Amsterdam. These are great results, achieved thanks to the committed contractors and (public-private) partners of the City of Amsterdam.



5 CitiesDAO, a demo

ESG hub

Caroline Nevejan⁴⁸

The ESG for Cities (ESG4C) concept assumes every city or region will need a so-called 'ESG Impact Hub', which orchestrates networks of companies on the one hand and networks of social and cultural initiatives on the other hand. The ESG Hub is fully aware of the local policy plans that are decided upon by local democratic bodies in cities and regions and is therefore capable of matching social and cultural initiatives with companies in specific collaborations to support the local policy plans. In certain cities, the City Science Officer can play a crucial role here. When collaborations are executed well, the companies receive testimonials of the city or region for their ESG rating, which they need to gain access to finance because of the new mandatory ESG/CSRD reporting tasks.

The ESG Hub orchestrates a process that leads to collaborations between the private, public and civic sectors. Animating networks of companies and networks of social and cultural initiatives, and gathering stories about what people like to do together, the ESG Hub assists in designing new collaborations that are beneficial to all involved. Once the collaboration starts, it is monitored by a digital platform that is hosted by the ESG hub and which offers a transparent report about the executed activities. This then leads to a testimonial of the ESG Hub that the company can use to send to their accountant for the required non-financial reporting they are required to do. Local policy plans or local initiatives receive support, companies receive a good ESG rating.

Cities and regions will install an ESG Hub in many different ways, just as we know that City Science Offices are organized in different ways. Be it in the Economic Affairs department, Urban Development units, the Social Department or the Procurement offices, the need to create a solid interface for companies and social and cultural initiatives is necessary when cities and regions want to play a role in these emerging new dynamics. Another option is that a commercial company will orchestrate these processes with and for cities. For example, the ESG Innovation Collective, which was foundational to this exploration, is gathering partnerships with the private sector to help create an interface to cities with and for them. In the ESG exploration in the fall of 2023, several larger companies and consultancies expressed discomfort with their requirements to report on Social Impact and supported the vision that a local ESG Hub would be very helpful for them.

⁴⁸ The ideation of the concept of CitiesDAO happened in different concept development phases:
 phase 1: Florian Wupperfeld, Caroline Nevejan, Alexei Novikov, Katya Letunovsky, Kannan Paul;
 phase 2: Matthew Gardiner, Florian Wupperfeld, Caroline Nevejan, Anna Jonkmans, Berci Florian;
 phase 3: Matthew Gardiner, Dorien Drees, Sergei Zhilin, Mark Worrell, Philipp Pieper, Caroline Nevejan.

The screenshot shows the CitiesDAO website interface. On the left is a dark purple navigation sidebar with the 'citiesDAO' logo and menu items for 'Amsterdam' and 'Amsterdam Zuid Oost', including 'Policy benchmark', 'Participants', 'Stories', 'Impact templates', 'Collaborations', 'Assessments', '7 Steps to a Cities DAO', 'Purpose', 'Constitution', 'Glossary', 'Graphics', 'Contact & Colofon', and 'Login'. The main content area is titled 'Social is Local' and contains a text block explaining the concept of creating more impact on the local level through participatory and transparent collaborations. To the right of this text is a circular diagram titled 'https://citiesdao.org' showing a cycle of 'Local policy' (Template, Constitution DAO), 'COLLABORATION AGREEMENT', 'Verification', and 'Data'. Below the text is a button for '7 Steps to a Cities DAO'. The 'Stories' section features three story cards: 'Livability' (Groene Hub), 'Public space' (Ruth Penuel Fresh), and 'Diversity' (EnergieLab Zuid Oost). At the bottom, there are logos for partner organizations: City of Thessaloniki, Gemeente Amsterdam, Glasgow City Council, CURAÇAO, and City of London.

This screenshot shows the 'Participants' section of the CitiesDAO website. It features a list of participating organizations, each with a logo, name, and a status indicator (Public or Civic). The list includes: Bureau Social Return (Public), Johan Crujff ArenA (Public), CoForce (Civic), Groene Hub (Civic), EnergieLab Zuid Oost (Public), Otrobanda (Civic), and Bank Z (Public). A 'Login' button is visible at the bottom left of the sidebar.

demo **citiesDAO**

Amsterdam ▼

Amsterdam Zuid Oost ▼

- Policy benchmark
- 👤 Participants
- 📖 Stories
- 📊 Impact templates
- 🔗 Collaborations
- 📋 Assessments

7 Steps to a Cities DAO

Purpose

Constitution

Glossary

Graphics

Contact & Colofon

👤 Login

Biodigester GroeneHub ZuidOost JC Arena

Johan Cruyff Arena 🌱 **Groene Hub**

Supports the benchmark "Masterplan Amsterdam Zuid Oost": 🟢

The Groene Hub co-manages the collection of biodegradable waste. Local food scraps are collected and with the help of residents, the municipality and a waste company. The Groene Hub ensures that biodegradable food scraps (green waste) from local residents are collected in the 20 cocoons placed throughout the neighbourhood. The green waste is then either composted or turned into green gas which is stored and used by the Johan Cruyff Arena.

Through the Groene Hub Newsletter the residents are kept abreast of how much green waste is assembled in each cocoon, and as an incentive the participants can pick up a bag of compost.

Visitors to the Johan Cruyff Arena are informed on how much green gas is used at the Arena and where it is sourced from.

Collaboration of

Johan Cruyff Arena
Waste No More for Circular Community
[Read story](#)

Groene Hub
Work together on collection of biodegradable waste to convert it to valuable...
[Read story](#)

Assessment process

How the project went

How participants felt

1. Data overview

In 6 voting rounds

Total: How is the project going? 1650

🟢 1340 🟡 185 🔴 125

Total: How do you feel? 1700

🟢 1290 🟡 275 🔴 135

2. Self evaluation: report is written

The people met and together reflected on what happened within the collaboration in relation to the local policy benchmark and the data.

3. Assessment: Has the collaboration been successful

4. Year report: send to accountant

5. Celebration: with all participants

6. Stories: generate new stories

demo **citiesDAO**

Amsterdam ▼

Amsterdam Zuid Oost ▼

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Stories

All stories
Click stories
Private stories
Public stories

Groene Hub
Crafts workshops - social cohesion by learning new skills together
[Read story](#)

Energiehub Zuid Oost
Sustainable renovation decision-making board game for VVE's by Marilou van der Vliugt
[Read story](#)

Groene Hub
Work together on collection of biodegradable waste to convert it to valuable energy or compost
[Read story](#)

Johan Cruyff Arena
Smart City School Initiative
[Read story](#)

Johan Cruyff Arena
Neighbourhood Energy Storage
[Read story](#)

Social enterprise V
Empowerment program for young people
[Read story](#)

Bank 2
Invest in drop-outs
[Read story](#)

Onkolanda
Revitalising Brederstraat Otrobanda
[Read story](#)

Bureau Social Return
Amsterdam Master Plans and social return
[Read story](#)

Energiehub Zuid Oost
Handbook of energy justice for energy cooperatives by Chia Yu Lin
[Read story](#)

Energiehub Zuid Oost
Energiehub Zuid Oost's manifesto (2023)
[Read story](#)

Energiehub Zuid Oost
Wijktransiehub K-buurt
[Read story](#)

Johan Cruyff Arena
Stadium on a Mission
[Read story](#)

Energiehub Zuid Oost
Visualization strategy tool and an empowering visual tool for multi-stakeholder projects by Kai Zhang
[Read story](#)

Energiehub Zuid Oost
Framework for a social and local relational energy ecosystem by Vicky Toellner
[Read story](#)

OSADVIJES
[Read story](#)

Energiehub Zuid Oost
BA Thesis - How the Quick-fix Brigade frames energy poverty in Amsterdam South East
[Read story](#)

Groene Hub
At the Groene Hub sustainability is more than having a Tesla parked in front of your house
[Read story](#)

Groene Hub
Brass gardens: come together, seek connect and heal
[Read story](#)

Groene Hub
Capturing personal stories and becoming a professional filmmaker
[Read story](#)

Groene Hub
Quick fixers counter energy poverty
[Read story](#)

Groene Hub
Practical instruments for inclusive policy-making Inclusive planning practices for Amsterdam's transition vision for heat
[Read story](#)

Waste No More For Circular Community
[Read story](#)

Entrepreneurs outside who threatened out of school
[Read story](#)

Private building sustainable businesses who threatened out of school
[Read story](#)

demo **citiesDAO**

Amsterdam ▼

Amsterdam Zuid Oost ▼

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👤 Login

Find your collaboration

Impact templates

Sector	Project	Benchmark	Category	Activity	Participants	Place	Time	
Green	Like, stretch, mobility for the neighbourhood	🟢	Yes/No	Material, Ecological	Kids, All residents	Neighbourhood	Permanent	More info
Green	Crafts workshops, social cohesion by learning new skills together	🟡	Yes/No	Learning, Ecological, Social, Material	All residents	Neighbourhood (city district)	Permanent	More info
Green	Recruitment, looking for students to research communication strategies for the SOX Game	🟢	Yes/No	Learning, Social, Ecological	All residents	Neighbourhood	Short term	More info
Green	Generating Tomorrow	🟢	Yes/No	Ecological	All residents	Neighbourhood	Permanent	More info
Green	Restoring Brederstraat Otrobanda	🟡	Yes/No	Activities, Social, Ecological, Learning	All residents	City district	Long term	More info
Green	Invest in drop-outs	🟢	Yes/No	Learning, Financial	Young adults	City district	Long term	More info
Green	Amsterdam Master Plans and social return	🟢	Yes/No	Learning, Social	Young adults	City district	Permanent	More info
Green	Centric personal stories and becoming a professional filmmaker	🟢	Yes/No	Learning, Social, Activities	Young adults	Neighbourhood	Permanent	More info
Green	Energy Challenge: take control over your energy consumption	🟢	Yes/No	Learning, Material, Ecological, Activities, Social, Administrative	All residents	Neighbourhood	Permanent, Long term, East	More info
Green	Energiehub Zuid Oost's manifesto (2023)	🟡	Yes/No	Learning, Social	Young adults	Neighbourhood	Long term	More info
Green	Handbook of energy justice for energy cooperatives by Chia Yu Lin	🟢	Yes/No	Economical, Ecological, Social, Activities	All residents	Neighbourhood (city district)	Permanent	More info
Green	Insights in multiple facets of energy poverty in Amsterdam, by Kai Zhang, Vicky Toellner, OSUR	🟢	Yes/No	Learning	All residents	Neighbourhood	Short term	More info
Green	Brass gardens: come together, seek connect and heal	🟢	Yes/No	Ecological, Learning	All residents	City district	Permanent	More info
Green	Living Lab: District Economy	🟢	Yes/No	Learning, Activities, Ecological, Social	All residents, Young adults, Kids	Neighbourhood	Permanent	More info
Green	Work together on collection of biodegradable waste to convert it to valuable energy or compost	🟡	Yes/No	Education	All residents, Kids	Neighbourhood	Permanent, East	More info
Green	Practical instruments for inclusive policy-making Inclusive planning practices for Amsterdam's transition vision for heat	🟢	Yes/No	Social, Ecological, Economical, Learning	All residents	Neighbourhood	Short term	More info
Green	Sustainable renovation decision-making board game for VVE's by Marilou van der Vliugt	🟢	Yes/No	Learning, Ecological, Economical, Social, Activities	All residents	City district, Neighbourhood	Short term	More info
Green	Visualization strategy tool and an empowering visual tool for multi-stakeholder projects by Kai Zhang	🟢	Yes/No	Activities, Social, Material	All residents	Neighbourhood (city district)	Permanent	More info
Green	Framework for a social and local relational energy ecosystem by Vicky Toellner	🟡	Yes/No	Safety, Economical, Financial	Young adults	City district	Short term	More info
Green	BA Thesis - How the Quick-fix Brigade frames energy poverty in Amsterdam South East	🟢	Yes/No	Learning, Activities	Elderly	City district	Long term	More info
Green	Wijktransiehub K-buurt	🟡	Yes/No	Activities, Administrative	Young adults	City district	East	More info
Green	What is the level of satisfaction of vulnerable residents in the urban planning and policy making of just energy transitions by Katerina Boukatsou	🟢	Yes/No	Learning, Ecological, Social	All residents	Neighbourhood (city district)	Short term	More info
Green	Sustainable smart city water	🟢	Yes/No	Material	All residents	City district	Long term	More info
Green	Biodigester GroeneHub ZuidOost JC Arena	🟢	Yes/No	Ecological, Social	All residents	City district	Permanent	More info
Green	Empowerment program for young people	🟢	Yes/No	Learning, Social	Young adults	City district	Long term	More info
Green	Waste No More For Circular Community	🟡	Yes/No	Social, Ecological	All residents	Neighbourhood	Permanent	More info
Green	Entrepreneurs outside who threatened out of school	🟢	Yes/No	Learning, Activities, Social	Young adults	Neighbourhood	Long term	More info
Green	Private building sustainable businesses who threatened out of school	🟡	Yes/No	Ecological, Activities	All residents	City district, City district	Long term	More info

