# FINANCING THE GREEN TRANSITION OF EUROPEAN CITIES: WHAT DOES THE EUROPEAN GREEN DEAL CHANGE?

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The European Green Deal (EGD) is an ambitious set of policy initiatives aimed at reducing greenhouse gas (GHG) emissions to net zero by 2050 and moving the continent to a clean and circular economy (EC, 2019). Europe is one of the world's most urbanised regions (UNDSA, 2019).[1] Considering this, how will the EGD finance the transition to a climate-neutral, competitive and inclusive European economy at the city level? Generally, urbanisation has been good for human development and economic growth. Cities concentrate business, innovation and technology, and they facilitate access to food, infrastructure and healthcare. However, cities are also responsible for around 70% of human-induced GHG emissions (United Nations, 2020).

Financing urban, low-carbon infrastructure is a major challenge for cities in all regions of the globe, as they are dependent on many types of public actors (city governments, national governments, multilateral public funds) and private financial institutions. Slow urban growth in Europe presents particular challenges for the green transition. European cities face less pressure for new infrastructure than cities in developing countries, but must adapt existing infrastructure to low-emission patterns. This will demand specific types of financing and business models to achieve the rapid turnover required.

In this chapter, we focus specifically on the role of European Union (EU) funds in promoting climate-smart urban infrastructure in the region and how the EGD might affect the current funding system in place. We also explore a number of challenges European cities already face while trying to access existing EU climate funds, including those that are regulatory, budgetary, political and capacity-related in nature.

## I. The European Green Deal

In December 2019, the European Commission first presented its ambitious plan to shift towards climate neutrality, the EGD. The initiative proposes GHG emission reductions of 50%–55% by 2030 and hitting net-zero emissions by 2050 by decoupling economic growth

1. While 74.5% of European citizens live in cities, the urban growth rate in Europe is falling gradually and is set to decline further in coming years. By 2050, Europe will be the third-most urban region in the world, with 83.7% of its citizens living in urban areas, just behind North America, with 89% living in cities - and Latin America and the Caribbean, with around 87.8% (UNDSA, 2019).

from resource use. It also proposes a European Climate Law to make the targets a legal obligation (EC, 2019). The EGD is expected to stimulate governments to set new targets domestically and will require huge efforts to mobilise finance for strategic decarbonisation programmes across Europe.

EU-level financing represents one of the key sources of climate finance for cities in Europe.

In January 2020, the European Commission published the Sustainable Europe Investment Plan (SEIP) for the EGD, which aims to mobilise public investment and help unlock private funds leading to at least €1 trillion of private and public sustainable investments over the coming decade (EC, 2020c; 2020e). It provides more detail on the expected levels of funding to be delivered and mobilised to implement the EGD, as well as an insight into the delivery mechanisms to be used to channel funds. Seed funding will come from the EU budget, member states, the European Investment Bank (EIB) and EU Emissions Trading Scheme revenues from carbon allowances.[2] The delivery channels announced so far are largely pre-existing institutions, funds and initiatives (EC, 2020c).

With EGD sources of seed financing and delivery mechanisms heavily based on existing EU funding channels, close scrutiny is required to understand the influence of the EGD in general and on cities in particular. This is further complicated by Next Generation EU (NGEU), the EU's COVID-19 recovery plan for Europe, which was ratified in May 2020 and amounts to €750 billion of additional support and reinforcement for the 2021–2027 EU budget. The NGEU plan mentions many EGD components, and some commentators claim that it will reduce some EGD investment commitments (Mackenzie, 2020), while others argue that certain commitments will be increased (EC, 2020d).

The key delivery channels for EGD-related funding will include:

1. European Structural and Investment Funds;
2 . The Invest EU Programme;
3 . A new Just Transition Mechanism;
4 . A new facility focused on the renovation of existing buildings.

While the EGD and its investment plan have broad and ambitious targets, they do not yet provide a detailed understanding of how those targets will be realised in terms of delivery mechanisms. The extent to which the delivery mechanisms and funding commitments already announced will be sufficient to achieve the decarbonisation targets set is not yet clear, particularly in relation to cities and urban climate-smart infrastructure. We need to understand in more detail how the delivery mechanisms will be implemented and whether they will be able to help overcome some of the current challenges of financing decarbonisation in cities. The mechanisms and their potential relevance for cities are discussed further in the next section.

