City finance and Investment Policy

Mobilising external finance for NetZeroCities

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Abbreviations and acronyms

Acronym	Description
CCC	Climate City Contract
CF	Cohesion Fund
EC	European Commission
EIB	European Investment Bank
ERDF	European Regional Development Fund
MCCH	Mission Cities Capital Hub
MS	Member State
NGEU	NextGenerationEU
PPP	Public-Private Partnership
RRP	Recovery and Resilience Plan
SCF	Social Climate Fund,
WP	Work Package

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Summary

Cities are key for addressing climate change, achieving deep emissions reductions and advancing climate resilient development. Throughout history, they have often been at the forefront of change and innovation. Consequently, cities also play a key role in the decarbonisation of the economies of EU Member States (MS). While public funding remains the major financial resource available for cities, enhanced private investments are needed to accelerate the transition pathway towards climate neutrality by 2030. It is therefore key that cities in the EU27 be aware of and utilise the different external financing and funding options available to them.

The current report aims to provide an overview of the current state of external funding and financing used by cities (chapter 3) and of the existing EU policy landscape that impacts net-zero investments by the financial sector in cities (chapters 4). It presents insights into the perspectives of financial institutions and climate finance experts on municipal net-zero investments, including on barriers and opportunities for increasing investments (chapter 5). And it provides policy recommendations on improving the urban climate finance landscape to support cities to become climate-neutral by 2030 (chapter 6). The insights into the perspectives of financial institutions were gained through semi-structured interviews with public and private financial institutions, investors, and funding agencies.

The report is part of work package 14 of the NetZeroCities Project on ‘Policy Recommendations’. It builds on previous analysis under work package 7 on ‘Financing the Transition’ including the report *City climate finance landscape, barriers and best practices in city climate finance* (Bourgeois et al., 2022) and the ‘Finance Guidance Tool’ (NetZeroCities, 2022).

Recommendation for municipal policy making and integration into the city-level investment plans include: i) Utilising existing relationships with financial institutions for net-zero investment and integrating the net-zero transition into standard municipal funding and financing processes; ii) Consulting with financial institutions during policy design; iii) Aligning municipal climate policy and 2030 Climate Neutrality Investment Plans with the EU Taxonomy; iv) Simplifying regulation and aligning municipal climate policy with national and EU regulation; v) Setting clear and unambiguous mid- and long-term policy signals, and building non-partisan consensus on key net-zero priorities; vi) Fostering knowledge exchange between municipalities and utilising existing technical advisory facilities. Moreover, cities participating in the NetZeroCities programme are recommended to make use of the technical advisory services offered by the programme and to specifically consider external finance for the development of their 2030 Climate Neutrality Investment Plans. Providers of technical assistance, including the Cities Mission Platform, managed by NetZeroCities, can support cities in mobilising external finance.

In addition, to these action points for cities, a multi-project funding and financing facility outside of the regulatory limitations of the public (city) budgets with the potential for blending public and private funding and financing may address some of the structural challenges in the public funding system.

Keywords

City finance, finance policy, public and private finance, net-zero investment

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1 Introduction

Cities are key for addressing climate change, achieving deep emissions reductions and advancing climate resilient development. In the EU, about 40% of the population currently resides in urban areas, where more than 50% of the EU's GDP is generated (Eurostat, 2022). Cities also account for a growing proportion of national and global emissions, depending on emissions scope and geographic boundary. In 2020, urban areas were estimated to be responsible for about 70% of global GHG emissions, a share that is expected to reach up to 80% by 2100 (IPCC, 2022).

In the context of the European Green Deal, EU Member States have committed to climate neutrality by 2050. One of the key aspects of the Green Deal is to increase the EU's 2030 climate target by reducing greenhouse gas emissions by at least 55% compared to 1990 levels. To ensure the successful implementation of this target relevant sectoral legislation under the "Fit for 55" package of legislation is finalised (European Commission, 2021). Financing the decarbonisation of key sectors, such as building, transport, energy and industry, improving the energy efficiency of buildings and supporting the implementation of renewable energy infrastructure will require massive investments. A recent communication from the European Commission (EC) (2023) highlights that to reduce greenhouse gas emissions by 55 % by 2030, the EU will require EUR 700 billion of additional investments annually from 2021 to 2030 compared to the period from 2011 to 2020 for decarbonising its economy and achieving its environmental objectives.

Throughout history, cities have often been **at the forefront of change and innovation**. Consequently, cities also play a key role in the decarbonisation of the economies of EU Member States. To support the EU's ambitious climate goals expressed under the Green Deal, and as part of the Horizon Europe programme, the EU has launched a mission to achieve 100 climate neutral and smart European cities by 2030 and to ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050.

The **NetZeroCities project**[1] is part of the Horizon 2020 Research and Innovation Programme. It has been designed to help cities overcome the current structural, institutional, and cultural barriers they face to achieve climate neutrality by 2030, and to leverage existing opportunities in cities towards climate neutrality. Achieving these climate targets will not only require substantial changes in cities' planning and policy making, but also the mobilisation of considerable amounts of funding and financing.

Many European cities are already in the process of mapping out their net-zero transition pathways and identifying projects to achieve this transition. However, currently, there still exists **a significant funding gap** that needs to be addressed for enabling the transition towards cities' climate neutrality. While public funding remains the major financial resource available for cities, enhanced private investments are needed to accelerate the transition pathway towards climate neutrality by 2030 and provide cities with additional resources to support their climate investment plans. **Cities' own resources raised through taxes and fees, as well as available contributions from national and regional public budgets are inherently limited.** Already today, private and public financial institutions function as important sources of financing and funding for many cities, with their role expected to grow in the context of the net-zero transition. However, many cities have identified a significant knowledge gap in understanding the variety of financial mechanisms and sources of capital available to them to finance their climate actions. To bridge the current financing gap for the transition to net-zero urban economies, **it is key that cities in the EU27 are aware of and capable to utilise the different external financing and funding options available to them.**

The current report therefore aims to provide:

- **an overview of the current state of external funding and financing options used by cities (chapter 3) and of the existing EU policy landscape** that impacts net-zero investments by the financial sector in cities (chapters 4).

[1] Further information on the project can be found at https://netzerocities.eu/

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- **insights into the perspectives of financial institutions and climate finance experts on municipal net-zero investments**, including on barriers and opportunities for increasing investments (chapter 5).
- **policy recommendations on improving the urban climate finance landscape** to support cities to become climate neutral by 2030 (chapter 6). These include **tangible recommendations for municipal policy making, integration into the city-level investment plans** and a recommendation **for designing and operationalising a multi-project funding and financing facility**.

The focus is on the mobilisation of external finance, in this case **funding and financing available through private and public financial institutions,** complementing the traditional public funding sources available to cities, namely local taxes, fares and fees from services provided and transfers from higher levels of government. The **report's primary target audience are EU27 cities**, with policy makers at the national and EU level as well as investors and providers of technical assistance as secondary target groups.

As **part of the broader work done under the NetZeroCities project**, the report builds on previous analysis under work package 7 (WP7) on 'Financing the transition' including the report 'City climate finance landscape, barriers and best practices in city climate finance' (Bourgeois et al., 2022) and the **Finance Guidance Tool** (NetZeroCities, 2022). This report will also provide input for a final NetZeroCities White Paper on climate neutral and socially innovative cities in Europe to be published at the end of the project in 2025. The current report with its analysis of barriers and opportunities for net-zero investments from the perspective of financial institutions is complementary to an analysis of policy needs, gaps, and barriers from the perspective of cities to be prepared under WP7.

2 Methodological approach

The description of financial flows in chapter 3 is based on publicly available literature and statistical data. Chapter 4 maps and analyses the EU finance policy framework and landscape relevant to facilitating financial investments in the EU Mission cities. It firstly outlines key funding resources for cities and regions to implement the Green Deal and the Climate Neutral Cities Mission, while the second part provides details on means to mobilise private investments for cities.

To gather the perspectives of actors in the financial sector in chapter 5, fifteen (15) semi-structured **interviews were undertaken with public and private financial institutions, equity investors, an association of philanthropic foundations, and climate finance experts from the European Union.** Overall, four interviews were conducted with public financial institutions and funding agencies, three with private banks, four with investment funds and asset managers, and three with experts on municipal climate finance. Annex 2 provides a list of the interviewed institutions. The interviews had the objective to gain insights into the institutions' attitudes towards climate finance policies, their investments in green technologies, the challenges they face, the opportunities they see, and their motivations for engaging in sustainable finance. Annex 3 provides a summary of these discussions.

The methodology of the interviews was designed to ensure that the data collected was comprehensive, reliable, and comparable across the organisations interviewed. Interviews were conducted **based on an interview guide** designed to ensure consistency and comparability across interviews (see Annex 1). At the same time, the interviews themselves were not strictly structured but allowed for flexibility to encourage respondents to share their perspectives openly, with questions being modified to suit the conversation. The interview guide included open-ended questions to allow the interviewees to provide detailed responses. The interviews were undertaken during the first quarter of 2023. They were conducted in English or German and lasted between 30 minutes and one hour.

The data collected during the interviews was analysed using a thematic analysis approach. The transcripts of the interviews were coded according to the themes identified in the interview guide, and emerging themes were identified through an iterative process. The data was then synthesised to provide insights into the perspectives, behaviours, and motivations of the financial institutions towards

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sustainable finance. The results of the interviews were also verified and complemented through a stakeholder panel in June 2023 that convened experts and representatives from financial institutions.

3 Current state of the urban climate finance landscape

The following chapter gives an overview of the current state of the urban climate finance landscape. It provides **a rough estimate of total urban climate finance, followed by distinguishing different types of financial flows and their relative importance** to provide context for the role of external finance through the financial sector available to cities. The types of financial flows include intracity funding, public funding through transfers from higher levels of government, external finance through financial institutions, investments by corporates including public utilities and transport operators, and innovate finance solutions.

For an **overall quantification of urban climate finance**, the 2021 global overview on *The State of Cities' Climate Finance* (Negreiros et al., 2021) estimates that USD 85 billion of climate finance was invested in Western European cities and USD 9 billion in Eastern European and Central Asian cities in 2017/2018. Out of the USD 221 billion of urban climate finance spent globally for which capital sources were known, the largest contributor were governments financing projects domestically (USD 60 billion), mostly for urban transport and buildings. Secondly, households contributed financing of USD 44 billion, a large part of which was spent on building appliances, equipment and lights, as well as purchases of private electric vehicles. Finance provided by commercial financial institutions, averaging USD 30 billion in 2017/2018, went primarily to urban building energy efficiency, especially to finance appliances, equipment, and lighting.

External finance through the financial sector is part of a complex landscape of municipal funding and financing options that differs widely between EU Member States and their cities. To effectively mobilise and deploy funds from the financial sector for urban net-zero investments, it is important to consider them in the context of this wider landscape of financial flows available to cities, including the various institutions that these financial flows are available from (see also Figure 1).