citiesDAO
Amsterdam

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login

Biodigester GroeneHub ZuidOost JC Arena

Collaboration of **Johan Cruyff Arena** & **Groene Hub**

Supports the benchmark "Masterplan Amsterdam Zuid Oost"

The Groene Hub co-manages the collection of biodegradable waste. Local food scraps are collected and with the help of residents, the municipality and a waste company. The Groene Hub ensures that biodegradable food scraps (green waste) from local residents are collected in the 20 cocoons placed throughout the neighbourhood. The green waste is then either composted or turned into green gas which is stored and used by the Johan Cruyff Arena.

Through the Groene Hub Newsletter the residents are kept abreast of how much green waste is assembled in each cocoon, and as an incentive the participants can pick up a bag of compost.

Visitors to the Johan Cruyff Arena are informed on how much green gas is used at the Arena and where it is sourced from.

Collaboration agreement; what will you do?

Category	Activity	Participants	Place	Time
Public open	Ecological, Social	All residents	My street	Permanent

Input
What will participants do?
Through the Groene Hub Newsletter the residents are kept abreast of how much green waste is assembled in each cocoon, and as an incentive the participants can pick up a bag of compost.
Visitors to the Johan Cruyff Arena are informed on how much green gas is used at the Arena and where it is sourced from.

Output
What will happen?
The Groene Hub, local residents and the JC Cruyff Arena will collectively incentivise the collection and conversion of biodegradable waste to green gas.

Outcome
What will change?
If the Groene Hub, local residents and the JC Cruyff Arena increase the amount green gas produced. Local residents and the Groene Hub will receive increased revenues from the sale of the green gas to the JC Cruyff Arena. Whilst the Arena will reduce its energy costs and carbon emissions, in line with its stated long term objectives & the ZuidOost's Masterplan's aims to reduce carbon emissions across the ZuidOost.

Impact
What will be benefit?
Groene Hub, local residents and the JC Cruyff Arena will learn how to optimise the production, storage and use of green gas from biodegradable food scraps, including learning from successful and failed patterns throughout the year. They may also learn how to increase community - Arena engagement from their joint interactions around the biodigester.

Read the Constitution | Attested data | [data-0x1e39b0c0b0c781ae2388a1d773f793ad](#)

Who gets to decide how it's going?

Collaboration community

Who gets to vote: ZuidOost Residents, Groene Hub & JohanCruyff Arena

How often: Every month

Collaboration progress

Voting rounds & updates from the participants.

How the project is going

How participants are feeling

Date	Votes	Update
01-03-2024	Voting didn't start yet.	Many of the 65 graduates of the group. At the celebration also several
01-12-2023	<p>How is it going? 👍 60 🟡 25 🚫 15</p> <p>How do you feel? 👍 65 🟡 20 🚫 15</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	Happy to see that our intervention is working. More youngsters are
01-09-2023	<p>How is it going? 👍 60 🟡 30 🚫 20</p> <p>How do you feel? 👍 50 🟡 20 🚫 30</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	We are losing students, already. The 50 students who enjoy art and try to change the trend
01-06-2024	<p>How is it going? 👍 310 🟡 20 🚫 10</p> <p>How do you feel? 👍 290 🟡 35 🚫 25</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	For some students the program was great
01-05-2023	<p>How is it going? 👍 300 🟡 40 🚫 10</p> <p>How do you feel? 👍 300 🟡 25 🚫 25</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	The start of the new program was great
01-04-2024	<p>How is it going? 👍 250 🟡 30 🚫 20</p> <p>How do you feel? 👍 200 🟡 120 🚫 30</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	
01-03-2024	<p>How is it going? 👍 120 🟡 50 🚫 80</p> <p>How do you feel? 👍 150 🟡 60 🚫 50</p> <p>Pictures </p> <p>demo-0x1e39b0c0b0c781ae2388a1d773f793ad demo-1nfs-0x1e39b0c0b0c781ae2388a1d773f793ad Attested data</p>	

Public	Sustainable renovation decision-making board game for VVE's by Marilou van der Vlugt	👍	Diversity	Learning, Ecological, Economical, Social, Activities	All residents	My street, Neighbourhood	Short term	More info
Public	Visualization strategy tool and an empowering visual tool for multi-stakeholder projects by Kai Zhang	👍	Livability	Activities, Social, Material	All residents	Neighbourhood, My district	Permanent	More info
Public	Framework for a social and local relational energy ecosystem by Vicky Toelner	🟡	Safety	Economical, Financial	Young adults	My district	Short term	More info
Public	BA Thesis - How the Quick-fix Brigade frames energy poverty in Amsterdam South East	👍	Education	Learning, Activities	Elderly	My street	Long term	More info
Public	Wijktransitiehuis K-buurt	🟡	Education	Activities, Administrative	Young adults	My district	Event	More info
Public	What is the level of participation of vulnerable residents in the urban planning and policy-making of just energy transitions? by Konstantina Karalidou	👍	Livability	Learning, Ecological, Social	All residents	Neighbourhood, My street	Short term	More info
	Sustainable smart city games	👍	Education	Material	All residents	My district	Long term	More info
	Biodigester GroeneHub ZuidOost JC Arena	👍	Public space	Ecological, Social	All residents	My street	Permanent	More info
Civic	Empowerment program for young people	👍	Diversity	Learning, Social	Young adults	My district	Long term	More info
Private	Waste No More for Circular Community	🟡	Livability	Social, Ecological	All residents	Neighbourhood	Permanent	More info
	Empowering people who dropped out of school	👍	Education	Learning, Activities, Social	Young adults	Neighbourhood	Long term	More info
	Private: Building sustainable businesses shopping district of Qtrobanda	🚫	Education	Financial, Activities, Learning	All residents	My district, My street	Long term	More info
Private	Neighbourhood Energy Storage	👍	Livability	Material	All residents	My district	Long term	More info
Private	Smart City School Initiative	🟡	Youth	Learning	Kids	My district	Long term	More info
Private	Education4Good	👍	Youth	Learning	Kids, Young adults	Out of my district	Event	More info

Local policy benchmark

An important goal of an ESG Hub is to check adherence of collaborations to the local policies. We call it a 'local policy benchmark' because cities want to evaluate how initiatives would contribute to the overall development vision of a city or region.

Climate change is as much a social issue as it is an engineering or scientific issue as is argued in chapter 2. The ESG4C concept assumes that cities and regions are specialists on the S of Social Impact in ESG. Many companies gather global climate data that can be used by companies to report on their ecological footprint. Social Impact, however, is local. For companies, it is hard to navigate local social impact, while a city council, for example, is used to prioritize and decide on complex social issues. Local democratic bodies like city councils, water boards and provincial offices weight very different interests all the time. For example, will an orchestra receive support or a sports club for children with special needs? Also, next to 4-year term political agendas of politicians, city regions have longer-term policy plans which resonate with long-term visions and ambitions of the institutional investors. Many long-term investors have embraced ESG/CSRD and require banks and large companies to adhere to their vision. Often these visions are abstract and need the concreteness that local policy plans can offer. Here a new alliance between institutional investors and local democratic bodies may emerge as a result of the ESG/CSRD framework.

Aligning stories in a semantic web

The ESG Hub creates a Dynamic Distributed Portfolio of stories written by the many cultural and social initiatives in the city/region. This portfolio is online, so different boroughs in a city or areas in a region can upload at their convenience. As a result, companies that need to make a social impact, can come to the ESG Hub to find stories they like to align with.

Companies also write stories about the values they cherish and the things they do or do not like to do. As a result, cultural and social initiatives in need of support can come to the ESG Hub to find stories of companies they like to align with.

Stories can be text, audio and/or visual narratives that show the atmosphere, values and character, of the initiative or the company that seek collaboration. All the stories are gathered in a semantic web where they are labelled with keywords on themes and types. It is also indicated how a story relates to the local policy plans.

Creating impact templates

Every story is then translated into a template in which different elements are formulated in a structural way. The template is a document that answers such questions as 'What are the inputs, output, outcome, and impact of the collaboration?', 'Who are the collaborators?', 'What is the geographical area for collaboration?'. Templates are based on scientific frameworks YUTPA and the Theory of Change.⁴⁹ The doing of activities is labelled as input. If the choice is to invest in a sports club, the input is that children with special

needs play sports. The output is that so many children engaged a number of times with playing sports. Output are the things that directly happen as a result of the input. Changes in patterns of time and place, are formulated as 'outcome'. Because there is a sports field and children can engage in sports, their weekly rhythms change, and their physical condition and ways of moving change. These are outcomes. Impact reflects larger and longer term effects in which also values can be recognized. Templates are required to be specific about who is doing what, where, and when and for how long.⁵⁰ Expected results are formulated as input, output, outcome and impact.⁵¹

In the exploration in the fall of 2023, different civic initiatives participated. Interestingly a new definition of social impact emerged in these presentations. Social Impact was described in terms of 'a shared learning that took place'. In the example here above social impact emerges as the shared learning that happens between the children, the caretakers, the sports club. As a result of the fact that the children now play sports, new engagements and new relations emerge and shared learning takes place.⁵² Quality of learning needs processes of assessment which is why next to data gathering, an assessment as a reflection on the learning processes needs to be part of the collaboration.