## II. EU funds: city access and the impact of the European Green Deal

Today, EU-level financing represents one of the key sources of climate finance for cities in Europe (CECCE – ECR, 2017). Compared to other cities in the world, European urban areas have access to large amounts

**2.** Sources of finance to fund the EGD are estimated as follows: The EU budget will contribute €503 billion (from 2021 to 2030) of spending on the environment across all EU programmes while national government co-financing contributions, alongside EU structural funds, are expected to amount to €114 billion. Invest EU will mobilise €279 billion (from 2021 to 2030) of private and public climate-related investments by, inter alia, offering guarantees to reduce the risk in operations. EU Emissions Trading Scheme revenues from carbon allowances allocated will contribute an estimated €25 billion.

of national public funding and, in many cases, can also raise commercial funding backed by their own creditworthiness. For some European cities, EU funds are one of the main sources of public funding.

Before announcing the EGD, at least 20% of the EU budget for the 2014–2020 period was dedicated to climate action. Cities mainly access EU funding through their national governments, although designated cities and regions can play a role in the administration of funds, for example as intermediate bodies in the funds-flow process. Yet, the EU funding landscape is very complex and for many cities the first barrier is understanding what funds are available to them. To explore this barrier further, we present an overview of the existing funding opportunities for urban climate finance, how they might be affected by the EGD, and the challenges in accessing them.

### Current EU-level sources of funding

Within the 2014–2020 Multiannual Financial Framework, cities have access to several types of support through grants, technical assistance and financial instruments. These funding opportunities can be accessed directly by a city official or through a city's national governments. The vast majority of funding is currently channelled through national governments.

There are three main sources of funding for cities in the EU. First, the European Structural and Investment Funds (ESIF), which include five thematic sub-funds and are the largest source of EU funding. Second, the European Commission, which has several programmes to support European municipalities, although it has no direct responsibility at the local level. The third main source of climate-smart funding for cities is the European Investment Bank.

All of these funds will be affected by the EGD, as indicated by financial commitments mentioned in its investment plan. The finer implementation details, however, remain unclear.

### The European Structural and Investment Funds (ESIF)

More than half of all EU funding is channelled through the five European Structural and Investment Funds (ESIF) jointly managed by the European Commission and the EU countries.[3] The ESIF planned budget for 2014–2020 was around €639 billion, with about €460 billion coming from the EU and the remaining €179 billion coming from national governments.

Every seven years the Multiannual Financial Framework (MFF) determines the maximum annual amount the EU can spend in each of the five funds. Within this cycle, partnership contracts between the EU Commission and the member states are created and then made operational through programmes that often have a sectoral basis, with different axes reflecting EU and national priorities. Regional and local governments can, in theory, be assigned responsibilities as managing authorities or implementing bodies but, generally, national authorities take on this role.

3. The ESFI comprises five funds: the European social fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

Three of the ESIF are of particular relevance for urban areas:

- **The European Regional Development Fund (ERDF)** aims to correct economic and social imbalances within regions and includes low-carbon economy projects as one of its main priorities;
- **The European Social Fund (ESF)** supports employment-related projects throughout Europe;
- **The Cohesion Fund** targets transport and environment projects in countries where the gross national income (GNI) per inhabitant is less than 90% of the EU average.

| ESIF | Total funding available (2014–2020)[4] | EU Commission proposal to the 2021–2027 MFF[5] | Urban climate finance interest |
|---|---|---|---|
| European Regional Development Fund (ERDF) | €276 billion, from which:<br>- EU funds = €199 billion<br>- National funds = €77 billion | €200 billion (only EU funds) | The fund Regulation has a chapter (Chapter II) dedicated to sustainable urban development, which requires the national cooperation agreements to have a specific axis in this field. For 2021–2027, an increased urban earmarking from 5% to 6% was announced at a time when budget cuts are being made to Cohesion Policy.[6] |
| European Social Fund (ESF) | €120 billion, from which:<br>- EU funds = €84.3 billion<br>- National funds = €36.2 billion | €89.6 billion (only EU funds) | Cities, the private sector and other organisations can apply to the fund to conduct professional training in green technologies. |
| Cohesion Fund | €73 billion, from which:<br>- EU funds = €62.1 billion<br>- National funds = €11.3 billion | €41.3 billion (only EU funds) | The fund Regulation has an article (Article 4) listing investment priorities, such as low-carbon strategies for all types of territories, particularly urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures. |

**Urban Innovative Action**, for example, is funded by the ERDF and provides direct resources to cities (of 50,000 or more inhabitants) to test innovative solutions to urban challenges. While only a modest part of the overall ERDF (€372m of ERDF funding in the 2014–2020 period), the funding is normally available via calls organised by the European Commission to which cities respond directly, covering different innovative areas of urban financing. Although it is not a dedicated climate finance fund, it has promoted nature-based solutions, energy efficiency and climate adaptation among other initiatives.