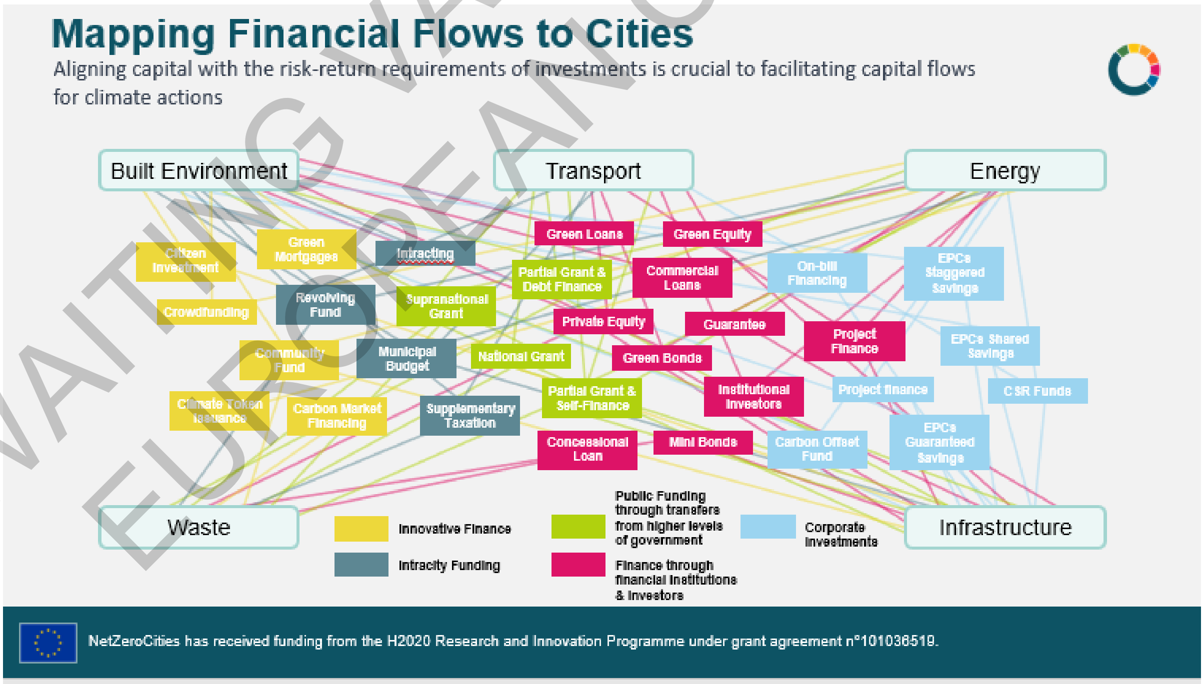

Figure 1: Mapping financial flows to cities

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Intracity funding opportunities include any opportunity available to the city or municipality to fund climate action from within their own budget or through supplementary taxation and income opportunities (e.g. increased parking fares paying for climate action projects).

Outside of the municipal budget, often the potential exists to obtain capital for projects from various national and supranational bodies, such as the national government or the EU's various grant and funding schemes. These transfers may be in addition to existing transfers of funds from higher levels of governments. They often are sector-specific and usually involve an application process but can be a vital funding source for the transition to net-zero.

Out of the overall public funding available to cities, as of 2013, on average, transfers from higher levels of government accounted for about half of the revenue of most local authorities in the EU (European Union & UN Habitat, 2016). Local taxes comprised 36% of available public funds, 13% were from tariffs and fees and 3% came from other sources. However, that percentage varies widely between countries. In Estonia, for example, the contribution of central government transfers stands at over 80% of municipal sector spending. Similarly, in Bulgaria and the Netherlands transfers from the central government account for more than 70% of municipal finances whilst in the Czech Republic, and Sweden, central government transfers fund less than 20% of municipal spending. In countries with a high level of fiscal decentralisation, such as in Denmark, Finland and Sweden, local governments spend more than 30% of the countries' government expenditures (OECD, 2020).

With respect to external finance, financial institutions provide important sources of financing for cities by **providing debt financing through loans and credit lines to municipalities, Public-Private Partnerships (PPPs) and municipally owned companies.** Municipalities and municipally owned companies may also access private finance through the issuance of bonds, although overall the largest share of local government debt comes by far from bank loans (92% in 2014) (European Union & UN Habitat, 2016). In France and Sweden for example there has been a significant increase in the number of municipal bonds issued over the past years, forming the second most important source of municipal investment funding. In Sweden, between 2009 and 2014, the share of bonds in total local debt increased from 18 to 34%. At the same time, the reliance on bond issuances decreased for Croatian, Hungarian and Romanian municipalities.

Public financial institutions provide funding for net-zero investments through concessional credits, subsidies and guarantees, channelling national and EU funds to municipalities.

There has been a significant push in recent years for financial institutions to support the transition to net-zero, and there is now a variety of financing mechanisms that cities can begin to utilise to help plug any funding gaps within their climate action plans. One such avenue is **private equity**, with private equity funds now taking a significant interest in financing (sometimes as full, sometimes as part of a blended finance approach) infrastructure projects across Europe that have a climate related or emission reduction focus. **Pension funds and large asset managers** are also following this approach for large-scale projects as there is an opportunity for mutual benefit: cities receive finance for major, long duration projects and the financial institutions secure a long-term return that is often inflation-linked and fits with their investment mandate. New financing mechanisms in this space are in development and will continue to emerge over the coming years, which may provide further funding opportunities for cities within the NetZeroCities framework.

Investments by corporates, including those from utility providers and transport operators, are other important sources of financing for net-zero investments. Transitioning to cleaner energy and zero emission assets is increasingly financially attractive for utility providers and transport operators. In addition, large corporations may also support local communities through their Corporate Social Responsibility frameworks.

Finally, more **innovative finance solutions** are emerging. They can be citizen-led or driven by the private sector. The former includes crowdfunding of climate action projects such as localised renewable energy or circular economy projects. Private sector driven solutions include new innovative finance solutions such as green mortgages to incentivise privately owned building retrofits, and the use of carbon market financing.

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Given the variety of climate action projects to be implemented – varying in duration, complexity, return profile and many more distinctive properties – **each of these funding and financing sources may play its part in financing the net-zero transition of a city**. It is important to keep in mind, that **each of the EU's 27 Member States has unique ways of how local governments access and utilise funding and financing.** As demonstrated in some of the data above, the importance of direct local taxes, fees, and fiscal transfers from higher levels of government may differ between countries. Similarly, there are differences regarding constitutional guidelines that regulate municipal funding and financing, regulations on limits to public budgets and debt limits, and regulations for PPPs. These in turn, are important characteristics that determine potential barriers and opportunities for leveraging private financing.

4 EU climate finance policy landscape for decarbonisation pathways in cities

Currently, EU funds from the EU Budget distributed through a number of public funding mechanisms are key funding resources for cities and regions to implement the Green Deal at regional and local levels, as they provide funding for public infrastructure investments in many EU regions and cities. They provide local administrations with the financial resources and expertise to implement a comprehensive set of policies in the areas of their local competencies ranging from the management of the local building stock to transport system management, waste management, and the use of green public procurement (Gancheva, Gustafsson, & McGuinn, 2021). The EU funds channel financial resources towards local and regional areas, ensure their alignment with the objectives of the Green Deal, promote action across multiple sectors, and enable the implementation of innovative green technologies. Efforts for systematically mobilising larger amounts of private financing for the transition under the European Green Deal are still ongoing.

The following section will therefore specifically investigate key EU public funding mechanisms including the **Recovery and Resilience Facility (RRF)** under the **NextGenerationEU (NGEU)** recovery instrument, the **Cohesion Policy**, including the **Cohesion Fund (CF)** and the **European Regional Development Fund (ERDF)**, the **Social Climate Fund**, and the **InvestEU Programme**. The chapter will then move to presenting the main EU legislation that aims to support the mobilisation of private climate finance, including the **Sustainable Finance Package, the EU Taxonomy and Disclosure Delegated Act**, and sectoral regulation such as the **EU Energy Performance of Buildings Directive**.

4.1 Key EU public funding mechanisms

Currently, besides national budgets, the EU Budget is still a main source of income for financing the transition under the European Green Deal: The EU's 2021-2027 long-term budget, together with the **NextGenerationEU (NGEU)** recovery instrument, amounts to EUR 2.018 trillion in current prices (EUR 1.8 trillion in 2018 prices) (European Commission, 2022). 30% of the EU budget and 37% of NextGeneration EU are earmarked for climate action and are dedicated to stimulating public investments in green infrastructures. The EU budget, and the NGEU, along with the 'do no significant harm'-principle[2], serve to accelerate the transition to climate neutrality in the EU.

NGEU distributes the financial resources via the **Recovery and Resilience Facility (RFF)** programme providing Member States with loans and grants for public investments in, among others, green transition policies outlined in their Recovery and Resilience Plans (RRP). Member States are required to specify in their RRPs how they will allocate at least 37% of the budget to climate investments and how they will commit to the principle of 'do no significant harm', ensuring that all measures implemented prioritise environmental conservation and are aligned with the six climate and environmental objectives outlined in Regulation 2020/852 (the Taxonomy Regulation), whenever possible. In addition, in their RRP,

[2] The "do not significant harm principle" is to be interpreted within the meaning of Article 17 of the Taxonomy Regulation. The article defines what constitutes 'significant harm' for the six environmental objectives covered by the Taxonomy Regulation, namely: (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) transition to a circular economy, (5) pollution prevention and control, and (6) protection and restoration of biodiversity and ecosystems.

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Member States are required to clarify which local and or central administrations are involved in the implementation of their plans, to describe the coordination mechanisms to facilitate collaboration between administrations, and the capacity-building efforts to provide administrations with the necessary resources and expertise for the effective implementation of the reform.

Among the EU's financing schemes for local and regional authorities, the **Cohesion Policy**[3] also plays a key role in implementing the ambitions of the Green Deal at a subnational level. The Cohesion Policy is the EU's main investment policy targeting cities and regions to foster integrated territorial and local development strategies. It revolves around five main priority areas, including the transition to a low-carbon and sustainable future, by supporting renewable energy projects, energy efficiency initiatives and environmentally friendly technologies, circular economy development, reduced carbon emissions, and biodiversity conservation. The Cohesion Policy outlines the enabling conditions, e.g., related to governance, planning and policy frameworks, that Member States must comply with when implementing climate neutral and resilient solutions[4]. It also provides resources for the implementation of climate neutrality actions at a local and regional level through the **Cohesion Fund (CF)**, and the **European Regional Development Fund (ERDF)**. These funds are specifically earmarked to support investments in environmental projects and the development of trans-European networks in the field of transportation infrastructure, known as the Trans-European Transport Networks. The regulatory framework of the funds includes a firm commitment to promote climate action, setting a target to invest a minimum of 30% of the total European Regional Development Fund (ERDF) and 37% of the Cohesion Fund resources specifically in climate action initiatives (European Parliament, 2021). While the ERDF is directed to all Member States, the main beneficiaries of the Cohesion Funds are Member States with a gross national income (GNI) per capita below 90% EU-27 average (Bulgaria, Czechia, Estonia, Greece, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovenia, and Slovakia). The Cohesion Fund, in particular, promotes a shared management approach based on which each MS is required to implement the solutions in partnership, among others, with regional, local, or other public authorities, thus ensuring a direct impact on urban development.

However, for all these funds, there are concerns regarding whether the full potential of these funds is being tapped into[5]. This indicates a clear need for better targeting EU funds to implement the objectives of the Green Deal. Under the **Multiannual Financial Framework 2021- 2027**, the untapped potential of **EU funds should be channelled towards supporting local and regional authorities to implement the EU's 2030 climate legislation** as sector-specific policies and regulations facilitate cities' pathways towards climate neutrality. More significant and rapidly deployed investment is required.