In the ESG Hub, different mentors match and coach the new collaborations. Collaborators now meet in real life. Because the ESG Hub orchestrates the networks of companies and networks of social and cultural initiatives, it is capable of assisting in a precise and granular way in the matching process between companies and social and cultural initiatives. When establishing a collaboration between two different stories, between a company and a specific initiative, out of the two-story templates a new template for the collaboration is created. This template also includes details about who is participating in the project and who will be capable of judging if the project goes well. The ESG hub guides the matching process in which the private, the civic and the public sectors will collaborate. In chapter 2 these collaborations were formulated as Urban Sustainable Development and Innovation Partnerships (USDIP's). Such USDIP's can also be made on a regional level of course. The ESG Hub makes sure all requirements are met for a good and transparent collaboration that can lead to a good ESG rating

Social impact as shared learning

Orchestrating collaboration

⁴⁹ YUTPA is an acronym for 'being with You in Unity of Time, Place and Action'. YUTPA is a framework developed by prof. dr. Caroline Nevejan for design of trust, which she defines as 'time and space configuration in which one meets with others in action'. Theory of Change (ToC) – ToC of a project describes why change is needed and how it will happen. In simple terms, this involves identifying how you would like the current situation related to an identified problem to change, and how you think you can help that change to come about through your project. Components of the ToC are input, output, outcome, and impact. Inputs are resources invested in a project. Outputs are the tangible or intangible entities that a project produces. Outcomes are the short to medium effects which need to occur in order to achieve a long-term or ultimate goal. Impact is a long-term goal or ultimate objective.

⁵⁰ Following the YUTPA framework for trade-offs of trust: Nevejan C. 2023. Shaping Trust, essay. City of Amsterdam <https://openresearch.amsterdam/en/page/95507/shaping-trust-essay> (accessed 6 March 2024).

⁵¹ Reinholz, D. L., & Andrews, T. C. (2020). Change theory and theory of change: what's the difference anyway? *International Journal of STEMEducation*, 7(1), 1-12.

⁵² References were made to the Inner Development Goals, developed by Otto Schram MIT Scharmer, C. O., & Kaufer, K. (2013). *Leading from the emerging future: From ego-system to eco-system economies*. Berrett-Koehler Publishers.

for the company and a fulfilment of a need for the community. Through a matchmaking process facilitated by an ESG Hub, organizations can find common ground and forge collaboration agreements aimed at achieving ESG goals. Agreements consist of three elements: local policy benchmark, a collaboration template and a DAO constitution in which is defined who gets to vote on what and when.

Monitoring collaboration

Next to good output, outcome and impact, an established collaboration needs to be monitored because a company’s accountant requires proof of participation in the collaboration. To understand possible new dynamics in the exploration of ESG4C, Amsterdam’s innovation department developed the so-called CitiesDAO. DAO, stands for Decentralized Autonomous Organization (DAO). DAOs are member-owned communities run by decentralized computer programs, with voting and finances handled through blockchain technology. This technology makes information unchangeable and offers transparency to all involved.⁵³ This is a new phenomenon to participation projects which previously relied on minutes of their meetings and other documentation for transparency. Introducing this unchangeable information based on votes by participants, may offer new transparency in the trajectory of a relation and contribute to trust between partners. In the CitiesDAO, only the transparent voting system of the DAO is used, not the financial or tokenization layers it can also facilitate. The blockchain technology enables all partners involved, final assessment and new narratives including the accountant at the end of the trajectory, to check directly on the blockchain to see what happened at each stage of approval.

Community of voters

In the CitiesDAO all collaborators constitute a ‘community of voters’ that will monitor the progress of the collaboration they are engaged with. Monitoring happens regularly and within a specific time frame (for instance once in 3 months, once week or daily). Collaborators perform monitoring via their mobile phones (for instance, a special app, or in a browser). They should answer a couple of simple questions, for instance, “How do you feel about the project’s progress? (good/okay/bad)”, and “Did the project move further? (yes / a bit /no)”. Apart from questions, they can attach photos that demonstrate the progress. All parameters of voting and the monitoring are defined in what is called the ‘Constitution’ in the blockchain world. The Constitution defines the governance of a DAO. The constitution defines who gets to vote on what, with which frequency and duration of monitoring, minimum per cent of voters required, questions, and requirements of photo attachments.

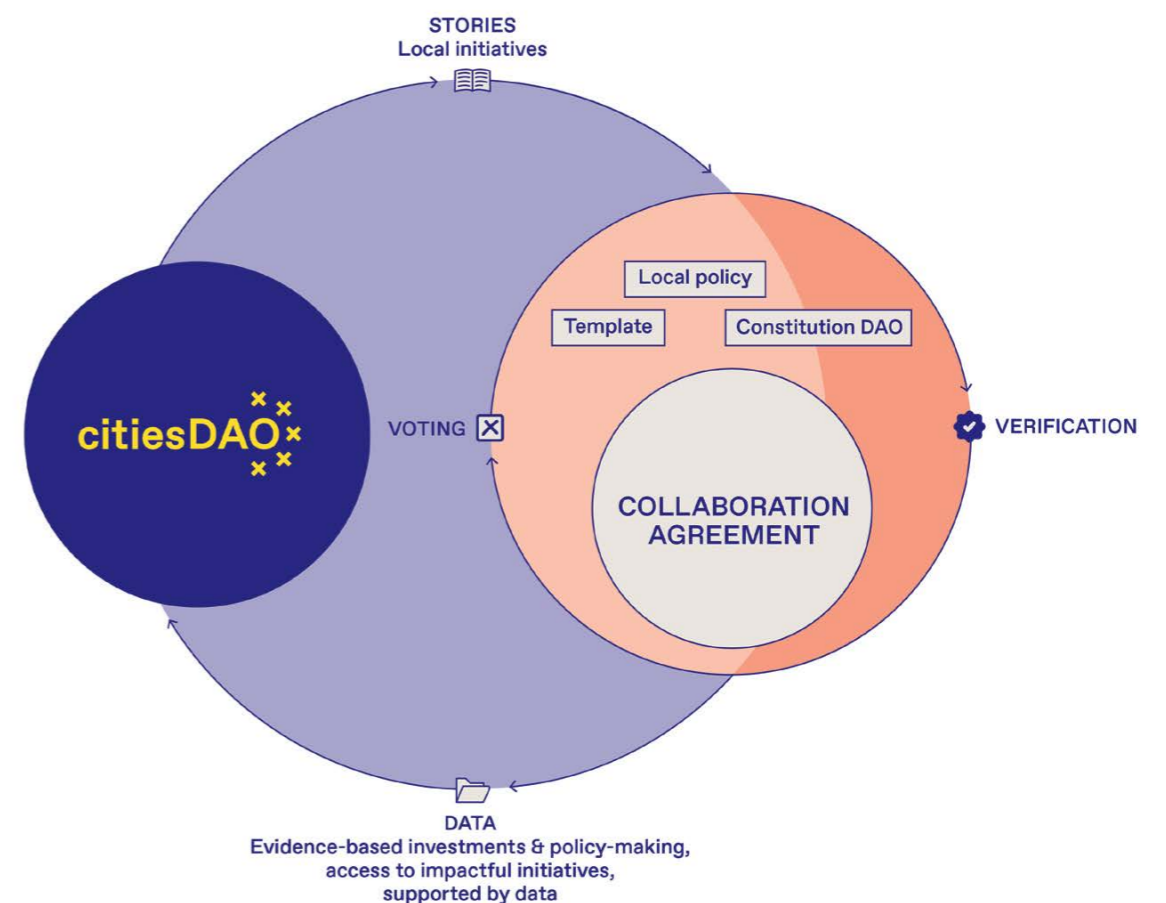
Final assessment and new narratives

When the collaboration is complete, the ‘win-win-win’ is achieved: the city benefits from sustainable solutions, socio-cultural initiatives receive much-needed support, and private companies earn the ESG certificate, enhancing

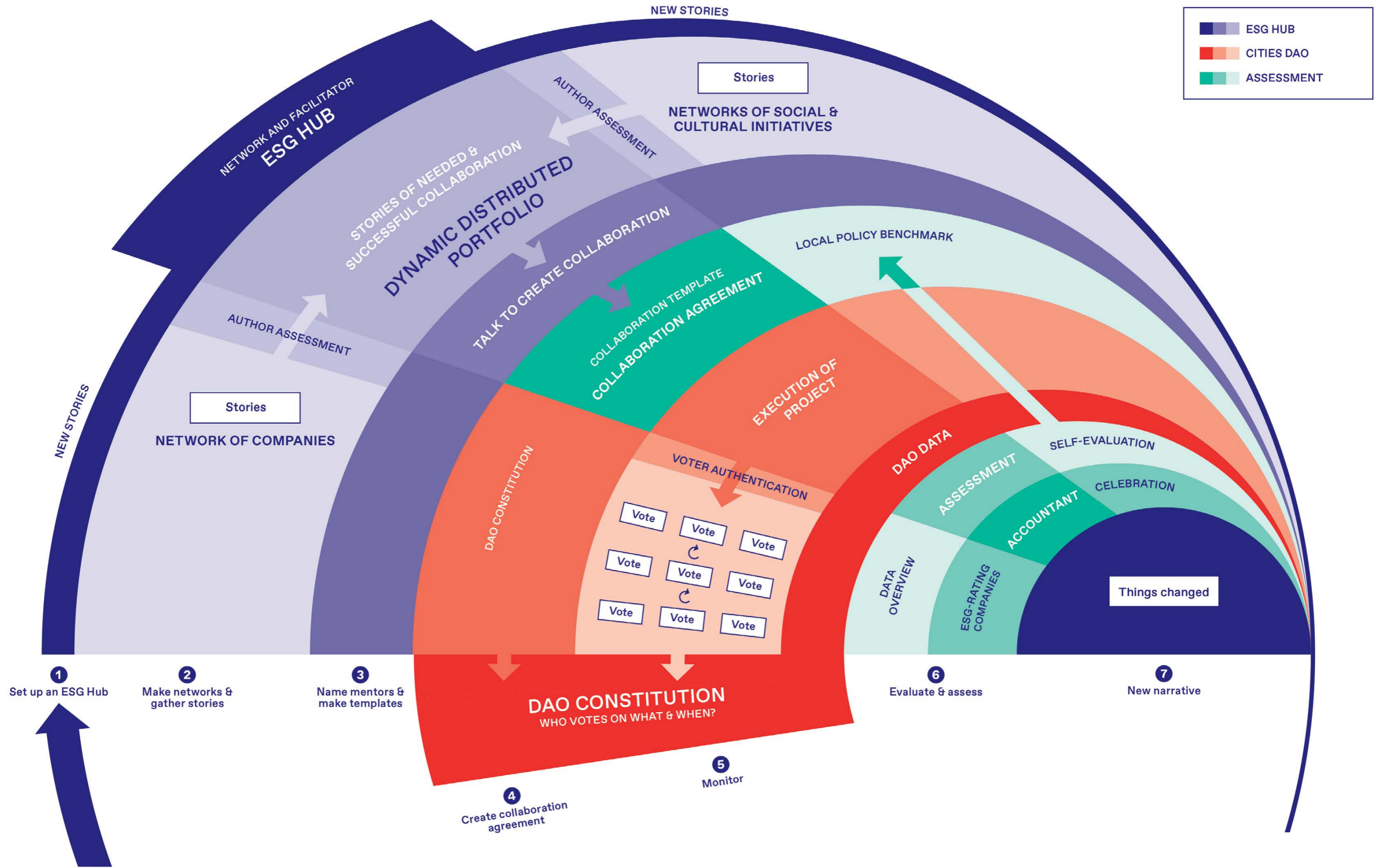
their market position and credibility. All the data points collected during collaboration, such as photos of monitoring and external evaluation, compile a narrative of a complete collaboration. When the project is nearly completed, participants decide on which external evaluators they like to discuss their results with. This is a conversation between peers based on a self-evaluation of experiences, the gathered data on the platform and the contribution to the local policy benchmark. As a result, a final report is written that is approved by the ESG HUB and can be handed to the company’s accountant for their ESG/CSRD rating. The accountant can check the monitoring system directly on the blockchain. The report tells the story of the collaboration and forms in itself a new narrative upon which new collaborations can be built.