An interesting example is the city of Breda (in the Netherlands), which received a €4 million grant to test innovative nature-based solutions such as a construction material that allows trees to grow over quay walls.[7] **URBACT III,** which is co-funded by ERDF, is an instrument of Cohesion Policy that seeks to promote regional city networking, peer-learning and the exchange of good practices to tackle shared challenges and improve urban policies. The programme provides grants for capacity building in European cities. Finally, the Joint Assistance to Support Projects in European Regions (**JASPERS**), funded from ESIF funds and implemented by the EIB, is a programme which includes significant support for local

4. Data from https://cohesiondata.ec.europa.eu/funds [Accessed on September 20th 2020].
5. The new 2021–2027 MFF was first proposed by the EU Commission in 2018 and revised in May 2020 due to the COVID-19 crisis. In July 2020 the European Council approved the proposal, but in order to be adopted the proposal must be ratified by the European Parliament and member states, which is expected to happen in December 2020. The financial figures provided in the table are from: EP, 2019.
6. De Béthune, T., 2018.
7. More information on the Green Quays Programme in Breda available at: https://uia-initiative.eu/en/news/enabling-nature-take-over-green-quay-walls-breda [Accessed on September 25th 2020].

and regional authorities as well as municipal utilities to assist with project development, from the early stages of conception through to the final application for EU funding. JASPERS is particularly relevant as it intends to accelerate the absorption of ESIF funds at city level.

Although it is not clear how the EGD will distribute climate funding, its investment plan mentions that, "the Cohesion Fund and the European Regional Development Fund are expected to invest at least EUR 108 billion in climate and environment-related projects over the next 7 years (2021-2027), more than 30% of the total envelope" (EC, 2020c). Yet, under the current MMF 2014–2020, the EU Cohesion Fund and the ERDF have spent approximately €106 billion on environment-related projects.[8] The EGD budget could provide significant assistance to cities to address challenges deepened by the COVID-19 crisis, but more information is required to understand if the EGD will increase the budget available for cities compared to the previous MMF budget.

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Finally, few details are currently available on the new Just Transition Mechanism (JTM), but it is understood that it will support the regions most heavily dependent on fossil fuels, such as Poland and the Czech Republic. The mechanism aims to mobilise €100 billion over the 2021–2027 period with contributions from the EU budget, and with co-financing by member states and Invest EU. It is proposed to include a fund to support the creation of new economic opportunities, a Strategic Investment Facility that will be integrated into Invest EU and a public loan facility. The NGEU plan proposes an increase in the Just Transition Fund of up to €40 billion. The Strategic Investment Facility will provide €15 billion for investments in green and digital transitions, with the aim of mobilising up to €150 billion of investment. It remains to be seen what activities will be funded by the JTM and how relevant they are to cities specifically.

### European Commission programmes

Cities are able to access EU funding directly through European Commission programmes. For example, the well-known **LIFE Programme** provides grants and co-financing for public bodies (including cities), the private sector and NGOs to promote environmental activities and climate action. Since its launch in 1992, LIFE has funded a total of 530 projects by local authorities (out of a total of 5082 projects).[9] One example is LIFE's €1 million UrbanStorm project in the municipality of Viimsi in Estonia that aims to increase the climate resilience of Estonian municipalities and their ability to manage flooding caused by heavy rainfall.[10] LIFE's specific role in the EGD means the programme's funding envelope will be increased to €5.4 billion for 2021–2017, a 72% rise on 2014–2020.

Another important European Commission programme is **Horizon 2020**, an €80 billion programme dedicated to research and innovation. Although the programme is directed at research organisations, many project calls focus on urban issues related to sustainability and climate change. For example, a €3 million project called CityChangerCargoBike by an Austrian mobility research organisation was approved in 2018 to promote the large-scale use of cargo bikes in European cities.[11] The

8. To estimate this number, we have summed up the total contribution of the Cohesion Fund and the ERDF in three environment-related areas (Environmental Protection and Resources Efficiency; Low-Carbon Economy and Climate Change Adaptation; and Risk Prevention). Data available at: https://cohesiondata.ec.europa.eu/funds/ [Accessed on October 6th 2020].
9. LIFE database: https://life.easme-web.eu/ [Accessed on 20 September 2020].
10. More information about this project available at: https://www.viimsivald.ee/development-sustainable-and-climate-resilient-urban-storm-water-management-systems-nordic [Accessed on 20 September 2020].
11. More information about this project available at: https://cordis.europa.eu/project/id/769086 [Accessed on 20 September 2020].