To support Member States in advancing measures and investments directed at reducing the CO_2 emissions of the building and transport sectors, the EU has developed a new **Social Climate Fund (SCF)** which entered into force in June 2023 (European Commission, 2021b). The SCF is dedicated to providing direct income support to vulnerable households, as well as to support Member States to reduce the costs for vulnerable households, micro-enterprises and transport users. The SCF would provide up to EUR 65 billion in EU funding over the 2026-2032 period. As per SCF regulation, Member States, in consultation with regional authorities, should develop an action plan targeted to their local, regional, and national circumstances, as well as to their existing policies in relevant areas while specifying the intended use of other relevant EU funds. Member States receive the payments of their financial allocations upon completion of the relevant agreed milestones and targets indicated in the

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[3] Further information on the policy can be found at https://ec.europa.eu/regional_policy/policy/what/investment-policy_en
[4] The main objectives of the CF and ERDF are to support climate neutrality solutions in the following sectors: clean and equitable energy transition, investments in green and blue initiatives, circular economy transition, climate change mitigation and adaptation, risk prevention and management, as well as sustainable urban mobility. The enabling conditions are listed in the annexes to the regulation that sets out the provisions on the ERDF and CF (see European Parliament, 2021).
[5] Based on an analysis by the Climate Action Network Europe (2020), on average, EU Member States allocate only 9.7% of their European Regional Development Fund (ERDF) and Cohesion Fund (CF) funding to energy efficiency, renewable energy and related infrastructure, and research and innovation for climate action. A recent report by the European Court of Auditors (ECA) (2022) also points out an overestimation of climate spending by the European Commission compared to the reality on the ground.

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Social Climate Plans and are required to finance at least 50 % of the total cost of the Social Climate Plans from their own resources, and apart from their EU Trading System credits. Payments foreseen in the SCF are allocated based on the following variables: total population; population at risk of poverty living in rural areas; percentage of households at risk of poverty with arrears on their utility bills; gross national income (GNI) per capita, measured in purchasing power standard; overall GHG emissions; and CO_2 emissions from fuel combustion by households.

4.2 EU legislation aiming to mobilise private finance

As one way to mobilise increased amounts of private finance for the EU's net-zero transition, the European Commission has also set up the **InvestEU Programme**. The programme is intended to mobilise more than EUR 372 billion of public and private investment via a EUR 26.2 billion guarantee from the EU budget. InvestEU is operated by the European Investment Bank and other public financial institutions. It consists of three main instruments:

1. InvestEU Fund: provides funds to, among others, local and regional authorities to support investments in sustainable infrastructure, research, innovation and digitisation, small and medium-sized businesses, and social investment and skills.
2. InvestEU Advisory Hub: connects project promoters and intermediaries with partners providing technical assistance to help projects reach the financing stage.
3. InvestEU Portal: presents an easily-accessible and user-friendly database of investment opportunities available within the EU.

InvestEU brings together different funds included in the EU's Multiannual Financial Framework (MFF) such as the CF and the ERDF for the implementation of transport, renewable energy, and other types of infrastructure projects. The InvestEU fund is managed through shared responsibility between the European Commission and national and regional authorities in Member States. **Local authorities can directly benefit from the Advisory Hubs to access support services to apply to the InvestEU Funds** for projects that comply with the InvestEU eligibility criteria set out in article 3 and 8 of the Regulation (European Parliament, 2021b).

The InvestEU programme, in addition to improved accessibility to EU funds, is a key instrument to mobilise private investments. InvestEU allows the European Investment Bank (EIB) to raise funds in the international capital market and to use these funds to finance large-scale projects, as well as smaller projects that do not attract private investments. Private investments can therefore be leveraged either by providing direct funds co-investing with public and private actors or by providing indirect instruments that share financial risks with public and private financial intermediaries, such as loan portfolio guarantees, on-lending or securitisations (Findeisen & Mack, 2023). These indirect instruments are beneficial in mobilising private investments, as they allow the sharing of project risks among public and private banks.

The **EU Taxonomy**, established through Regulation (EU) 202/852, defines the criteria based on which economic activities are classified as environmentally sustainable with the aim to boost private sector investments in sustainable projects. The regulation classifies the environmental activities according to the following **environmental objectives**: a) climate change mitigation and adaptation; (b) sustainable use and protection of water and marine resources; (c) the transition to a circular economy; (d) pollution prevention and control; and (e) the protection and restoration of biodiversity and ecosystems. Such objectives contribute to the EU Green Deal and contribute to the achievement of their climate and sustainable development goals. The Taxonomy regulation establishes **the four main conditions** based on which the economic activities qualify as environmentally sustainable, namely:

1. Making a substantial contribution to at least one environmental objective;
2. Doing no significant harm to any of the other five environmental objectives;
3. Complying with minimum safeguards;

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4. Complying with the technical screening criteria set out in the Taxonomy delegated acts (European Commission, 2022b)

Projects that comply with the criteria set out in the regulation shall focus on decarbonising the energy systems, building energy-efficient buildings, promoting low-carbon transportation and circular economy, as well as fostering sustainable land use.

Though the EU Taxonomy is still a voluntary measure, it allows national and local governments to better align their plans, policies and projects with sustainability criteria and foster innovation and pilot sustainable solutions within their communities that align with the investors' needs. At the same time, the EU taxonomy offers finance companies a common understanding of economic activities that can be considered environmentally sustainable, thus leading to greater certainty for investors and helping companies to mitigate market fragmentation.

From this point of view, the **Disclosure Delegated Act** (European Commission, 2021c) assumes a key role in facilitating taxonomy-aligned investments. The regulation helps investors assess the environmental impact of their investments and enhances the transparency of disclosure of their environmentally sustainable economic activities. By setting out Key Performance Indicators (KPIs) associated with environmentally sustainable economic activities, both companies and investors commit to a common framework. Non-financial companies declare and measure their environmental performance and their commitment to sustainable practices, while finance-sector companies report on the level of alignment of their finance activities with the Taxonomy, e.g. for instruments such as loans, advances, debt securities, or equity holdings.

In June 2023, the European Commission published a new **Sustainable Finance Package** (European Commission, 2023b) which complements the previous regulations and is meant to strengthen green investments by the financial sector, private companies' transition pathways and innovative technologies. The package strengthens the EU Sustainable Financial Framework put in place by the EC in 2021. The EU's first 'Sustainable Finance Package' (European Commission, 2021d) meant to increase the flow of private finance towards sustainable activities across the EU. The package aimed at enabling investors to re-orient investments towards more sustainable technologies and businesses, including through **the EU Taxonomy** and the Corporate Sustainability Reporting Directive.

The new 'Sustainable Finance Package' includes additional activities to the EU Taxonomy, recommendations for facilitating transition finance, and proposes new rules to increase the transparency of the sustainable investment market and providers of environmental, social and governance (ESG) ratings. The building blocks of the EU's sustainable financial framework include, among others, disclosure and reporting criteria for companies and investors, instruments to establish standards and labels for **Climate Benchmarks,** and the **EU Green Bond Standard**.

While the new Sustainable Finance package would not provide direct support to local and regional authorities, some of its key elements might foster further mobilisation of private finance for a transition to climate neutrality. The new and updated Delegated Act for the EU Taxonomy expands the EU Taxonomy to cover economic activities in four new sectors, namely sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. This might enable cities with investments plans aligned to the taxonomy to mobilise investments into a broader set of sectors and economic activities.

Additionally, the European Commission published its recommendations for facilitating finance for the transition to a sustainable economy. This document, while it is still non-binding, provides guidance for companies and financial institutions on how they can use the EU sustainable finance framework to channel investments into the transition. While it paves the way for a binding regulation in the future, in its current format, it already provides support and encouragement to private companies and different types of investors to channel investments into the transition.

In addition to regulation specifically targeted at sustainable finance**, sectoral standards for GHG emissions, clean and renewable energy, and energy efficiency** may have significant effects on the mobilisation of private investments for the transition to net-zero economies.

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Concerning the building sector, for example, cities have a high potential to transform the EU's building stock and address both the emissions coming from buildings and their inefficiency. The **EU Energy Performance of Building Directive** (European Commission, 2021e) aims to create a more sustainable and energy-efficient building sector and provides national and local authorities with standards on the energy efficiency of buildings. It encourages the use of renewable energy sources and promotes the renovation of existing buildings (Eurocities, 2021). By managing urban planning and a large portfolio of buildings, public administrations can leverage the potential to collaborate with building owners, construction companies and citizens to translate the directive's objectives for the building sector into tangible projects.

5 Perspective of financial institutions and climate finance experts on municipal net-zero investments

The following section summarizes the current engagement of the interviewed financial institutions with municipalities while shedding light on how they perceive the impact of EU regulation on their municipal business, and the perspective of the interviewed financial institutions and climate finance experts on opportunities and barriers for increased net-zero investments.

5.1 Status quo

The **interviewed public Financial Institutions and funding agencies** engage in financing and funding of cities in different ways according to their specific mandates. One primarily **lends to the municipalities, to municipal companies and to regions**. This includes lending for specific projects as well as for the general municipal budget. A second one functions primarily as a **promotional bank,** disbursing low-cost loans, grants and guarantees with the aim to support municipalities on issues such as housing, urban infrastructure, social infrastructure, agriculture, and forestry. This also includes the disbursement of EU funds. The **interviewed funding agencies support sustainable infrastructure projects**, including renewable energy, energy efficiency, water and transport, either within their home country or in Eastern Europe.

Case in point: Kommuninvest, Sweden

In Sweden, the credit market company Kommuninvest, which is jointly owned by owned by 280 Swedish municipalities and 14 regions, has more than 50% market share of loan financing to local governments. Through its high credit rating and stable outlook, it helps municipalities and regions to borrow more securely and inexpensively than each of them could individually. It also supports the development of financial management capacities in the local government sector. Kommuninvest is the largest issuer of green bonds in Sweden. The institution is currently in the process of gradually adapting the definitions of their Green Loans programme to the EU Taxonomy.

Box 1: Case in point: Kommuninvest, Sweden

All institutions actively engage with clients, civil servants and policy makers, regional and national authorities, other financial institutions, funding agencies and/ or other stakeholders at the municipal level. Often, that engagement is inherent in the institutional set-up and mandate of the institutions, due to their public ownership and mandate to support (sustainable) development.

The **interviewed private banks provide loans and credit lines to municipalities and municipally owned companies**, such as utilities. Whilst most of their business is relatively traditional, one of the banks is considering approaches for investing into nature-based solutions. **The interviewed investments funds and asset managers have specific focus areas for their investments**, e.g., holding a portfolio of real estate assets or exploring investments into new technologies such as energy storage solutions.

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Private banks mostly engage with municipalities and with other financing institutions in the preparation of (co-)financing agreements. At the same time, they **operate in a highly competitive environment that may limit partnerships**. Investment opportunities, including in net-zero projects, are driven **by the availability of bankable projects.** For credit directly to municipalities, opportunities for lending are determined **by the financial scope of the municipality**, which differs widely between municipalities and EU member countries and is impacted by issues such as the COVID crisis, migration, and inflation.

5.2 Impact of EU regulation

The **perception of the impact of EU policies on their funding and financing strategies was mixed** among the interviewed public financial institution. For some, the **impact of EU policies is felt mostly indirectly through the translation into national policies, regulations and funding programmes**. All interviewed institutions pointed out **the importance of the EU Taxonomy** for their operations. For real estate investments, one financial institution has, for example, observed that real estate investors have already started to adjust investment decisions in anticipation of stricter reporting obligations. At the same time, **unclarity remains about how to apply the taxonomy and other regulations at the local level.** Furthermore**,** there is a clear need for dissemination of relevant information and building respective capacities. Beyond the EU Taxonomy, **the wider EU sustainable finance regulatory package** was mentioned as relevant by one institution; another stated that the work of the Task Force on Climate-related Financial Disclosures (TCFD) is not relevant for their municipal business.