From a local perspective, the reporting on the E and the S and the G are deeply interrelated. The need for a transition towards a circular economy is embraced by the private, public and civic sectors even though no one knows how to do such a transition in swift, effective and efficient ways. Collaboration and shared learning is a beneficial way to deal with uncertainty and unpredictability. The new reporting requirements that ESG/CSRD demand trigger the telling of stories, collaborations, evaluations and reflections on what is good to do. As such the new reporting frameworks change relations and stimulate a shared learning to happen. Such shared learning we need.

Shared learning



53 See Wikipedia: Decentralized autonomous organization – Wikipedia



Katya Letunovsky
CEO Habidatum

Podgorica

Green roofs

Podgorica, the capital of Montenegro, is the political, administrative, cultural, economic, scientific, educational and sports center of the state, located in the central part of the country and covers an area of 1,441 km² which makes 10,43% of the state territory. The population of Podgorica is over one-third of the total population of Montenegro, and the current number is estimated to be over 250.000.

Being the main center of population concentration and growth, with often rapid urbanization, cities are recognized as particularly vulnerable in the context of climate

change. Analysis of extreme weather events (heat waves, droughts, heavy rains/floods, storms, extreme cold) recorded in the period from 2003 to 2013, conducted to develop the Climate Changes Adaptation Strategy, proved Podgorica's vulnerability. In this regard, it is of particular significance that Podgorica became a member of EU Mission 100 climate-neutral and smart cities by 2030, which represents a framework for strengthening its capacities, developing and implementing relevant activities and establishing and strengthening cooperation on all levels, from local to national, in the field of climate changes.

Having in mind challenges in combating climate change, intensification of international cooperation, cooperation with the scientific community and national authorities, but also dialogue with the private sector are among the main presumptions for achieving goals set by the mentioned documents and membership in the Mission, in terms of joint defining and implementing innovative solutions.

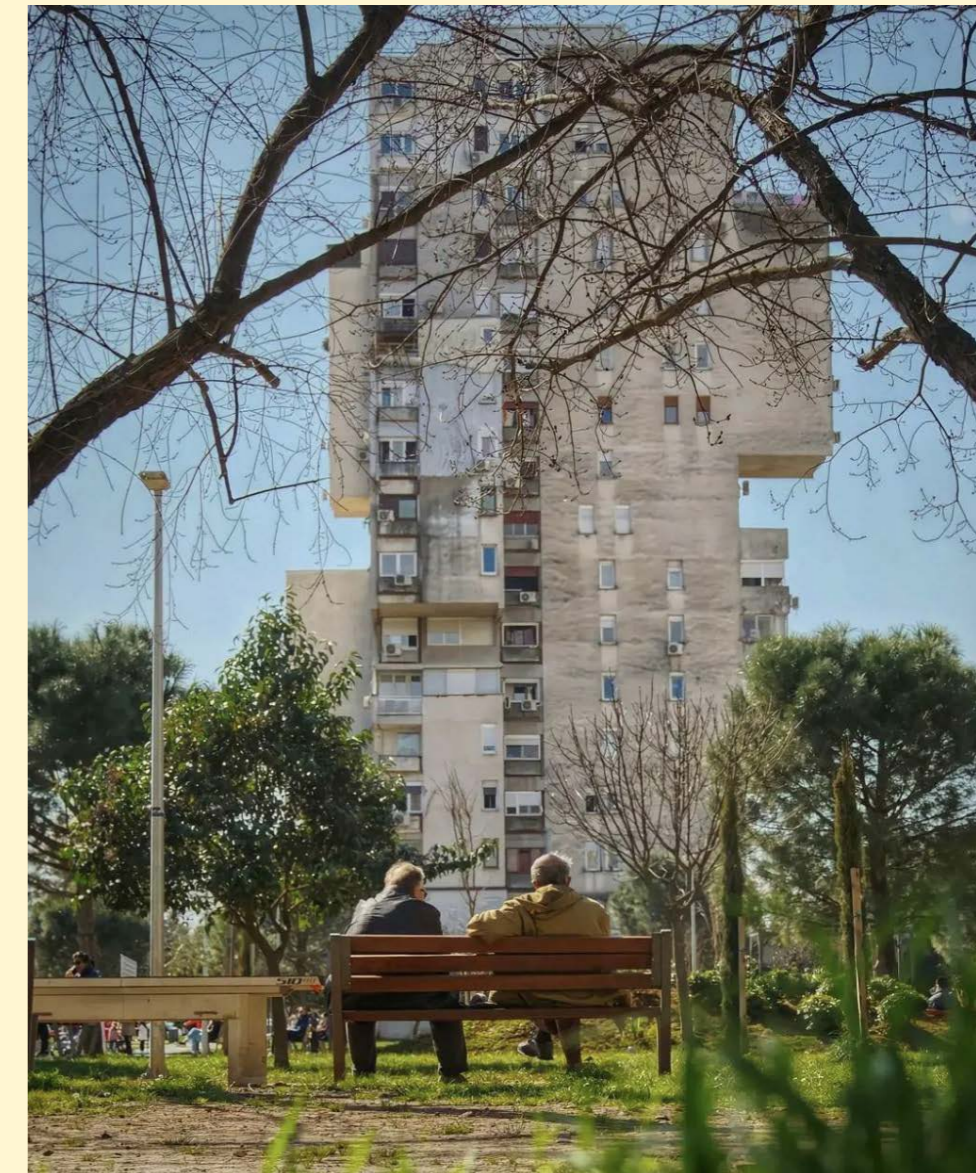
Pilot project: 'Green roofs'. The Climate Changes Adaptation Strategy of Capital City Podgorica envisages the greening of the flat roofs in the urban area of Podgorica as one of the efficient climate change mitigation measures. Regional and global experiences prove that green roofs provide multiple benefits, in terms of reducing the temperature of the buildings, improving the micro-climate around the building and the air quality, expanding urban green areas, reducing energy consumption, and noise reduction, and also contributing to social interaction.

The topic connects the environmental and social aspects of sustainable development. Social surveys prove that the initiative is desired by the local community, besides it's forming new urban centralities and improving air quality and the green landscape of the city. The pilot project can be implemented with public and

residential buildings involved: Kulturno – Informativni Centar 'Budo Tomović' – a cultural centre of city-scale importance located in the downtown, where the city already has inputs for implementation of the green roofs and a residential building to be selected and analyzed by the University partner team. The University collaboration will also help with socialising the solution and reaching an agreement with the local community – possibly, having several customized urban roof garden options based on the desires of local dwellers. This will be the first case of implementing such in Montenegro.

Collaboration: The academic partner in this project is The University of Montenegro, the only state university in the country, through its Faculty of Architecture, a recently created educational practice, running studies¹ with students and PhD focused on vernacular local architecture, its innovation and rehabilitation, as well as local community and neighbourhood development, climate resilience and energy efficiency. Telecom companies having cell phone towers on the roof could be the private sector partner co-financing the activity. Collaboration with a telecom company could also ensure access to data on people's dwell time and visits to the roof.