For **private financial institutions, regulation also has an important impact on investment opportunities, for example the Energy Performance of Buildings Directive**. However, there is often still a perceived lack of harmonisation of EU, national and municipal regulations and a need for clearer definitions and interpretation of regulations at the city levels. With respect to the application of the EU Taxonomy, similar to the feedback by the interviewed public financial institutions, private banks would appreciate a higher level of clarity around the application of the taxonomy. One interviewee mentioned as a barrier that, because municipalities are not obliged to report on the taxonomy, municipal loans cannot be included in the lending bank's Green Asset Ratio, which is the proportion of a credit institution's assets invested in EU Taxonomy-aligned economic activities as a proportion of total covered assets.[6]

5.3 Barriers for increased net-zero investments

The interviewed **public institutions noted that, generally speaking, investment opportunities are, to a large extent, directly linked to the budget availability of municipalities**. Issues such as COVID, geopolitical crises, and increasing inflation have put increasing pressure not only on municipal budgets but also on staff availability for planning of net-zero investments. These strains on municipal budgets and human resources are expected to continue to negatively impact opportunities for net-zero investments. One interviewee also expressed the concern that too strict sustainability requirements leave no flexibility for local solutions.

Challenges mentioned **by private financial institutions** include the low-quality of climate related data, including data on potential cost savings from energy efficiency improvements, physical climate risks and the complex policy landscape at the municipal level. Moreover, it was mentioned that the high level of technocracy and bureaucratic requirements in Europe poses challenges for a net-zero energy transition. One of the asset managers would appreciate stronger support for net-zero innovations from cities. In general, at the moment and due to the competitiveness of the lending business, **many banks predominantly respond to existing regulation and financial incentives rather than proactively pursuing additional net-zero investment opportunities**.

The interviewed **climate finance experts** also referred to the existence of **structural challenges in the public funding system**. Programmes designed at the national level are often limited in capacity and

[6] Although municipalities do not fall under the reporting requirements for the EU taxonomy, "Local governments financing" is included in the numerator and denominator of the Green Asset Ratio (Greenomy, 2023). For their lending to local governments, reporting banks will therefore have to distinguish between eligible assets, i.e. activities included in the EU Taxonomy Delegated Act, and non-eligible assets for their lending to local governments.

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highly fragmented. They are designed by ministries and their departments according to their political priorities, and therefore do not necessarily address specific demands from cities. At the same time, **governance structures and regulations in many municipalities are not suited to organise, manage, and digest funds and investments in the dimension and at the pace required for climate neutrality by 2030**. This includes the incorporation and management of private investments and the capacities to raise private capital. Further challenges related to blending public and private capital at the city level include different expectations in terms of risk management, guarantees, return on investment, payback periods etc. This poses difficulties in blending public and private investments successfully and at a larger scale.

Moreover, further barriers for cities in accessing public and private funds include:[7]

- Local governments have limited capacity and resources which impacts the ability of cities to lead effective procurement processes. Small cities lack personnel, financial expertise and technical skills; however, aligning operations with the EU Taxonomy requires additional resources.
- Local governments have insufficient time and capacity available to participate in calls for proposals for EU funding mechanisms and to complete applications in a foreign language.
- Within cities, numerous climate-related projects are frequently small-scale, dispersed and lack integration, thus making it challenging for them to attract investors. In addition, local governments might lack the technical expertise and administrative capacity to aggregate small projects into a portfolio of projects.

5.4 Opportunities for increased net-zero investments

The interviewed **public institutions anticipate that in the coming years, municipalities will increasingly engage with climate change issues**. One institution expects that there will be more opportunities for net-zero municipal investments **as climate change plans will be operationalised**. Overall, interviewees assume that **policy and planning decisions by municipal assemblies and municipal governments** will continue to be major drivers for investment opportunities.

The interviewed **private financial institutions expect that incentives for net-zero investments such as tax breaks, subsidies, and guarantees will continue to drive investment opportunities**. In addition, climate finance experts suggest that designing and operationalising a multi-project funding and financing facility may provide significant opportunities for increasing net-zero investments, because it addresses some of the structural challenges in the public funding system and related to the blending of public and private funds.

6 Recommendations for mobilising external finance for the transition to net-zero cities

Taking into consideration the current landscape of municipal climate finance, the regulatory environment at EU level and the perspective of financial institutions and climate finance experts on net-zero investment, the following provides **policy recommendations on improving the urban climate finance landscape** to support cities to become climate-neutral by 2030. These include **tangible recommendations for municipal policy making and integration into the city-level investment plans,** recommendations for technical assistance providers as well as a recommendation for designing and operationalising **a multi-project funding and financing facility**.

The following actions may support cities in mobilising additional external finance for their transition to net-zero economies:

[7] Note that these barriers are complementary to barriers identified in the NetZeroCities report "City climate finance landscape, barriers and best practices in city climate finance" (Bourgeois et al., 2022) which analyses barriers at the municipal level and barriers related to investment capital.

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- **Utilising existing relationships with financial institutions for net-zero investments and integrating the net-zero transition into standard municipal funding and financing processes:** There are already a variety of existing business relations between cities and private and public financial institutions, where financial institutions provide debt financing to cities and may also channel EU funds. Moreover, interviewed financial institutions have almost unanimously expressed an interest in increasing green investments. Existing financing partners may therefore be ideal first contact persons for additional net-zero investments, given that these investments fall into the general range of risk-return expectations of the financial institution.
- **Consulting with financial institutions during policy design**: Feedback from interviews with private financial institutions showed that often insufficient consideration is given to how policies put in place for net zero will affect investments. Private financial institutions should be consulted in the process of developing policy to ensure that impacts on private investment opportunities are considered in policy development.
- **Aligning municipal climate policy, climate action plans and 2030 Climate Neutrality Investment Plans with the EU Taxonomy:** The importance of the EU Taxonomy for defining which economic activities and investments are classified as environmentally sustainable is expected to continue to grow. The Taxonomy is also expected to increasingly become a reference point even for investments that do not fall under the scope of mandatory reporting requirements. Aligning municipal climate policy, climate action plans and the 2030 Climate Neutrality Investment Plans with the Taxonomy's definitions for sustainable and climate-friendly investments will therefore help in mobilising external finance.
- **Simplifying regulation and aligning municipal climate policy with national and EU regulation:** Several financial institutions have mentioned that high levels of technocracy, bureaucratic requirements and lacking harmonisation of EU, national and municipal regulations form barriers to net-zero investments. Whilst cities have little influence on bureaucratic requirements at higher levels of government, they may facilitate net-zero investments by simplifying municipal regulation and aligning municipal climate policy with national and EU regulation.
- **Setting clear and unambiguous, mid- and long-term policy signals beyond the current legislative period and building non-partisan consensus on key net-zero priorities:** Commercial financial institutions tend to react to available investment opportunities and value clear and unambiguous, mid- and long-term policy signals that extend beyond the current legislative period. Building non-partisan consensus on key priorities in climate action plans and setting mid- and long-term policy signals may facilitate the mobilisation of external net-zero investments.
- **Fostering knowledge exchange between municipalities and utilising existing technical advisory facilities**: There is a high level of complexity in the evolving EU and national policy landscape, as well as significant opportunities presented by new and/or innovative financing mechanisms. At the same time, the personnel capacities of individual cities to follow these trends are highly limited, especially in the light of additional pressure on human resources caused by COVID, migration, digitalisation and other issues. Exchange of knowledge, experience and best-practices between cities may provide valuable opportunities for time-efficient learning and knowledge management, especially if facilitated well.
- **Cities participating in the NetZeroCities programme are specifically recommended to make use of the technical advisory services offered by the programme**. The NetZeroCities programme intends to provide selected cities with dedicated support by world-class practitioners, that may address all aspects of systemic change through a platform providing online resources and tailored advisory inputs. To foster innovative ideas to achieve climate neutrality at city scale, NetZeroCities is also running a pilot cities programme with tailored, one-stop-shop support to help them amplify their capacities by providing knowledge and expertise, advancing a culture of transformative change, long-termism, strategic innovation, systems

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thinking. Moreover, a similar Twin Cities Programme will be launched to replicate solutions that work and pave way for direct peer-to-peer learning and exchange.

- **For the development of their 2030 Climate Neutrality Investment Plans, cities participating in the NetZeroCities programme are recommended to specifically consider external finance:** For a comprehensive picture on the current state of climate investments, it may be helpful to include external borrowing and investments financed by private actors in the section on existing funding and financing for climate action, and to consider external borrowing, private investments and contributions by funding agencies in the list of capital sources. To get a comprehensive picture of barriers to climate investments and to understand options for improving the enabling conditions for net zero investments, cities can interview financial institutions, private investors and funding agencies or engage these stakeholders through other formats. Such conversations may also be used to explore additional opportunities for these external funders and financiers to contribute to planned investments.

Providers of technical assistance, including the Cities Mission Platform, managed by NetZeroCities, can support cities in mobilising external finance. They can encourage cities to engage with financial institutions and investors during policy design and in the development of climate action plans and the 2030 Climate Neutrality Investment Plans. They may also facilitate such exchange formats as well as knowledge exchange on the use of external finance for net-zero investments among cities and between cities and financial institutions and investors. Moreover, they can share case studies and best-practices and provide technical advice on how external financing approaches can be tailored to the unique ways of how different EU cities access and utilise sources of funding and financing.

In addition, NetZeroCities is supporting the formation of **Mission Cities Capital Hub (MCCH), to support cities in realising their investment requirements and facilitate, at scale, different available public and private funding sources (Capital Facilitation Programme).** This Hub[8] will interact with EU institutions, Cities, and other public and private stakeholders, with the objective to facilitate the finances required by the Mission Cities according to their commitments done through the Climate City Contract (CCC) process.

Designing and operationalising such a facility in a way that it meets cities' needs in the context of their net-zero transition, would be a complex undertaking. The intent is to develop the Hub's Capital Facilitation Programme for capital deployment by enabling the involvement of various sources (Funding & Financial Platforms & institutions) and types of capital to finance city projects. The Hub will work as collaborative and non-competitive intermediary to attract the needed capital for the Mission projects, establishing an Investor Panel of different investors to offer commercial advice on the technical assistance to be provided to the cities and facilitate the capital raising dialogue between the committee and the Mission cities. Several points would have to be addressed in the design process including devolving decision-making power on the use of funds from the national and sub-national to the local level. The inputs from the experts interviewed as part of this task would contribute to the design of this facility and engage relevant stakeholders in each step of this process. The ultimate goal is to support cities to transition towards their net-zero ambitions.

Transitioning towards net-zero is a complex process that requires various stakeholders working in different sectors align their interests towards a common goal. Financing such aspiration is the critical need of the hour that would require innovation and implementation at scale. NetZeroCities programme is in a unique position to create that supportive framework towards a more sustainable urban development.

[8] 'Hub' and 'facility' have been used interchangeably in this section

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Bibliography

Bourgeois, M., Scalabrino, M., Charliyski, A., Solé, A., Castañeda, M., Diaz, A., Mendle, R., O'Rourke-Potocki, H.,Altman, N., Schneider, S., & Ingle, R. (2022). *City climate finance landscape, barriers and best practices in city climate finance.* NetZeroCities project. https://netzerocities.eu/wp-content/uploads/2023/01/D7.1-City-climate-finance-landscape-barriers-and-best-practices-in-city-climate-finance-V2.pdf

Climate Action Network Europe (2020). *Funding climate and energy transition in the EU: the untapped potential of regional funds – Assessment of the European Regional Development and Cohesion Funds' investments in energy infrastructure 2014-2020*. http://caneurope.org/content/uploads/2020/04/Funding-Climate-and-Energy-Transition-in-the-EU.pdf

Eurocities (2021). *Better buildings for climate neutral cities - The 'Fit for 55' revision of the Energy Performance of Buildings Directive*. https://eurocities.eu/wp-content/uploads/2021/09/Eurocities-EPBD_Policy-statement_FINAL.pdf

European Commission (2021, July 14). *Delivering the European Green Deal*. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal_en#transforming-our-economy-and-societies

European Commission (2021b). *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Social Climate Fund.* COM(2021) 568 final 2021/0206(COD). https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52021PC0568

European Commission (2021c). *COMMISSION DELEGATED REGULATION (EU) …/... supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation.* Document C(2021)4987. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=PI_COM:C(2021)4987

European Commission (2021d). *Sustainable finance package.* Retrieved August 28, 2023 from https://finance.ec.europa.eu/publications/sustainable-finance-package_en

European Commission (2021e). Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast) – Current consolidated version. *Official Journal of the European Union, L 153/13.* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32010L0031

European Commission (2022). *The 2021-2027 EU budget – What's new?*. Retrieved August 28, 2023, from https://commission.europa.eu/strategy-and-policy/eu-budget/long-term-eu-budget/2021-2027/whats-new_en

European Commission (2022b). *EU Taxonomy Navigator*. Retrieved August 28, 2023 from https://ec.europa.eu/sustainable-finance-taxonomy/

European Commission (2023*).* Commission Recommendation (EU) 2023/1425 of 27 June 2023 on facilitating finance for the transition to a sustainable economy*. Official Journal of the European Union, L 174/19. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023H1425*

European Commission (2023*b). COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A sustainable finance framework that works on the ground.* COM/2023/317 final. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023DC0317

European Court of Auditors (2022). *Climate spending in the 2014-2020 EU budget - Not as high as reported - Special report.* https://www.eca.europa.eu/Lists/ECADocuments/SR22_09/SR_Climate-mainstreaming_EN.pdf

This project has received funding from the H2020 Research and Innovation Programme under the grant agreement n°101036519.

European Parliament (2021). 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 and the European Maritime, Fisheries and Aquaculture Fund and financial rules for those and for the Asylum, Migration and Integration Fund, the Internal Security Fund and the Instrument for Financial Support for Border Management and Visa Policy. *Official Journal of the European Union, L 231/159. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R1060&from=EN*

European Parliament (2021b). REGULATION (EU) 2021/523 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 March 2021 establishing the InvestEU Programme and amending Regulation (EU) 2015/1017. *Official Journal of the European Union, L 107/30. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0523&qid=1617090511360#d1e2949-30-1*

European Union & UN Habitat (2016). *The State of Europe Cities*. doi:10.2776/770065. https://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/cities-report/state_eu_cities2016_en.pdf

Eurostat (2022). *Urban-rural Europe - demographic developments in cities*. Retrieved August 28, 2023, from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban-rural_Europe_-_demographic_developments_in_cities

Findeisen, F., & Mack, S. (2023). *Do more with more - How the EU can improve funding for the European Green Deal.* Hertie School. https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20230525_Mack_Findeisen_EuropeanGreenDeal.pdf

Gancheva, M., Gustafsson, O., McGuinn, J. (2021). *Financing the Green Deal: a toolbox for the implementation of the Green Deal.* European Committee of the Regions. https://cor.europa.eu/en/engage/studies/Documents/financing-the-green-deal-a-toolbox-for-the-implementation.pdf

Greenomy (2023). *What is the Green Asset Ratio and what will it mean for banks?* Retrieved September 19, 2023 from https://greenomy.io/blog/green-asset-ratio-what-it-means-for-banks

IPCC (2022). *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK and New York, NY, USA: Cambridge University Press. doi:10.1017/9781009157926

Negreiros, P., Furio, V., Falconer, A., Richmond, M., Yang, K., Jungman, L., Tonkonogy, B., Novikova, A., Pearson, M., & Skinner, I. (2021). *The State of Cities' Climate Finance.* Climate Policy Initiative. https://www.climatepolicyinitiative.org/publication/the-state-of-cities-climate-finance/

NetZeroCities (2022). Finance guidance tool. https://netzerocities.app/financeGuidanceTool

OECD (2020). *OECD Regions and Cities at a Glance 2020*. doi.org/10.1787/959d5ba0-en. https://doi.org/10.1787/959d5ba0-en

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Annex 1 – Interview guide

III. Interview question: General questions ***(Note that questions were adjusted to interviewees)***	
Topic	**Questions**
Investments and projects	What type of products do you offer in the municipal context? What strategic approach is guiding your funds and asset portfolio? Which (main) criteria influence the selection of these investments (bankability, ROI, term, size, social and environmental criteria, etc.)? Are the investments standardised products or individually developed for specific purposes (projects, portfolios)?
	How attractive are “ready-made” project portfolios in this context? What advantages and disadvantages do you see here? Are they of interest to you and how would they ideally be designed to gain your interest as financier? (Project sizes, creditors, diversification, stakeholder engagement, etc.)?
Green and sustainable criteria	How important are environmental and green criteria in your context? If so, what mandates this, do you have certain targets as part of your strategy or is this driven by (inter)national regulation?
Policy and regulation	How much is your business influenced by EU and national regulations? Which of the following EU-wide regulations is particularly relevant to you? • EU Taxonomy & EU sustainable finance package • SFDR • CSRD / NFRD • EU directives (e.g. renewable energy sources directive) • Fit for 55 • TCFD (TNFD) Please list any other regulations or policies that affect your work on climate finance (in cities) (incl. national regulations). Are they supporting and facilitating your work or do they create obstacles in the successful funding of (municipal climate) projects?
	How much do the above-mentioned regulations influence possible capital flows in the context of climate finance projects? Which aspects facilitate project financing and which create hurdles in the timely, efficient implementation of important projects on the path to climate neutrality? How clear and helpful do you consider the EU regulations for local implementation? In your opinion, do they support climate finance capital flows (to cities)?
Cooperation with cities and municipalities	What does your cooperation with municipalities and municipal stakeholders look like in concrete terms? Who do you engage with (municipality, utility companies, sector companies, etc)? How is your dynamic specific to the municipal landscape in your country(ies) of operation and your specific mandate? How much cooperation vs. competition? Do you work directly with municipalities or via local financial institutions? How would you describe your relationship with the municipalities, is it more of a “push” or “pull” relationship?

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	What type of risks do you consider in this context? Can you provide 2-3 examples?
Municipal finance policy landscape	From your experience, what are the hurdles in (large-scale) financing of the transformation of cities towards the climate neutrality target and how do you deal with them; what solutions and practices enable easier and more effective implementation of climate financing? (e.g. municipal debt limits; local, regional and national regulations and criteria for financial planning; integration of the economic aspect in climate accounting, etc.). Can you give examples of this? Are there measures that cites can take to reduce the funding barriers? What could other funders / investors / cities learn from your example?
	What more would you like to see cities do to finance sustainable projects and accelerate the Net Zero transformation of cities? (_) Bankable projects (_) Climate projects with a larger scope / a larger number of project proposals (_) Bigger ticket sizes (_) More cooperation beyond the traditional borders (cross-city, cross-sector, cooperation between politics and industry, EU and national, etc). (_) others:
Other partnerships	How does your cooperation work with other initiatives and institutions ((D)FIs, ELENA, private FIs, other initiatives) to pool resources? - Who do you work with and why? - Could this be an opportunity? Under what conditions would you want to work together even more, with whom and to what end? Please give 2-3 examples of cooperation
	Under what conditions would you consider operating in a new sector within a city (funding/investment) and what would lead you to do so? Please name obstacles you encounter when you want to work in adjacent sectors related to climate adaptation or energy transition and name conditions under which you would consider cooperation. What could a project like NZC offer you to increase your climate investments in cities?

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Annex 2 – Interviewed financial institutions, funding agencies, investment funds and asset managers

Interviewed public financial institutions included:

- WIBank: a state-owned development bank in Germany that provides financing and funding solutions for local authorities and businesses.
- Kommuninvest: a Swedish local government funding agency that provides funding and financial services to local authorities and municipalities.
- REDO: Italian Social Housing Fund
- Klima+Energiefonds: Austrian public fund to support energy transition
- SECO: a federal government center for economic affairs in Switzerland that promotes sustainable development and poverty reduction through economic partnerships and investments.

Interviewed private financial institutions included:

- Sparkasse: a network of public banks in Germany that provides retail banking services to individuals and small businesses.
- DKB: a private bank in Germany that provides retail banking, investment banking, and real estate finance services.
- Triodos: an investment fund in the Netherlands that invests in sustainable and ethical projects, such as renewable energy, organic farming, and fair trade
- Investec: a UK-based investment banking and wealth management group that provides financial products and services to private clients, institutions, and corporates.
- Man Group: a UK-based global investor in private markets that manages and invests in a range of assets, including private equity, real estate, and hedge funds.
- Netherlands-based Angel Investor: an angel investor based in the Netherlands that provides early-stage funding to start ups and emerging companies.
- Philea - Philanthropy Europe Association: Philea is leading platform for philanthropy in Europe, working to strengthen the sector of institutional philanthropy as a formidable means of effecting change.

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Annexure 3 – Summary of Interviews of financing institutions and financing experts

Interviews were conducted over a broad spectrum of external stakeholders that provide financing for cities for the purpose of identifying barriers faced by financing institutions while financing Carbon neutral municipal projects. The interviews are anonymised for the purpose of reporting.

Public sector financing institutions

WIBank, Germany

Actors and Partnerships

WIBank engages with other promotional banks. Therefore, it has many sources of funds. It is also interested in seeing more bankable projects from cities to accelerate transformation. Additionally, WIBank would like to see a platform that offers transparency and case study materials that can offer guidance, especially for smaller municipalities.

Challenges

There are many hurdles: Manpower/capacity shortages, skills shortages, refugees, inflation, etc. This crisis mode also causes capacity problems. Furthermore, Sustainability is more of a hurdle. The requirements take away a bit of the flexibility that one used to have. If different funds are used, different donor requirements need to be met.

Climate Finance Policies

Relevant regulations: EU Taxonomy, - ECB Guide - EU directives only indirectly - Budgetary policy (only rarely, exceptional case: Corona funding, lawsuits, etc.) The WI-Bank does a lot with capital market refinancing and is therefore freer TCFD is not relevant.

SECO, Switzerland

Actors and Partnerships

Focus mostly on Balkans and Ukraine. Partnership also depends on the type of project. SECO works with IFI to support sustainable projects. Risks considered are the multi-city approach. Rather than focusing on grants, the focus is now on technical assistance and capacity development.

Challenges

Stakeholder engagement and participation is definitely a challenge. Even more with climate change. Offering data to the planning department. Also align with civil society. It complicates the process but part of a necessary dialogue. Overall objective is to improve access to services. Challenges in eastern europe is budget availability. Investment is coming in at the national level. SECO focus is on smaller cities and "secondary" cities.

Opportunities

Climate adaptation and mitigation gaining weight, following Swiss national / govts guidelines.

Types of Investment

Focus of investment is on economic infrastructure, water, electricity, transport.

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Kommunivest, Sweden

Actors and Partnerships

Collaborating with other financial institutions – other public funding agencies, primarily in the Nordics and Europe – knowledge exchange and market activities, lobbying. Example municipality finance of Finland.

- The Agency does not engage in co-financing.
- Process of engagement: both proactive and reactive. Relationship with municipalities both as clients and as owners.
- Contact on the client level: reactive and proactive
- Ownership level: proactive – about running the credit institution and governing it.
- Risk considered is the credit risk

Challenges

Main challenge is to have a sufficient capital base to be able to expand.

Climate Finance Policies

Affected by Taxonomy and other EU policies. These policies are clear in ambition but unclear in implementation. Regulation helps the agency to be engaged in financing investments at local government level, designed to support SDG at city level, Municipal governments (both with civil servants and political level), with regional authorities (form part of the membership and client base), and direct links to the national government – work with financial supervisory authority for instance and the Swedish national debt office.