Our main goal is to reach a combination of social and environmental

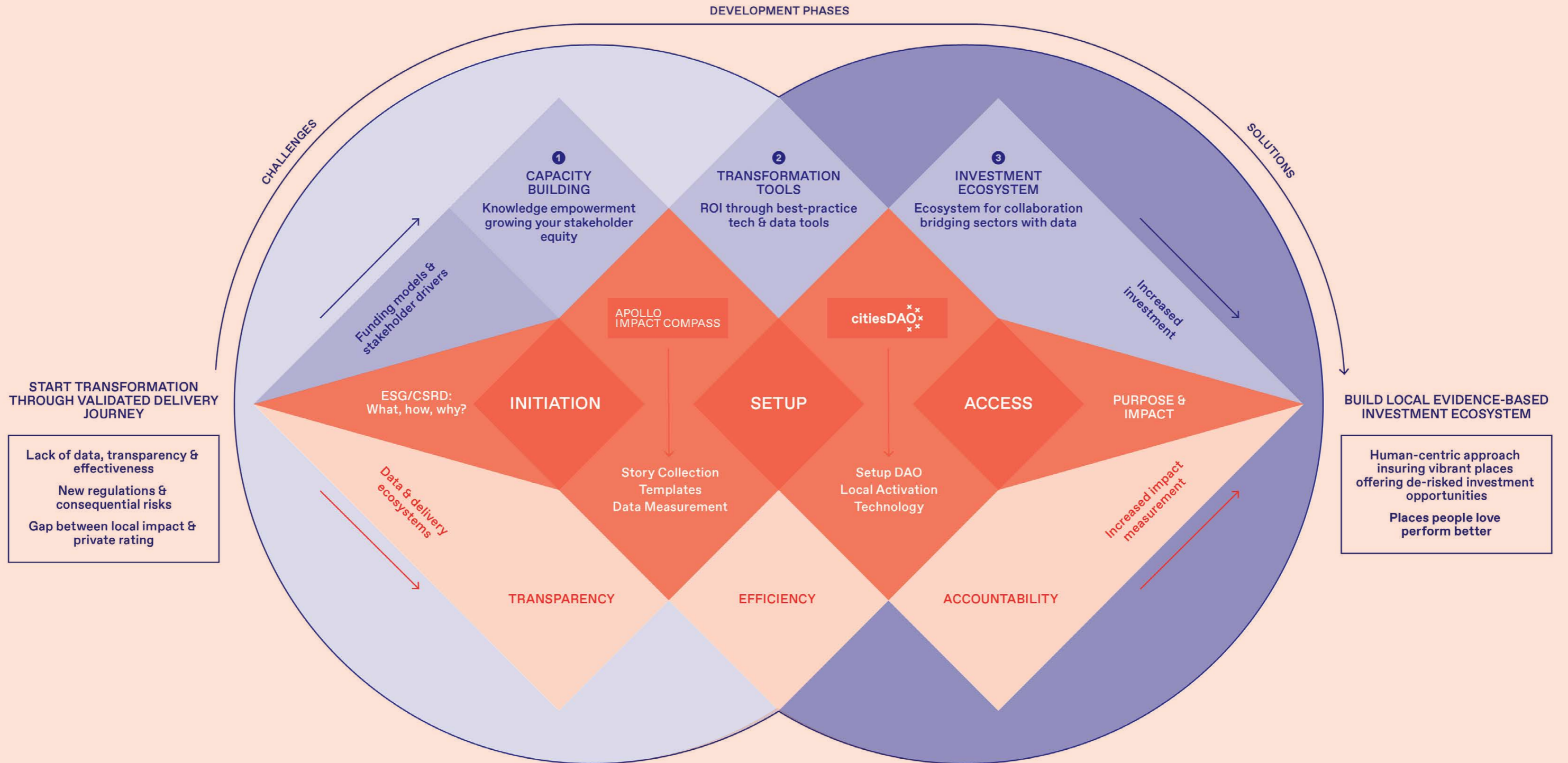


effects through this activity and set it as a best practice for further scaling up. We would like to make these pilot projects happen and then promote them among citizens and commercial parties so they would participate in further development and financing in the other locations. The long-term objective is to build a platform for triggering city-wide adoption of green roofs, and along with such, building adaptation to the Mission of climate neutrality. This will be a project of national significance.

¹ Several examples: Sustainable Development of Vernacular Residential Architecture: A Case Study of the Karuč Settlement in the Skadar Lake Region of Montenegro; Towards Resilient Residential Buildings and Neighborhoods in Light of COVID-19 Pandemic – The Scenario of Podgorica, Montenegro; Towards Innovative Solar Energy Applications: New Urban Furniture; Seismic Evaluation and Methods of Rehabilitation of Old Masonry Buildings in the Bay of Kotor; Houses Based on Natural Stone; A Case Study – The Bay of Kotor; Challenges of sustainable spatial development in the light of new international perspectives – The case of Montenegro.



ESG INNOVATION COLLECTIVE



Florian Wupperfeld

ESG Innovation Collective

<https://www.esginnovationcollective.com>

Our journey so far...

When the ESG Innovation Collective began in 2022, supported by InvestitionsBank Berlin, BerlinPartner, and visit-Berlin, our mission was to establish a new collaboration methodology across civic, public, and private sectors, leveraging the ESG/CSRD directive to drive the urban sustainability agenda forward. With a dedicated team from these sectors, we started to define the stakeholder needs, drivers and pain points concluding with the first ESG 'S' (Social) manifesto for cities.

Understanding that CSRD/ESG is not only relevant for the private sector, but also for the public sector was initially challenging. During the early stages of our journey, most cities we engaged with believed that these new regulations wouldn't affect them.

However, with a dedicated, cross sector leadership and their innovative thinking approach we built up capacity around this new financial regulation. Very soon it became clearer that 'S' is local, meaning social sustainability is the business of cities. Our private sector members quickly realized that cities would be the partners who could deliver the 'S' thanks to their local knowledge, insights, and relationships on the ground (i.e. education, healthcare, and social housing).

In 2023, the City of Amsterdam joined our initiative, further enriching our collective. Our

focus shifted towards establishing a collaboration methodology and to shine light on how the actual financial and data relationship could work. This led to the evidence-based, social investment ecosystem we have today, leveraging local data as a valuable currency for investors. This empowers them to monitor investment performance, ensuring transparency, and acquire crucial data for refining their ESG rating, aiming to bolster ratings and therefore facilitate better access to capital markets.

Navigating the interface between civic and private sectors can be challenging. To enhance this interaction, we aim to construct a bridge grounded in evidence, amplifying the impact of public-private placemaking, mitigating investment risks, and enhancing transparency.

The private sector's opportunity lies in de-risking and validating investments, facilitating cheaper access to capital markets through our scheme. Simultaneously, cities play a crucial role, since new innovations in particular across various departments needs clear leadership. There exists the immense potential to establish a mutually beneficial interface prioritizing human / neighborhood/cultural needs and the required ESG investments for funders. Facilitating this ecosystem is a platform to enhance transparency, accountability, and overall effec-

tiveness. Such a platform needs to offer local social and cultural initiatives a platform to tell their stories to access funding. By doing so, it offers investors access to validated social initiatives, and cities the opportunity to match civic stories with the private sector – creating new data points and certification opportunities.

Looking ahead, we acknowledge that the 'S' aspect of ESG remains less defined than the 'E', with about 15 years of development behind it. While the carbon market offers a relatively transparent currency and market for carbon emissions, 'Social' still has various interpretations, with different rating agencies having different criteria and priorities.

We extend our appreciation to the approximately 250 individuals who engaged, trained, and collaborated with us to prepare for ESG readiness; the development brought together leaders from academia, finance, cities, and private and civic sectors, representing diverse locales including Berlin, Amsterdam, Hamburg, Barcelona, Reggio Emilia and numerous other regions. To sum up, a few crystallized points are as follows: cities understand local needs; local policy, shaped by democratic elections, sets the backdrop for the 'Social' agenda in cities - with Naples clearly differing from Hamburg in this regard. Therefore, social is local.

Dr. Jan Hennig & Dr. Dominik Stolz | GSK Stockmann, GSK.de

An Evidence-Based Social Investment Ecosystem

As an international private law firm with a traditional focus on real estate law in all its facets, the City Science Initiative and the ESG Innovation Collective are for us of enormous added value because of new perspective, insights and an ecosystem which hopefully will shape our cities in the future. Therefore, through our participation we position ourselves at the forefront of new regulatory requirements with regard to sustainable real estate projects and property developments as a pioneer.

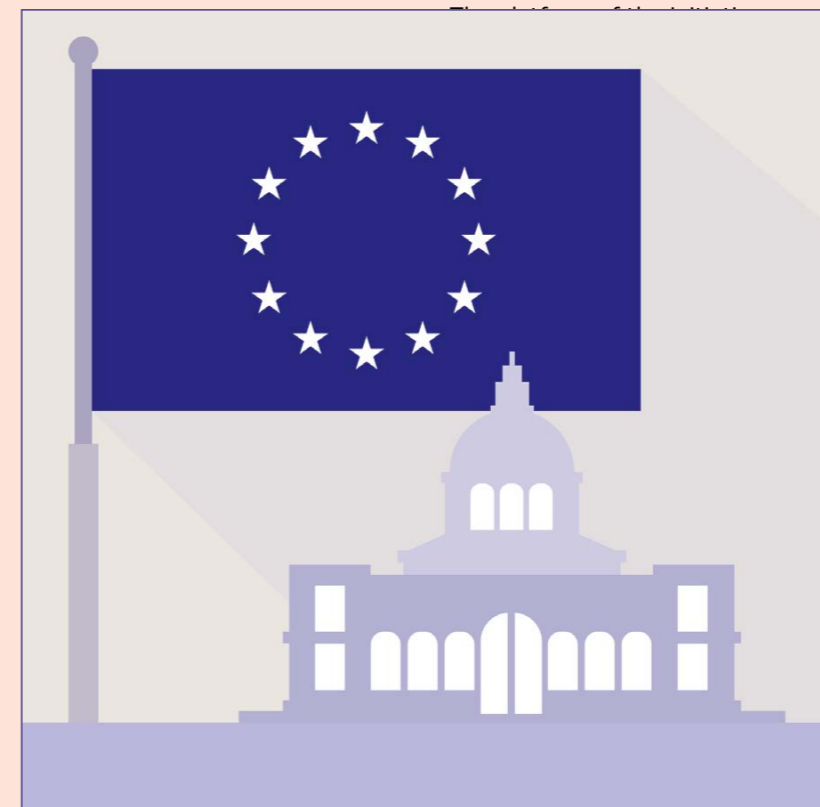
Although the law firm itself is not obliged under the European Sustainable Finance Disclosure Regulation (SFDR), the Taxonomy

Regulation and currently not yet under the Corporate Sustainability Reporting Directive (CSRD), we work together with our clients to chart the way forward and possibly set an initial market standard collaboratively.

In this respect, we see ourselves as a kind of 'gate keeper', we practically serve the merger between financial investors and real estate companies, but also the public sector, such as municipalities, cities and local authorities. Unlike most other players, we see the opportunity to initiate a joint decision-making process that ultimately serves the interests of all parties involved – and eventually the community as a whole.

provides the ideal foundation, since it brings together different parties from various backgrounds who are all about to prepare for a future in which the regulation of sustainable products will dynamically change. It is otherwise very difficult to be ahead of the wave and actively shape developments in this regard.

The benefit that we as a commercial law firm can offer in this respect, is to engage match-making somehow, i.e. to bring together parties who not only see these legal and supervisory guidelines as requirements, but also as an opportunity. Because in an environment in which certain benchmarks have already been set and in which we have helped to initiate, completely new markets and opportunities can be opened up. Eventually, a benefit for everyone. We are thrilled and more than grateful to play our part in this and looking forward for anything that is about to come.



6 The Need for a Common Framework

Workshop in Brussels – Royal Library –
18-19 March 2024

Juan-Carlos Goilo

Rapporteurs: Pedro Campos-Ponce, Peter van der Maas,
Eva Baaren, Sergei Zhilin, Naciye Karaailoglu

With the support of the EU DG Research and Innovation, a special 24-hour workshop was organized during the Research & Innovation days in Brussels. There were 13 cities present and the CFOs of another 6 cities were represented. Over 10 business people participated and were invited by Leading Cultural Destinations. Cities and the private sector all came at their own expense. The meeting was hosted by the City of Amsterdam, which invited 5 civic initiatives to join as well. During the workshop, the Chatham House Rule was applied, which means that everyone can cite what is being said, but no specific names can be used with the citation. A list of the members of this workshop is to be found in the annexe.

A draft of this report was shared with the participants beforehand. After 1,5 hours of introductory lectures into the thinking on ESG for Cities so far, the 35 participants explored in structured dialogues in 5 tables in 4 rounds specific themes of the new potential good and bad of an ESG for Cities framework. Being part of a discussion between the different sectors requires serious engagement to want to understand each other. Every table had a rapporteur, members of the CSO team of Amsterdam. Based on these notes a summary of the findings of this workshop is sketched here below.

The need for a Common Framework

The evolving significance of ESG policy and investment criteria are increasingly significant in the narrative landscape of sustainability, impact and climate transition. They form a crucial framework which is guiding collaborative efforts and policy development across multiple sectors.