Opportunities

- Inside green finance programme – projects that are designed to meeting LG sustainability objectives. Some projects aligned with net zero – no evaluation of abatement potential.
- Green eligibility criteria – which have been in place since 2015 will gradually become aligned with EU Taxonomy and as the agency progresses then, then more aligned with net-zero objectives.
- Not looking at abatement potential of measures in the green bonds
- Aiming to understand long-term objectives of the clients
- Highly decentralised local governments – investment decisions taken by elected assemblies

The agency as credit institution does not have the mandate to veto what is decided at local level. Their role: repayment check + increasing regulatory requirements to include sustainability criteria in their business, understanding financial risks and opportunities related to sustainability and how that might impact clients.

Klima- und Energiefonds (KEF), Austria

Actors and Partnerships

There are too many subsidies throughout Europe. It is particularly important to standardise this. The KEF can theoretically also borrow private funds (similar to a foundation in Germany).

Challenges

A lot of KEF money goes into the promotion of Photovoltaic(PV) and Renewable Energies(RE) and only less into the actual promotion of innovation and technology. The money is not the problem, with all the subsidies (also from the EU side) the problem is rather to deal with the broad spectrum. On the project side, there is a lack of know-how to tap into the money.

Climate Finance Policies

Taxonomy is more of a strategic issue. The taxonomy is already having an impact. There have already been the first investors who have sold real estate in Vienna for fear that such strict regulations will come. At that time, regulation did not yet apply. The KEF could prepare information or build tools to close knowledge gaps.

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Opportunities

- What is climate neutral? It is important for project developers to have clarity. Politicians must find a clearer language here and not make contradictory statements.
- To use the knowledge and bring it into the companies. In other words, to form projects with the companies
- Create clarity regarding financing and subsidies

Types of Investment

PV, RE, Heating, cooling, Transport.

Motivation and Incentives

As a financier, KEF prefers to work with industry. Cities should consider what their key points are. After that, they should get in touch with the companies that could implement it. Alliances are needed. A strong urban policy is needed. All departments and departments need to pull in the same direction (architecture, construction, public utilities, etc.).

The KEF is closer to the companies than to the cities. The KEF makes less financing (especially since a city like Vienna does not need financing – it has better conditions on the capital market). KEF is more about funding, advice and knowledge.

Private sector financing institutions

Investec UK

Challenges

Challenges related to data quality, physical climate risks, complications with EPCs (Energy Performance Certificate) and stress tests, and assessing risks related to floods and green infrastructure can be challenging. There are also complex politics involved.

Climate Finance Policies

Government policies put actions by financial institutions.

Motivation and Incentives

Incentives are metrics for sustainability such as EPC. Investors should consider the risks from climate change and natural disasters when making investment decisions. Assets in the NetZeroCities space represent one of the largest exposures for financial institutions, as real estate and real Assets are slow-paced sectors that require careful consideration of risks and opportunities. Overall, the company suggests that investing in NetZeroCities Assets can provide an opportunity for sustainable investment, while also requiring careful consideration of risks and metrics for sustainability. Need to create structures that incentivises normal investors rather than targeting impact investors. Governments can help where there are gaps in national government policies.

Man Group UK

Challenges

Everything in Europe is quite technocratic. Often the policies that have been designed have been designed without execution in mind (by policy makers and academics) making it difficult to engage.

Climate Finance Policies

There is a lot of talk about this kind of initiative by governments to support NZC initiative, but little has been appearing in budgets to support. Most action is taken at a policy level, but these often aren't appropriately targeted.

Types of Investment

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Don't currently have working with cities or NBS (Nature based Solution) in mandate, not sufficient cash flows and we mostly look at public equities. There is a slight price discrepancy in NBS carbon credits and others.

Netherlands based Angel Investor

Challenges

Complexity of operating dynamics makes it complicated to get everyone on the same page for energy transition. In the time period of planning pipelines from RFPs a lot of different stakeholders move out of place in the process which means that as people exploit the subsidy the implementation can be delayed, and execution can be really challenged.

Opportunities

In the time period of planning pipelines from RFPs a lot of different stakeholders move out of place in the process which means that as people exploit the subsidy the implementation can be delayed, and execution can be really challenged

Types of Investment

Work that can attract investments:

- Academic spinouts from universities have great IP
- A lot of these can't get investment / struggle to commercially execute. Cities need to make more of an effort to commercialise these innovations.
- Start-up side we have the innovations and then we have a complex ecosystem that means things aren't commercialised properly

Motivation and Incentives

- Different incentives should be considered to increase return on investment.
- Decreasing risk can be looked at in tax breaks and including an impact slant to it. Subsidy incentive that can be worked into it? Guaranteeing the investment or matching the funding with first loss may work?
- Some innovation funds have matching funds in the Netherlands (EIS incentive in the UK for instance works with attracting small company investors)

Tridos Netherlands

Challenges

Have found that most banks don't look at interesting new ways of investing in net zero. They like to invest in what they know rather than the new innovative classes

Climate Finance Policies

Company's view is that the current policy landscape for sustainable investment is still in a transitional period, and that there is a need for more comprehensive and effective regulation that incorporates NBS and biodiversity and provides clearer guidance for investors to pursue sustainable investment strategies.

Types of Investment

Focus of investment is energy transition side. Triodos bank has been lending for two to three decades on green mortgages to houses with higher energy ratings, and from their perspective, it is something pushing forward. NBS and biodiversity are in the pipeline from our side in the longer term, project teams are looking at it, but how you value it and price this in a portfolio to offer to investors (tracking against a benchmark) is complicated. Need to convince MSCI to create a benchmark and I'm sure everyone will contribute.

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Sparkasse, Germany

Actors and Partnerships

There is contact with cities and municipalities and the utilities. In projects with utilities and municipalities, the city does not always have to be involved. There are also deals that are closed independently. The relationship dynamic between the city and Sparkasse is very much at eye level. Sparkasse is one credit institution among many and has no special position and competes with all other banks, despite the city being on the bank's board.

Challenges

Regulatory issues are not the biggest challenge in lending to cities. It is rather the cash flow and repayment capacity of projects that can be problematic.

Types of Investment

The overall investment volume in sustainable municipal investments requires several factors, including policy changes to remove obstacles in capital flows and create investment for a climate neutral transformation. However, the company emphasises that having bankable projects is crucial to attracting investment.

The company also notes that having the city act as the sponsor and be liable for the project is a great advantage. Cities have a different credit rating than private-sector companies, which can help in attracting financing for projects. However, it is not enough if the city only ""promotes"" a project."

- Types of investments made: Mainly loans or credit lines.
- No strong particular focus on a type of asset, at least not a visible one. Depending on the size of the Sparkasse and project, different banks have to cooperate. There are upper limits that a bank may not finance alone, depending on its size. The upper limits are determined by the regulatory framework.
- Transformation financing is the overall objective of the Sparkasse. Therefore, not only green projects are financed, but also traditional ones.
- Bankability of project is the number 1 criteria which influences the company's work with communities.

DKB, Germany

Actors and Partnerships

There is a backlog of investment in schools, roads, broadband expansion, bridges and digitisation. The investment backlog does not exist because the money is not available from the banks.

When a bank has to finance a project, it naturally wants to do it cost-effectively. It will first go to a development bank. Classic municipal loans are not project-linked or a type of project financing - from there, the bankability of the projects is not really relevant.

Interested in further exchange on NetZeroCities. But climate finance is driven a lot by politics and regulation.

Challenges

The lending business is already very competitive.

Climate Finance Policies

DKB is very much affected by regulation. In the EU taxonomy, municipalities are not even considered as an economic sector. Municipalities are not affected by any obligations. As long as the municipalities are not under any obligation, a bank cannot use these projects in its reporting. For example, municipal loans cannot be included in the GAR (Green Asset Ratio). It would help a lot if the municipalities also had to report in this form.

The EU-wide, federal and state funding programs are not included in their offer for the classical Municipal Client Business (MCB). The importance of environmental, social and green criteria in the context of

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product design is not mentioned, as the answer focuses on the absence of regulatory and legal frameworks related to funding programs. The support for Public-Private Partnerships (PPPs) may vary among federal states, but this is driven by politics rather than regulation.

Motivation and Incentives

The municipal client sector makes up a large part of their business and is low-risk due to the legal form of municipalities. They offer standardised products in this area, with some flexibility. They also work with energy-saving contracting in the energy efficiency sector, but this makes up a small part of their business. The company notes that policy changes and obligatory targets may create more drive for sustainable investment, as banks cannot exert significant pressure due to competition.

REDO, Italy

Actors and Partnerships

REDO were among the first in Europe to initiate a climate-eligible financing of 400 million with EBI European Bank of Investments and Banca Intesa Sanpaolo to finance part of the most challenging of the interventions we are managing: the conversions of abandoned offices into residences, deep renovation projects with reuse of structures, and the carbon-neutral projects that won the Reinventing Cities.

With our partners EFL European Federation for Living - a network and community of practice among other social and affordable housing stakeholders in Europe, formed by both public and private bodies that universities and research centres, or with the Climate KIC community of which we are members, to apply to different ELENA or Horizon calls as grants that can support the consolidation of skills, know-how, in this particular sector of real estate that has in the right transition its mission. For example, training internal energy managers who can influence the product in both the design and operation phases. Or research from both technical and legal and administrative perspectives how to apply, in the absence of appropriate regulations, existing urban planning and building permitting rules to implement positive energy district.

Challenges

Relations with the municipality are very complex because the municipality is our counterpart that sells us its properties or temporary landlord rights, but as it also acts as a regulator for the urban planning and construction part of our projects, it is the entity with which REDO has to negotiate the offset works (roads, parking lots, schools, parks, etc...) and establish guidelines for decarbonisation.

Some factors create barriers to carbon neutrality:

* building regulations for energy efficiency not yet aligned with integration with private district heating and CER.

* training gaps for designers and builders.

Harmonising and completing the regulations from Europe to the city through national and regional regulations should be the task of the public, including tying the continuing education of all supply chain operators to climate change mitigation and adaptation construction strategies.

Climate Finance Policies

Italian and EU law highly influence Real estate investments and development under different points of view:

- financial
- business (assets' project and development, construction and operational management)
- mission and governance of the Company that lead the Redo's overall approach while doing business, apart from policy and regulation.

Opportunities

packages of public grants to enhance the social impacts of projects: for example, using Next Generation EU funds to lower rents for the same cost. This means that I put a public contribution into the assets of

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an asset without it being able to be recorded as a dividend to investors but coming directly into the tenants' pockets. So ultimately it would be attractive to bundle well-priced distressed assets combined with contribution bundles to enhance affordability for tenants.

Types of Investment

Real Estate : residential Buildings

Motivation and Incentives

The Zero Carbon goal is being pursued by employing various tools and strategies, which include energy efficiency plans, the use of innovative building systems, the enhancement of sustainable mobility systems, the activation of renewable energy communities (communities that consume, produce and supply others with self-produced energy using renewable methods) and services such as Circular Housing and urban reforestation interventions.

Philea, Italy

Actors and Partnerships

Philea plays a role in facilitating collaboration among foundations through thematic working groups, such as the Funders Forum for Sustainable Cities, where good practices and strategies are exchanged. While foundations finance initiatives/projects alone, Philea encourages alignment of strategies among its members.

- Philea's member foundations have roots in the local context and work closely with municipalities and regions.
- Philanthropic organisations collaborate with local governments, businesses and community organisations by convening and providing knowledge, expertise, funding, investments and implementation support.
- Philanthropic organisations consider and orchestrate unusual collaborations among business, public authorities and civil society. These collaborations could support cities' efforts to achieve climate neutrality.