EU workshop
uniting cities and
sectors for impact

ESG criteria provide a common platform which allows diverse stakeholders to understand how they can work together towards common goals. They provide structured frameworks for organizations to report on their environmental, social, and governance performance and compare their impact. ESG emphasizes the need for stakeholders to align their understanding of challenges and missions before engaging in collective action. Serving as a cornerstone for impact measurement as they proceed together.

Mandating ESG reporting shifts stakeholders' mindsets towards considering how they can assess the broader impact of their actions beyond financial returns.

Mandated reporting enables the development of a transformative shift in mindset. Introducing transparency and long-term accountability. Moreover, collaboration between the public and private sectors is essential for defining and maximizing social impact.

Small and medium-sized enterprises (SMEs) face challenges in engaging with ESG due to resource constraints, despite accounting for 98% of businesses in the EU. However, their engagement is critical to a successful climate transition. SMEs can leverage their understanding of local contexts and community engagement to develop social resilience.

The narrative of shared challenges and progress underscores a collective responsibility towards ESG initiatives, reflecting Europe's progressive stance and a shared vision for uplifting / a greener and more inclusive Europe. Ultimately, ESG's role as a common framework for policy development, facilitates informed decision-making, balances competing interests, and enables the transformation of complex challenges into actionable solutions. Developing transparency and alignment across sectors.

Navigating Limited Resources

SMEs often find themselves at a disadvantage to large corporations, which possess ample resources for ESG investment but are often reluctant to allocate funds towards ESG initiatives. However, SMEs have inherent strengths in ESG. Particularly their deep knowledge of local contexts and their adeptness at engaging with the community. Recognizing these inherent advantages, SMEs can leverage underutilized resources to innovate and adapt.

Guiding collective
action with the
ESG framework

Transforming the
accountability landscape

Challenges for SMEs

Unlocking ESG potential for SMEs

For instance, SMEs can repurpose unused office space to develop diversity within their organizations, thereby addressing both social and economic imperatives. This approach not only optimizes resource utilization but also aligns with the ethos of ESG, creating a symbiotic relationship between social responsibility and business viability. Moreover, the current emphasis on the social (S) dimension of ESG presents SMEs with a unique opportunity to position themselves as catalysts for economic growth and societal advancement. By embracing initiatives that promote inclusivity and community engagement, SMEs can tap into the untapped potential of diverse talent pools and foster a culture of innovation and resilience.

Collaborative synergies in different time frames

Furthermore, the convergence of product, data, and initiative within the ESG framework offers SMEs a strategic roadmap for sustainable growth. By aligning their business strategies with ESG principles, SMEs can unlock new revenue streams and capitalize on emerging market trends, thereby enhancing their competitive edge. In this evolving landscape, collaboration emerges as a cornerstone of success, with SMEs forging partnerships and dialogue with both public and private stakeholders. By developing greater synergies between disparate entities, SMEs can access new markets, share resources, and amplify their impact on society. However, navigating the complex interplay between the short-term pressures which often characterize SMEs and the long-term objectives of ESG remains a challenge for them. The dichotomy between the short-term focus of the public sector, driven by electoral cycles, and the long-term perspective of pension funds and real estate investors underscores the need for SMEs to adopt a strategic approach towards stakeholder management and social responsibility. Ultimately, strategic approaches to stakeholder management can support the integrity of local impact-driven initiatives in the civic sector

Financial dynamics

The financial dynamics of ESG investing present a multifaceted landscape, shaped by various factors ranging from investment ratings to societal needs and investor mandates. The recognition of cities as focal points for critical investment, underpinned by the assurance of taxpayer support sits at the heart of this narrative. As European municipalities seek to enhance their social and cultural fabric, the strategic infusion of capital becomes imperative. Necessitating the development of cogent arguments to attract ESG investment.

Cities as the focal points for investment

Within this context, ESG investment emerges as a potent vehicle for effecting positive change, grounded in principles of impact and evidence-based decision-making. Institutional investors, driven by client mandates and long-term objectives increasingly prioritize socially impactful projects, amplifying the demand for ESG-aligned initiatives. Municipal (be it green or social) bonds. While offering avenues for investment, municipal green and social bonds face increased scrutiny from investors, because ultimately their desirability hinges on factors such as interest rates and perceived risk.

Moreover, the recalibration of GDP metrics to encompass social and environmental considerations underscores the broader economic implications of ESG investing. Beyond traditional financial metrics, the valuation of societal benefits, such as reduced pollution and enhanced social cohesion, assumes significance in assessing investment returns. However, the pursuit of ESG investments is not without its challenges. Municipalities, while eager to address civic needs, view private equity with caution, wary of its potentially corrosive effects.

Still, the convergence of investor willingness and municipal imperatives presents an opportunity for collaboration. Where municipalities assume the role of mediators and facilitators in bridging the gap between societal needs and financial interests.

Environment and societal impact and a business proposition with a solid return

The environmental (E) aspect of ESG has rapidly become well-established, accounting for a large part of the annual increase in impact investment volume at the European Investment Fund (EIF) from 2017-2022. There's now a growing focus on the social (S) criteria which include accessibility for all, including lower-income, elderly and people with disabilities. Highlighting the importance of achieving environmental and societal impact at the same time as a business proposition with a solid return.

Central to this narrative is the recognition that ESG investing delivers positive environmental and societal impacts alongside solid financial returns. Embodying commitment to fostering sustainable and inclusive growth, for example by mainstreaming the goals of the Paris Agreement into all transactions. ESG is emerging as a new paradigm that aligns financial objectives with societal well-being. Developing new metrics in the valuation of investments like education which have frequently traditionally been perceived as 'intangible' by banks

Prioritizing social impact

Recalibrating GDP

The growing importance for social criteria

New metrics: valuing intangible investments

In essence, the financial dynamics of ESG investing make tangible cases for holistic value creation. Where investments made in line with the goals of the Paris Agreement, the United Nations 2030 Agenda for Sustainable Development and the European Green Deal amongst other key and other key international agreements serve as catalysts for positive change. Driving economic prosperity and societal advancement through collaboration and innovation. Enabling stakeholders to harness the potential of ESG investing which develops and finances the building blocks of resilient and vibrant communities for generations to come.

The need for legal conditions

The urgency of climate change compels closer alignment between regulatory agendas and business imperatives. By embracing legal conditions that support ESG principles, stakeholders can harness the transformative potential of ESG investing to create a more sustainable and equitable future for all.

Regulatory fuel for ESG integration

Societal readiness, regulatory change, and the resulting imperatives for systemic change are catalysts for clear legal conditions in ESG engagement.

At its core, ESG represents a push towards sustainable and ethical business practices. While private investors initially lagged in their readiness to embrace this shift, their rapid adaptation is now a case in point. However, the complexity of regulatory frameworks presents challenges, particularly in the realm of social initiatives. Regulations can hinder the implementation of socially impactful projects, stifling innovation and exacerbating societal inequalities.

Private sector bracing and embracing ESG regulatory shift

Regulatory dilemmas remain in the absence of clear criteria for creating tangible outcomes. Opaque policies generate excessive bureaucracy that complicates matters, impeding swift decision-making. To address these challenges, there's a call to embrace an economy wherein cities play a crucial role in developing ethical economic partnerships in line with the Paris Agreement, the United Nations 2030 Agenda for Sustainable Development and the European Green Deal,

Establishing an ethical economic board within cities can facilitate collaboration between private and public entities, driving sustainable growth and addressing societal needs. By resolving the challenge of managing perceived financial risks presented by ESG investments.

The effectiveness of ESG initiatives hinges on clear guidelines. While the private sector may have historically viewed ESG reporting as benign, regulations are necessary to incentivize meaningful action and to address systemic inequalities. This includes offering tax breaks to organizations that prioritize social initiatives, thereby leveraging the carrot-and-stick approach to drive change. Ensuring a conducive investment environment also requires a predictable level of stability over long-term horizons.

Cities must provide assurances of government support and refrain from making frequent legislative changes, which can deter potential investors. Moreover, fostering closer dialogue between cities, lawmakers and businesses around ESG and impact investing is imperative. This collaboration can lead to developing of more nuanced regulatory frameworks that govern the alignment of investment in economic, environmental and social objectives. As societies increasingly embrace the need for environmental and social responsibility, regulatory frameworks are essential to catalyze and efficiently guide this transformation.

What is missing?

ESG frameworks lack a clear link between investors' project portfolios and the local community, hindering meaningful impact and alignment with community needs. Despite the growing recognition of ESG principles, a disconnect there currently most often remains between investment initiatives and the communities they serve.

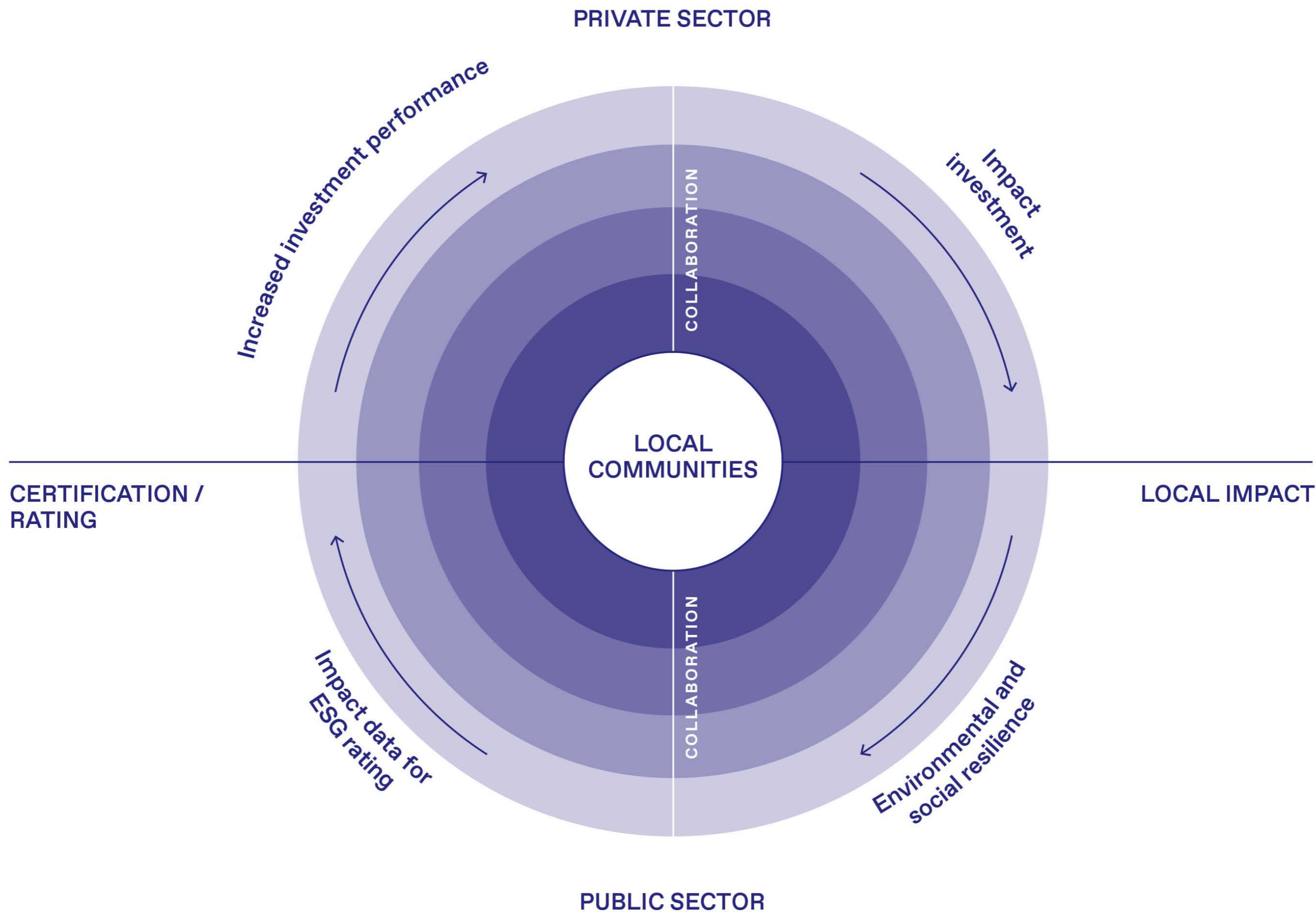
Achieving meaningful impact requires fostering closer ties between investors and local stakeholders, ensuring that projects address genuine needs and contribute to sustainable development. Furthermore, achieving a balance between inclusivity and participation is paramount. ESG initiatives must strive to engage diverse socio-economic strata, ensuring that all voices are heard and represented. However, the fragmented nature of governance, as exemplified by competing ministries responsible for social housing, poses a significant challenge.