Challenges

One of the key challenges that philanthropic organisations face in supporting climate action in cities is the lack of explicit climate action provisions in their foundation statutes. Climate concerns may not always be integrated into the core mission and objectives of these organisations.

Climate Finance Policies

- Climate is one of Philea's cross-cutting themes, and they actively contribute to initiatives such as the EU Climate Pact and the Social Economy Action Plan.
- While sustainability efforts are influenced by policies, Philea does not focus on influencing policy due to the diverse needs of its members.
- Some members signed on to climate commitments at the national or international level, demonstrating their commitment to sustainable and climate action. In this context, Philea is part of the Philanthropy for Climate, a global movement of foundations committed to taking urgent actions on climate change, and has also links to the European Community Foundations Initiative.

Opportunities

- Philea, with its cross-cutting theme on climate democracy and equality, is well-positioned to play a significant role in the Cities Mission. Philea's Manifesto, which advocates for the introduction of a single market for public goods and emphasises civil dialogue, positions philanthropic organisations as key actors in addressing societal issues. Philea's focus on climate aligns with the goals of the Cities Mission and its involvement in regional and local ecosystems could further support the achievement of the Mission at local level.
- Philea promotes collaboration with public institutions and engages in issues-based advocacy. The organisation also works towards creating an enabling environment for philanthropy, addressing barriers to cross-border investment for the public good. Currently, there are barriers

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and restrictions that limit foundations based in one Member State from investing in public goods in another Member State. By enabling cross-border philanthropic investments, both public and private funding can be mobilised to support cities' efforts in achieving carbon neutrality. This approach recognises the need for diverse funding sources to tackle climate challenges in cities. In addition, it is worth noting the important role played by the Fondazione Compagnia di San Paolo based in Torino (Piemonte region, Italie), who is is driving the work on trying to involve foundations interested in working with cities. The fundations based/active in any of the 112 cities and with a focus around sustainability/climate action are:

- European Climate Foundation (The Hague)
- Realdania (Copenhagen)
- Gulbenkian (Lisbon)
- King Baudouin Foundation (Brussels)
- Maj and Tor Nessling Foundation (Helsinki)
- Tiina and Antti Herlin Foundation (Helsinki)
- Fondation Carasso (Paris)
- BMW Foundation Herbert Quandt (Munich)
- La Caixa (Barcelona)
- Bodossaki Foundation (Athens)
- Fondazione Cariplo (Milan & Bergamo)
- Fondazione Compagnia di San Paolo (Turin)

Types of Investment

- From an investment perspective, the foundations have different asset allocation strategies, some more local and others taking more general approaches to asset allocation. They could also engage in different types of investments in the municipal context, including scaling up pilot projects.
- Philanthropic organisations ensure that their investments in climate action align with community priorities by engaging in ongoing exchanges with local communities, emphasising community engagement and civil society involvement.

Motivation and Incentives

- Philea recognises the importance of leveraging knowledge and expertise from initiatives like NetZeroCities (NZC). In fact, the NZC City Advisors could play a crucial role in linking philanthropic foundations to the cities involved in the Mission. Through their established contacts within the cities, the NZC City Advisor could potentially facilitate dialogue and exchange between the cities and foundations, fostering collaborations and partnerships. The support provided by philanthropic foundations could be mentioned in the Investment Plan of the Climate Cities Contracts (CCC), highlighting the crucial role of private investments in achieving the Mission's goals.
- Philanthropic organisations have the potential to bring not only financial resources but also valuable knowledge and expertise to the cities, and they could potentially even second experts to work alongside the cities in implementing climate activities.
- To ensure effective collaboration, Philea needs to initiate a conversation with the cities of the Mission. By thinking broadly about what foundations can offer to the cities and engaging at the Climate City Contract level, Philea can establish a framework for fruitful partnerships and maximise the impact of philanthropy in supporting cities' efforts.

Finance Experts

ICLEI Finance Expert 1

Actors and Partnerships

We are working with a lot with Co-creation, civil society engagement in different ways. At the moment I still see that cities still see themselves maybe too much as local governments and are too much focused-on things that they can influence directly and they're less seeing the city as a system of actors that they need to manage, that they need to activate in order to reach the goal. I think these needs maybe a few steps. And we need still to structurally work on that to say, that this is a societal task, not of the city as

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a government. This is to manage a societal urban system which includes all these actors, and to move this system in a particular direction. It's also activation and then this feeds back into the financing, and this is why also financing needs a wider perspective than the public budget.

Challenges

I think we have to just acknowledge that in the 27 Member States we have most likely 27 different ways of how local governments are financially sourced. There are different balances between direct local taxes, taxes and fees and fiscal transfers from upper levels of government. That's the first question. Second one is of course, guidelines that are regulating from a constitutional point of view how local governments are sourced and financed, which regulation applies regarding limits in our regulating public budgets and the debt limits. Because I think this is particularly important when you investigate leveraging in private financing.

Then we have to, which is not part of this exercise, look into structural solutions to overcome this, but this is currently one of the key factors when you look from a public financing side on the private financing side then these are certainly factors that are very important. And that of course impacts how individual cities in different countries can or cannot deal with certain aspects of financing.

Then what are your targets for working at city level, if any. For us as an international organisation working across countries there are various as we have thousands of cities that are developing/ have developed targets and commitment through the Covenant of Mayors. Other cities have individual targets in more and more. Now we see that nationally determined contributions are starting to trickle down and and are asking cities to make their contributions. And of course, we have then the ambitious goals of the vision for climate neutral and smart cities, which is basically climate neutrality by 20-30. But of course, we see a lot of cities that are 2035/2040. It's increasingly felt that climate change is ongoing, and that adaptation becomes an important factor. Of course, it's more strategic and less target in that sense, to define the target for adaptation is not as clear as a greenhouse gas emission reduction goal. But we see increasingly that cities are formulating and looking into adaptation and resilience strategies.

I fundamentally disagree with the notion of social sustainability. Because there is no social, there is one sustainability which has to make sure that environmental boundaries are respected with all the economic development and the social balancing has to happen within the whatever planetary or environmental boundaries provided by our planet. Social sustainability is ultimately an economic distribution question that has to be addressed within the consequences of the measures that have to be taken in order to protect our climate and to adapt to climate change. But it cannot be that we trade off necessary measures due to potential social impacts because social impacts have to be solved by social equity measures, this is a question of taxation and income regulation. There are a lot of of issues that impact on the social side. If people are poor, they are struggling, always more with everything, whether the food price goes up or the energy price, or the public transport price. People who have money can deal with everything. It's the social equity side that has to be put into perspective and this is why we need cross cutting perspective on the policies that we're taking and this is also why we cannot do a climate policy by a climate and energy ministry without basically affecting the whole government to see also what we have to do potentially on the social side, on the education side. This is also why we we still are from a governance point of view often missing that perspective. I think this might be addressed further down.

Climate Finance Policies

Policies such as Fit for 55, Energy Efficiency Directive are influencing a lot on the side of the building renovation and the local policies regarding housing and building development. And of course, the Renewable Energy Directive as well, because that's also something that you can still influence quite a bit on the local level.

To a lesser extent of course the EU taxonomy as such, because it's of course the steering, the flow of private financing towards more investment, of course in climate change, mitigation, adaptation etc. Might also increase the availability of private financing for our public sector and ultimately, it's in its early stages.

TCFD, because it will inform local governments in the end about the climate related risks that they carry in the budget might also help to guide investment decisions and investment priorities. However, when we must consider that this can also be or carry a risk for public governance because it might influence their ratings, particularly in relation to the private investment markets.

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Then, if we look on missing parts or in relation to the regulation that is available on or coming from the EU level, I think we're missing a clear link to programmes on investment funding. Of course, there is a large basket of ERDF funding. There is RepowerEU. There is still recovery funding and now of course we are also discussing a response to the inflation Recovery Act, or whatever it's called from the US, in terms of guiding state aid, priorities in subsidising innovation, particularly also in the field of energy and sustainable urban or sustainable technologies.

The problem that we see is that none of these programmes are directly accessible for cities on the European level. But they're all running basically through national government. And so that is a level that is not considered here. So, from the perspective of the local government, ultimately you know the European financial frameworks in a certain sense, play a minor role because ultimately it will depend on the priorities set, the distribution mechanism, the access mechanisms that are set up for all these funds on the national level, sometimes, even on the subnational level. In particularly when it comes to ERDF funds, as well as the administrational procedures that come with that.

On the financing there is no direct accessibility besides potential programmes of TIB which are currently also only, I think Elena is mentioned further down which is a project preparation facility but not an investment fund financing facility. And secondly, basically in both terms, all these directives are ultimately legislative, but they're still interpreted towards local governments by national and sub national governments, the same applies to finance that is flowing from the European level, but it's not directly accessible. So it's also coming through national or sub national level to local governments and that is both in terms of administrative burden, accessibility and of fragmentation of some of these flows an issue that comes with multi-level flow and multi-level administration.

With regards to Taxonomy we can clearly see both from a European perspective, the Union perspective, that the taxonomy is having an influence and and is leading to the reorientation regardless of whether there are or there are not some loopholes that might or might not be closed. And there are some issues like gas or nuclear, which are still in that sense under legal challenge now. But I think from the financing industry it is clearly noticeable that there's a reorientation. And also when you look from the international level, there is a big awareness and incorporation of ESG as well. And again from a public and a city level perspective, there is not a question so much about the flows being in that sense redirected towards climate and sustainability issue. It's the structural preparedness regarding digesting larger amounts of private investment than has been the case up to now. I think we might have to touch upon this later on in terms of other regulatory frameworks that play into that. And which limit in that sense? Currently I would say Private investment engagement in public infrastructure development.

Secondly, I think we might see a regulatory framework on the European level that is to a certain extent sufficient. The question is how this Framework or guidance is really arriving on the local level, how it is translated to the local level, how it is interpreted on the local level. And again, we have to acknowledge that in many countries the European frameworks are particularly, as long as they're not clearly of a legislative nature, are to a certain extent interpreted differently. And when you follow discussions in countries about policy priorities or changing of particular strategies, it's sometimes difficult for local governments to fight for clear orientation or deriving clear orientation from the European level unless provided with supporting guidance to also develop potentially some pressure and clear ideas from the bottom up. So, that I think is one of the challenges that we see and then of course the question is in that sense, how much is influenced by national politics or priorities and their relationship to European policies and maybe lesser by the demand that is resulting from strategies that are developed on the local level. So, the question is how responsive are the frameworks on the national level to strategies that are coming from the local level.

Opportunities

Elena again it's not financing, it's a project bankability facility, but it's not necessarily the investment itself. So, it can be helpful to further develop maybe something that is part of an investment plan, but the scalar numbers here are still limited. Secondly, this whole challenge is mainly, an issue that needs to be structurally solved and that's something that we have to work on. It's something that has to be solved outside or parallel to the municipal governance structures or outside the usual public budget. But also, on a multi project basis you can do SPV and PPP models for any individual project. But for the challenge that we are having in terms of a fully developed investment plan we would most likely need a bigger structure here and this is then a multi-level governance exercise that we would have to go through because it's really affecting the regulatory frameworks but it's also affecting management structures, competencies, levels of democratic control of particular parts. But I think it´s unavoidable to address that

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to effectively leverage in private capital. Otherwise, this is exactly the critical point where the scale that we need is most likely not possible to be realised if we don't manage to address these in a governance and management way, making some more fundamental structural changes.