While collaboration can foster innovation, it also risks creating bureaucratic bottlenecks that impede progress. The perception of investment values and incentives also plays a crucial role in driving ESG impact. On the one hand, private investors have primarily been motivated by revenue generation, often overlooking and even discounting broader societal benefits. On the other hand, the public sector grapples with defining overarching goals while navigating complex stakeholder dynamics. Bridging this gap requires a shift

Ethics driving growth

The need for economic, environmental and social responsibility

Disconnection fragmentation



in mindset, with all stakeholders recognizing the economic and social value of ESG initiatives. The public sector is in the key position of supporting growth acceleration frameworks which are conducive to the growth of innovative companies with clear ESG objectives. To the point of their becoming viable for private-sector investment.

Bureaucratic bottlenecks

Moreover, the lack of independent verification and formal criteria systems hampers investor confidence. Without clear standards and accountability mechanisms, investors cannot accurately assess the viability of ESG projects and commit resources to them. Similarly, the multitude of roles and overlap within municipalities complicates accountability and traceability, undermining the effectiveness of ESG implementation.

Intrinsic benefits beyond short- and long-term

Private sector players must recognize the intrinsic benefits of ESG engagement beyond short-term gains, while governments and civic sectors must articulate a compelling vision for collective action. By aligning incentives, fostering transparency, and supporting the development of independent verification mechanisms, stakeholders can liberate the full potential of ESG frameworks. Driving positive change and sustainable development for generations to come.

The problem of measuring

Measuring the impact of cultural and social initiatives has long been a vexing challenge, rooted in the intangible nature of cultural experiences and expressions. While the value of culture is palpable, quantifying its impact remains elusive, relying heavily on subjective assessments rather than concrete metrics. This challenge extends beyond culture to encompass broader efforts aimed at generating social and environmental impact. How can we effectively measure and communicate the impact of such initiatives to potential investors and stakeholders?

Measuring intangible cultural impact

One fundamental question that arises is the tension between localization and standardization. While standardization offers consistency and comparability, localized approaches may better capture the nuanced nuances of specific contexts and communities. Despite the development of indicators, the effectiveness of measurement hinges on how these indicators are presented. These indicators directly influence investment decisions, as investors adapt their portfolios based on verifiable impact metrics.

For cities, standardization presents an opportunity to streamline measurement processes, yet the lack of standardized Key Performance Indicators (KPIs) poses a significant challenge. Establishing the

infrastructure for Corporate Social Responsibility and Development (CSRD) reporting is imperative, particularly as reporting requirements become more stringent. To incentivize investment in impactful projects, cities must offer a trusted intermediary to measure their impact and become feasible for co-private sector funding. Real estate developers, for instance, can leverage collaborative networks to navigate complex challenges and drive success. Crucially, the question arises: if we build it, will they come? Effective measurement requires not only quantitative data but also qualitative insights into audience engagement and potential reach. Balancing hard and soft metrics to produce verifiable investment data is essential, allowing for flexibility and adaptability in planning and execution.

Translated into the realm of ESG investing, this challenge of measuring cultural initiatives currently most often turns into a competition between investing in environmental (E) versus social (S) initiatives. Developing robust metrics to gauge impact is essential, as investors increasingly mandate institutional investors to allocate funds to socially impactful projects with long-term investment horizons. Three types of criteria emerge as essential: identifying why ESG initiatives are compelling for the private sector, establishing effective monitoring mechanisms, and defining formal indicators of project success or failure. This necessitates a nuanced understanding of the most impactful areas of intervention, such as inequality, education, and technological innovation.

Four ways to cultivate good 'S' data

Good 'S' data highlights the critical role of data in fostering accountability and responsibility within the ESG-compliant ecosystem. Creating high-quality ESG data requires a structured approach that addresses key challenges and leverages available information. Here's an outline of how to achieve this:

Territorial Creativity as a Mode to Build Trust: Emphasize the importance of harnessing territorial creativity to effectively utilize the abundance of data available globally. Stress the importance of community engagement and transparency in data collection and utilization, emphasizing the need for tangible results to build trust. Provide examples of successful data-driven initiatives, showcasing the impact of high-quality ESG data on decision-making and outcomes. Explore the complexities surrounding data ownership and sovereignty, particularly in the context of private companies processing public and civic data.

Trusted intermediaries facilitating co-investment

Community engagement is key to transparency

Ensuring consistency in measurement practices

Calibrate Distributed Data: Every local context has its way of categorizing and valuing social and cultural impact, which results in a distributed ontology for data. Discuss strategies for calibrating and integrating diverse datasets to ensure consistency and accuracy in measurement. Explore the concept of a structured data lake and how it can serve as a centralized repository for diverse datasets, facilitating accessibility and analysis, unlike unstructured data lakes which lack nuance and direction.

Enhancing access to crucial data

Developing a Common Language for Data Interpretation: Propose initiatives to develop a standardized language for interpreting data, enhancing measurement capabilities and comparability. Address the accessibility challenges associated with data availability and advocate for measures to make data more widely accessible.

Advancing social impact measurement standards

Standardizing Social Impact Measurement: Discuss strategies for effectively collecting and processing city data to unlock its full potential for informing decision-making and policy development. Highlight ongoing efforts to standardize social impact measurement, acknowledging the complexities involved and the need for improved indicators. Discuss the role of verified data in advising government entities on impact measurement, particularly focusing on location-based assessments. Consider the inclusion of personal connections in impact measurement, recognizing their significance in assessing social and community outcomes.

Building Trust

Building trust between public, private, and civic sector stakeholders is not just desirable but essential for driving collaboration and achieving shared objectives. This endeavour requires a thoughtful approach that begins with a deep understanding of the intricate dynamics that govern interactions among these sectors.

In the pursuit of trust-building, several strategies emerge as crucial components of the pathway forward:

- **Utilizing Local Solutions:** Acknowledge the significance of local solutions and the inherent challenges in translating success across different contexts.
- **Emphasize the value of benchmarking between cities** to glean insights and adapt strategies accordingly. Share best and worst practices.
- **Shifting Perceptions:** Explore the evolution of perceptions surrounding environmental initiatives, emphasizing the transition from viewing them as 'matters of beauty' to recognizing them as 'duties of sustainability'. Highlight the role of credibility and confidence in fostering trust.

- **Recognizing Trust Dynamics:** Delve into the distinct trust dynamics across civic, private, and public sectors, acknowledging their varied foundations and operational modalities.
- **Codependency and Collaboration:** Stress the interconnectedness of public-private and public-civic relationships, emphasizing the imperative of collaboration despite potential cultural and generational differences.
- **Building Trust through Dialogue:** Advocate for open and inclusive dialogue as a means to build trust, creating spaces where all stakeholders can voice their perspectives and align their visions and motivations.
- **Investing in Relationships:** underscore the importance of investing in relationships, fostering mutual understanding, addressing emotions, and ensuring all stakeholders are informed and engaged from the outset.
- **Long-Term Collaboration and Adaptation:** Highlight the necessity of sustained collaboration and adaptation over time, leveraging existing knowledge, replicating successful practices, and fostering resilience and sustainability.
- **Enter the YUTPA framework (Nevejan 2007)** – a guiding principle that sheds light on the dimensions shaping relationships and actions within a given context. At its core, the YUTPA framework, which stands for 'being with You in Unity of Time, Place, and Action', offers a nuanced perspective on how time, place, action, and relation intersect to mould interactions and cultivate trust. It underscores the importance of recognizing the interplay between these dimensions in fostering trust and building meaningful relationships

By embracing and prioritizing transparent communication, mutual understanding, and ongoing collaboration, stakeholders can chart a course towards building trust and effectively addressing complex societal challenges. Through concerted efforts and unwavering commitment to shared environmental and social impact, trust can serve as the bedrock upon which transformative change is built.

In the last moments of the workshop Andreas Toelke stood up and asked attention from all participants for the terrible ongoing wars in Ukraine and Gaza. "We are making plans for a bright future, while so close to us other people's lives are ruined". A silence followed. Then chair Caroline Nevejan responded "Seeing the atrocities daily on the news, having compassion for and mourning with the friends who are directly affected by the conflict, is a daily sorrow for many. Doing this ESG/CSRD exploration may seem useless in light of these events. However, City Science contributes to evidence-based policymaking which is a strong wind against disinformation and propaganda. Envisioning ESG for Cities is driven by the wish to make communities stronger and connecting, investing and communicating to create vitality and resilience in and between all sectors we have discussed before.

Civic Perspective

The civic sector offers a unique perspective on addressing social and cultural initiatives from the centre of local communities. Embedded within neighbourhoods and part of the pulse of community life, civic organizations possess an unparalleled understanding of local needs and dynamics. Through meaningful relationships forged over time, they navigate the intricacies of community life. Leaving them perfectly positioned to identify gaps and opportunities for positive change.

The civic sector channels resources towards initiatives with tangible impact on the ground in an affordable format. From providing essential services and organizing community events to advocating for local causes, civic organizations excel in delivering results that directly benefit residents. This on-the-ground fulfilment speaks to their ability to improve the quality of their communities with great commitment.

Despite their invaluable contributions, civic organizations often operate in the shadows, their efforts overlooked and underappreciated, jumping from one short-term budget horizon to another. This lack of visibility poses a significant challenge, hindering their ability to attract investment and forge partnerships with the private sector. Bridging this gap requires more clarity on the value created by the civic sector. The MAEX platform for example approaches this vacuum by calculating the 'true price' of the value that civic initiatives generate.

Civic groups frequently have to work hard to secure support for long-term projects. The financial sector's measurement criteria are not sufficiently refined for local nuances and innovations in civic sector projects. Closing the divide between different ways of speaking and viewing value and finance is a great obstacle.

A common understanding of the financial accounting requirements of the civic and private sectors requires an approach which can align both of the sectors' performance drivers.

Throughout these challenges, opportunities for collaboration and financing can thrive. By leveraging their expertise and community connections, civic organizations can play a crucial role in creating realistic and evidenced benchmarks to drive social impact initiatives forward. Their insight and engagement are crucial for handling the many urban challenges.

By recognizing the crucial role of civic organizations and developing specific metrics which both they and the private sector can understand, collaboration can be fostered across sectors. The full potential of the civic sector can be liberated to create positive and lasting change within our communities.

With the support of their municipalities, regions and other entities like the EU Commission, they can access the infrastructure and resources needed to identify their performance indicators, thus amplifying their impact and reach. In essence, the perspective and engagement of the civic sector is needed for the creation of Social Impact for Climate Justice.

Universities

Universities stand as dynamic hubs of knowledge, innovation, and collaboration, poised to ignite transformative change within local communities. They embody a multifaceted perspective that emphasizes their crucial role as catalysts for positive societal impact. By leveraging scientific rigour and data-driven analysis, universities lead research for urban challenges. In all domains and through all faculties, often in collaboration with a variety of stakeholders, they innovate and validate.

As they navigate the corporate engagement landscape, universities recognize the vital need for companies which are genuinely dedicated to fostering positive change. They serve as forums for cultivating a common language and narrative among diverse stakeholders. Through open dialogue and collaborative exchange, they bridge the gaps between academia, industry, government, and civil society. Fostering mutual understanding and co-creating innovative solutions to complex challenges. By focusing efforts on collaborating with the relatively few companies which are currently committed to impactful action, universities forge partnerships that transcend mere rational and technical transactions, fostering mutually beneficial relationships grounded in shared values and purpose.

Universities advocate for dynamic ESG governance structures which foster transparency, accountability, and inclusivity. Recognizing the transformative power of collaboration, they provide safe spaces for experimentation and innovation, nurturing interdisciplinary research and fostering vibrant communities of changemakers.

ESG not only levels the playing field between sectors but also promotes ethical practices and responsible decision-making in line with the

goals of the Paris Agreement, the United Nations 2030 Agenda for Sustainable Development and the European Green Deal amongst other key and other key international agreements. Laying the groundwork for universities to investigate pathways to a more equitable and resilient future.

As translators and facilitators of trust between various stakeholders, universities play a crucial role in building bridges across sectors and fostering constructive dialogue. By nurturing an ecosystem of knowledge exchange and collaboration, they empower stakeholders to work together towards shared goals, cultivating a culture of trust and collaboration which is essential for driving meaningful change.

In equipping students and young researchers with the tools and skills needed for transformation, universities empower the next generation of leaders and innovators. Through experiential learning, interdisciplinary collaboration, and digital innovation, they cultivate a mindset of resilience, adaptability, and creativity.

Preparing a new generation to tackle the complex challenges of tomorrow with confidence and resolve. From the perspective of young researchers, universities embody not only institutions of learning but also vibrant hubs of activism, innovation, and social impact. With a focus on practical experience, interdisciplinary collaboration, and constructive dialogue, they embody the spirit of transformation, inspiring individuals to harness their collective potential to shape a better future for all.

Private sector

The private sector relies on engagement terms as crucial elements of their contractual obligations. For most companies, it is not easy to combine the need for short-term gains with long-term ESG objectives.

While profit remains a primary focus for private sector investors, there's a growing awareness of the compound effects of investing and their negative overall impact on their portfolios. Social responsibility requires companies to understand the need to engage with and be present in the communities they operate in to make sure their operations contribute positively to them.

This is driving a shift towards initiatives with environmental and societal impact which also represent business propositions with a solid return.

For the private sector, managing challenges and risks are primary concerns. Especially in a rapidly changing environment, the lack of standardized indices and difficulties in grading risks add complexity and often disproportionate risk factors to decision-making processes.

Due to the introduction of ESG and CSRD, there is a rapidly growing recognition of the importance of transparent reporting and impact data. Many companies invest now in understanding and quantifying their social and environmental footprints. In the realm of ESG & CSRD, large companies primarily focus on environmental targets, finding social impact realization more challenging to identify but equally rewarding once the value has been established. They understand that strong ESG reporting attracts top talent, can increase diversity in the workforce and enhances brand reputation, ultimately driving sustainable growth.

The implementation of the ESG/CSRD poses challenges, particularly in quantifying the social aspects of investments. However, private sector actors are contributing to developing collaborative models with the public and civic sectors. For example, winning rewards in value-based initiatives which recognise the need for joint efforts to achieve meaningful impact.

Risk perception varies across regions and sectors, with investors seeking to de-risk their investments. Companies successfully manage the challenges and risks stemming from ESG investment factors through local engagement and informed by local social science metrics and reporting mechanisms which conform to CSRD and other internationally recognised qualification standards. Understanding the chain of investment and its impact is crucial, aligning with the civic sector's expectations for responsible financial stewardship and those of the Paris Agreement, the United Nations 2030 Agenda for Sustainable Development and the European Green Deal, amongst other international agreements.

Ultimately, the private sector sees ESG/CSRD as an opportunity for growth and innovation, provided that it can be aligned with international accounting standards, offering clear and auditable benefits for all stakeholders. By considering transparency, collaboration, and measurable impact together, companies strive to not only mitigate risks and address ESG challenges to create solid returns but to also drive positive change in the communities they serve.

Municipalities

Municipalities stand for the integrity of their community well-being. From managing permits to policing the streets, their mandates weave into the fabric of everyday life, shaping the experiences of residents. Yet, beneath the surface of bustling streets lies a complex web of responsibilities, challenges, and aspirations that define the municipal perspective. For municipalities, transparency and accountability are not just buzzwords but guiding principles. Citizens entrust their hard-earned taxes to fuel the engine of local governance, expecting nothing less than clear visibility into how every penny is allocated. This responsibility for the stewardship of public funds builds the bedrock of trust between residents and their local government. Municipalities understand the power of unified partnerships for tackling the multifaceted challenges that confront modern cities. However, forging these alliances isn't without its hurdles. Navigating divergent goals and interests demands transparent decision-making processes and open lines of communication, ensuring that every stakeholder's voice is heard.

The ESG/CSRD framework is an opportunity for municipalities to bridge the gap between financial access and their stewardship of social impact which has been entrusted to them. By aligning municipalities' social and sustainable ambitions with private sector investments, cities can liberate a treasure trove of resources to fuel positive change. It's a symbiotic relationship, where responsible municipal governance meets the governance layer of innovative finance to define and pave the way forward to a sustainable financing of our future.

Municipalities face a daunting challenge: evaluation and impact measurement. Deciphering the effectiveness of social and sustainable initiatives requires more than just numbers—it demands community engagement, expert insights, and a keen understanding of local dynamics. Social is local. Armed with the ESG/CSRD framework, municipalities press forward, striving to quantify the previously unquantifiable and convert their policy measurements to investment areas which were historically viewed as immeasurable by the financial sector.

Legislation and finance tools are fundamental in municipal strategy. With supportive laws and innovative financial instruments, cities can address the challenges private investors face. By doing so, they channel investments towards evidence-based social returns, paving the way for transformative change. From procurement laws to new financial mechanisms, municipalities translate collective needs into actionable strategies, inviting the private sector to contribute to creating a more equitable and sustainable society. Municipalities drive these public, private, and civic collaborations because they are expected to have a steadfast commitment to transparency, collaboration, and progress to enable the growth of vibrant, resilient communities with long-term sustainable plans for their growth in action.

Trust is Vital

Caroline Nevejan

It appears in this one-year-long exploration with many people from different walks of life involved, that a structural dialogue between the universities, the civic, the private and the public sector is crucial to the transitions we face. We hardly speak each other's languages, we organize and trust in different ways and we have varied perceptions of success.

The need for climate justice will only be louder and louder in the coming era. Climate adaptation requires investments, speed and scale and easily the quest for equal opportunities is lost in this already very complex endeavour. Easily engineering takes over from social cohesion. Easily social structures prevent the necessary actions from being taken. If so, one can be sure that polarization and social unrest will demand intense attention and safety and well-being will be jeopardized.

In workshops with students in different cities about their future, they expect to experience severe climate events and they are convinced that diversity and adaptivity to nature are crucial for their survival. They consider themselves active agents of transformation and like to get out on the streets and work with real challenges. They feel, however, that they lack practical skills and skills for multi-disciplinary collaboration. They want to work through collective effort and cooperation, but they miss constructive conversations. They embrace digital transition & innovation and are convinced of the need to establish new institutions.

The ESG/CSRD frameworks have the potential to offer a new opportunity to organize the dialogue between the universities, and the private, civic and public sectors. In networks, in projects, and in the so-called ESG Impact Hub understanding of the need to align with each other's agency can grow. Students and young researchers need to be part of these developments.

Technology can be a good facilitator here. In the CitiesDAO demo, we show that it is possible to go from story to measurement and back to story again. This demo emphasizes the need for human expression through the

telling of stories, which is appreciated by people in all sectors. Secondly, it emphasizes the need for transparent and auditable measurements of the success of collaboration by introducing a rhythm-based voting system on the blockchain to monitor how projects are going and how people are feeling. This generates trust by offering transparency over time, but also indicates how trust is flowing in the collaboration. It not only offers insight in hindsight but also functions as an alarm for when a project needs more attention to work well.

At the Research & Innovation days, EU Commissioner Mariya Gabriel and Patrick Child, mission manager of the 112 Climate Neutral Cities, announced the initiation of a Capital Hub for the 112 Climate Neutral Cities mission. Developed by the NetZero cities consortium, which was part of this ESG4C exploration as well, the Capital Hub will support cities in planning investments, organizing public support, helping to design projects, supporting financial modelling and assisting in attracting investors for such projects.

This exploration shows that such a hub needs to facilitate the dialogue between investors, universities, cities, communities and different generations. The exploration also shows that once the ESG/CSRD is accepted and implemented, cities can take a new position in the financial landscape. In collaboration with banks, large companies and SMEs, cities can orchestrate sustainability, circularity and a thriving community life. By doing so they create the resilience and vitality that our social survival needs, for generations to come.

The many people who generously gave their time, energy and insight all did this because we feel there is a need to alter the dialogue between the different sectors and join efforts in working towards Social Impact for Climate Justice. Cities and regions play a crucial role in this. The new ESG/CSRD frameworks are yet another opportunity to make such trusted alignments happen.

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