Types of Investment

Elena again it's not financing, it's a project bankability facility, but it's not necessarily the investment itself. So, it can be helpful to further develop maybe something that is part of an investment plan, but the scalar numbers here are still limited. Secondly, this whole challenge is mainly, an issue that needs to be structurally solved and that's something that we have to work on. It's something that has to be solved outside or parallel to the municipal governance structures or outside the usual public budget. But also, on a multi project basis you can do SPV and PPP models for any individual project. But for the challenge that we are having in terms of a fully developed investment plan we would most likely need a bigger structure here and this is then a multi-level governance exercise that we would have to go through because it's really affecting the regulatory frameworks but it's also affecting management structures, competencies, levels of democratic control of particular parts. But I think it´s unavoidable to address that to effectively leverage in private capital. Otherwise, this is exactly the critical point where the scale that we need is most likely not possible to be realised if we don't manage to address these in a governance and management way, making some more fundamental structural changes.

Adaptation Investments are of course particularly challenging. Adaptation financing, the split incentives. so, the beneficiaries of the avoided risks are not the ones that have to invest. So, it's more difficult to find a closed and feasible business model. The question is more of how you are ultimately refinancing the cost of risk mitigation. Is it a sociable cost or is it widespread, is there particular actors that are more benefiting? The insurance companies are not necessarily the ones but might be a source of investment. But in principle it's always the backflow. So, it's sometimes a bit difficult to have this clear like business model and I think this makes it sometimes not so easy to argue. when you have a new development, it's a bit more flood prone zone and you have to do a flood protection measures long before you start the development. In order to sort of protect the area, then you can bring it back basically in the development cost when you sell off the plots, you have already basically integrated the cost. but if you're, if you're talking about already existing infrastructure, it's much more difficult to say. How are you basically refinancing the cost of investment here. So that's why sometimes it's going a bit slower particularly in the field of energy or energy efficiency and the way you have contracting models and all these kind of things that are working in, It's a bit more difficult to realise this in the adaptation, so that's why I think the risk awareness about the potential costs of non-action are an important part so this risk awareness and risk calculation is highly important to argue outside the costs and sometimes the redistribution of costs for refinancing the invest.

Motivation and Incentives

We can generically talk in a number of fields a lot about procurement and sustainable procurement innovation, the relationship in the procurement process and particularly also to push providers and industrial actors towards production basically in a system way, circular economy is another one. In relation to the renewable energy targets and goals, we definitely in many cities and countries have a lot of unused potential of small-scale renewable energy production. There is a difference, if we talk about total energy demand and large-scale installations that we need - important for the stability of the system and industrial large-scale demand. We could definitely ease the pressure on the systems if we would bring in much more potential for small scale, particularly solar. The discussion of heating and heat pumps in Germany is exemplary, but of course, on electricity there are campaigns in some cities for installing small scale solar installations on roofs and balcony. These kinds of things are part of the civil society engagement and that is not only about immediate economic benefits - because it is not a four- or five-year payback period - but it is also about appealing on their engagement as civil society actors, which is important. You have to motivate civil society. The same is on the side of energy saving. With the energy crisis in that sense caused by the Russian attack on Ukraine, there is obviously potential to save energy because we in some societies were quite successful in that. But of course, we always define them as temporary efforts and we need to aim at translating some of those behaviour changes as more continues efforts that are needed not only in response to the crisis, but also as a permanent response to the climate crisis. And I think the same has not happened really with some of the mobility restrictions that we were facing under the COVID crisis. You can see basically everything is coming back to the habits that were before. And it's not a more substantive lifestyle change, not saying we should apply all the restrictions and all the things that people are missing. If you could say, OK, we go up to 70% of what

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we had before. But we say 30% would already be a considerable impact on climate change. And that's things that we have to work with in terms of motivation and communication in a better way.

ICLEI Finance Expert 2

Actors and Partnerships

ICLEI WS works together with ICLEI regional and global offices. We have annual calls and applications are collected by ICLEI WS. Project mobilisation happens mainly through regional offices. Screening and then selection of projects for which we commit to seek financing opportunities, offer project preparation support and develop a roadmap for the projects on what they want to achieve, and how they can reach objectives.

Every applicant is involved in a dialogue process. Project owners receive tailored - feedback to improve project ideas. All applicants are part of a TAP community. LGs are kept in the loop, and they are provided with info, webinars.

Projects applying to the TAP pipeline are mostly coming from local governments from global-south regions. They are checked for alignment with Paris Agreement, SDGs and TCFD; In the application, projects are asked about the climate and transitional risks, and have to explain how they align with the SDGs and the Paris Agreement. Projects are crosschecked with other standards such as FAST Infra standard; GIB; SURE Standard; SURE and quick Scan Tool. Projects in TAP are donor driven. If a donor has specific criteria or require specific standards, then projects are cross-checked with respect to such standards, but these are not incorporated in the standard TAP application procedure.

Challenges

Engaging the private sector is challenging as private sector focuses on short term high profits, while LGs look for long-term investments in infrastructure projects, not always with high profits (e.g. resilience projects). It is challenging making projects attractive for business. It is also challenging having a proper revenue generation model that allows both the private sector and local governments to benefit from the project implemented. Making projects visible is also difficult. Project preparation for the project to be sellable is challenging.

Regulatory challenges: Stronger alignment local and national governments. LGs in Europe depend on national governments and accessing funds is a political process. It is needed a stronger multilevel collaboration and alignment of national and local goals.

Climate Finance Policies

The policies are easy to understand. The goals are easily achievable. Guidance is clear. However, a compliance and controlling system is needed. The SDGs are measured, they are useful for project development. However, financing partners/investors still don't value them.

EBRD/EIB (criteria green cities and gap fund is useful): while fund managers and private investors ask questions on sustainability, but they only thick the box, meaning sustainability is not a priority. They still take into account financial soundness (strong business models).

Opportunities

Tax/fee collection system is not appropriate at a local level in Global South, and it is not appealing to investors. However, this is not the case of the European countries, where cities are creditworthy and can be a guarantee for investors. If the taxation system is used in smart way, it can provide guarantees to investors. In Europe, there is a smart reallocation of budget and labelling of different taxes that is helpful. Not the same for global south.

In Europe, fiscal autonomy is better than in the Global South, especially regarding taxes. This allow local governments to be independent from national governments or international EU funding and has potential for land use decisions. Smart use of taxation is what is needed and use of land.

In TAP, we move away from climate, and we focus more on sustainability, we call the projects “sustainability urban infrastructure projects”. We are looking to connect TAP to Race to Zero and Race to Resilience, and the ICLEI Climate Neutrality policy, but it is not a criterion at the moment.

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Types of Investment

City investment plan should be strong concept, good knowledge of challenges, ideas, activities and expected outcomes. Lacking clarity on the ambition of the project and expected tangible results. We needed clear figures on finance, often lacking in early-stage projects.

We are working with DFIs, EIB, EBRB, World Bank. Some of our collaborations are GAP fund with EIB and World Bank; Green Cities with EBRB.

TAP Targets both mitigation and adaptation. CCFLA report on urban adaptation finance is only 9% of all urban finance and 10% of total Climate finance. Adaptation finance is usually quite underrepresented, but not in the TAP pipeline, where projects are quite balanced. More than 1/3 of projects are adaptation and resilience focused. In fact, the TAP pipeline tries to ask projects to think in an integrated way (encouraging adaptation projects to integrate mitigation components).

Just transition and people centred approach is very much taken into account; recommendation are based on ICLEI-centred pathways in the TAP application form.

Motivation and Incentives

Our goal is to support a resilient and net zero development, focusing on local needs. Our motto is being demand driven as local people know the best what the challenges and the weaknesses are they have to overcome.

GNE Finance Expert

Actors and Partnerships

We decided to get closer to municipalities as the market is still not there (missing market models, technologies, services). Cities should fill certain market gaps, to validate or to compensate for lack of regulation and lack of certain incentives. The energy transition still needs to be pushed and led by the cities to validate, to build the trust, and to regulate accordingly, to push the local or the national incentives.

We decided to be part of this from the beginning and take a strategic positioning to also have a say and early foot in this we hope potential big market.

During this process, we have been involved with NGOs moved by certain missions, talent and passion. Municipality has the budget, and do not have urgency, while NGOs need to make a living, and companies as well – urgency not there in municipalities (misalignment of interest/ timing).

Stakeholders involved – industries have certain agendas (for RE), they may seem slow, but they wait for renewable technologies to be mature and stable. They are waiting for local stakeholders (NGOs, citizens, LG) to push to make them economically viable (as in the case of energy communities).

Challenges

- Market access/ Regulatory challenges: Need of capacity building from a regulatory perspective. Permitting licence affects timing and availability of the project itself.
- Institutional challenges: Efficient management of public funding, e.g. SuperBonus in Italy: industry reacted well, but fraud occurred due inefficient management system of this public funding. Markets need stability. Stable rules and timely reaction is needed.
- Capacity building is one important issue. This is transversal. In public administration there is a big gap for civil servants to understand the energy transition, how it can implement, what can be done, which tools they need. The policymaking should involve the private players in terms of industry and finance to support scaling and speeding up the energy transition.
- The public administration is not used to work with private finance, despite loans. Innovative solutions are not understood. Cities need to understand that economic viability, return is needed for private financiers to participate in projects at local level.
- Toolkit is needed in local municipalities for them to tackle any projects initiative with a new mindset to play the economic game. To help them fill the market gaps. >> capacity is needed and collaboration with all stakeholders (industries)

Climate Finance Policies

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There is a big disconnect between directives, frameworks, initiatives and the realities of cities, because people having legal and civil responsibility to make decisions, will base them on the national and local regulations. These regulations affect them and govern their work. We think regulations are good and help to build a narrative, bring stakeholders together and create political support. But the technicians and civil servants are those who need to make certain decisions and they are influenced by the legal constraints that limit their decision making, and this is due to the fact that every single country and every single jurisdiction differs; suffering on how we connect resources to the projects.

Disconnection between EU regulation and EU member states. E.g. Crowdfunding regulation that could be useful for energy efficiency. The regulation, approved by the EC at end of 2021. In Italy this regulation was adopted with almost 2 years of delay, thus creating a gap between operators and the market. Though stakeholders such as public administrations, cities or private sector are involved in the preparation of such regulations and wish to do so, however, the delayed transposition at a national level, disrupted this process and influenced the market.

In areas as buildings' decarbonisation and energy efficiency it may be worse, as these regulations are not in the hands of national regulators, though they are the ones that will transpose them at a local level. But there are examples dispositions and norms to manage this. Ex: Spain – social housing for instance is regulated at a local level, regardless of regions.

The Energy Efficiency Directive is the first concern. Fitfor55 has been a push from a mediatic perspective. No practical impact so far. The EU Taxonomy would be 2 or 3rd place, and it has a direct impact on policies, portfolio decision making of institutional investors, tricking down to other operators. It is a late process, grey area on how it is implemented at a local level. The work on EU taxonomy is far from the financial market.

Important is the energy performance building directive – for its implication, requirements mandatory or not. At a local level, it is important how people perceive it. The intentions are good in term of objectives to accomplish, but we should take care on how it is generated the buy in

Lack of time and no action following them. Fit4 55 is high level effort. But this directive has lack of ambition in terms of clear incentives. Sometimes, incentives are forbidding things (e.g., should we impose or forbid a tenant or landlord to rent his house with an energy certificate below letter C? That would really give a very strong incentive, but there's a political backlash here).

At the city level the use of these initiatives is considered as a substantial support, but long way until really it gets to our financial markets.

Types of Investment

ELENA, when there are already sizable investment opportunities, and EIB .

DCFD is 1 type of framework that comes almost entirely from private sector. Definitions and issuance of green bonds, sustainability bonds, are key for financial markets to define which type of insurance can be used. There is a strong demand for such bonds as key to achieve the ESG goals. Lots of grey areas about how these bonds can be classified because there is lack of tracking on how the funds are deployed.

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