Horizon 2020 programme also funds other initiatives aimed at cities, such as JPI Urban Europe, a research hub that supports interdisciplinary urban innovation projects, and the technical assistance facility from the European Energy Efficiency Fund, a public–private partnership blended fund that provides grants, loans and technical assistance to cities in the area of energy efficiency.

The EGD announced that half of all EIB funding will be invested in climate projects by 2050. Considering the high level of city-level projects financed by the bank, this decision could have a significant impact on policy in European cities.

In September 2020, the European Commission launched the European Green Deal Call, funded by Horizon 2020, to promote projects responding to the COVID-19 crisis through tackling climate change. For cities, this has resulted already in a specific call for proposals on "Climate-Neutral and Socially Innovative Cities", which aims to develop a one-stop shop for cities providing expertise on technical, financial and socio-economic topics to develop and measure climate action plans. However, from 2021 to 2027 the Horizon Europe research and innovation programme will also contribute even further to the EGD. Indeed, 35% of the programme's budget (currently proposed to be €100 billion) will be set aside for climate-friendly technologies.

Separately, the European Commission has recently published a new strategy focused on renovating existing buildings, "A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives" (EC, 2020f), with the objective of doubling annual energy renovation rates in the next ten years, which currently stand at around 1%. This may have a direct impact on European cities (CUT, 2019) since 58% of potential emission reductions in cities come from commercial and residential buildings. The investment plan also states that efforts will be put into working towards achieving net-zero emissions in European car fleets sometime in the 2030s, but the delivery mechanisms for this are not yet clear.

### European Investment Bank (EIB) funding

The EIB is a supporter of city-level climate action and in line with the EGD it will become the EU's climate bank. From 2015 to 2019 the EIB lent €113.5 billion to urban projects. Urban project lending typically accounts for between a quarter and a third of total EIB lending, about 36% of which are climate mitigation or adaptation projects at city level.[12]

The EGD announced that half of all EIB funding will be invested in climate projects by 2050. Considering the high level of city-level projects financed by the bank, this decision could have a significant impact on policy in European cities. Yet the EIB, which only finances projects over €30 million, tends to work mainly with larger cities. Smaller cities often need to aggregate projects to be able to access EIB funding (e.g. via aggregators like the Fund FLAG in Bulgaria).[13] That said, the EIB tries to support smart city projects in smaller cities by working with local financial intermediaries, such as municipal and local banks that are especially active in the EU (e.g. Belfius in Belgium, BGN in the Netherlands and BGK in Poland).

The EIB will also implement 75% of the Invest EU Programme, which forms part of the next MMF 2021–2017 budget. Invest EU combines 14 EU financial instruments under one umbrella, aiming to improve the access to and mobilisation of public and private finance investment within the EU through guarantees. The programme, which was first agreed to in 2019, was finan-

12. Interview with EIB.
13. More information available at: https://www.eib.org/en/press/all/2020-251-eib-and-fund-flag-agree-eur25-million-loan-for-cities-across-bulgaria [Accessed on October 16th 2020].

cially enhanced by the NGEU programme to be able to face the COVID-19 economic crisis. The Invest EU Programme contains various funds and facilities that are relevant to cities, with EU guarantees underpinning support in key policy areas, including sustainable infrastructure, a technical advisory hub to support project preparation, an investor-project matchmaker facility, and a number of thematic financing facilities that provide loans and guarantees for energy efficiency, SMEs, innovation, sustainable infrastructure, etc. (EC, 2020a).[14] For example, ELENA, the European Local Energy Assistance programme, provides technical assistance and project preparation support to public and private entities to develop energy efficiency and renewable energy investments for buildings and urban transport (EIB, 2019).

Political divergences between different levels of government are one of the main obstacles cities face when seeking access to EU climate-related funds.

## III. Current constraints in mobilising EU funding for urban low-carbon, climate-resilient investments

Obstacles preventing the flow of EU public funds into urban climate and infrastructure projects are largely related to four factors:

1) *Political constraints:* Most EU-level funds are directed to national governments. While the European Commission and the EIB provide direct access to cities for climate investments, a large chunk of EU funding is concentrated in the ESIF. Political divergences between different levels of government are one of the main obstacles cities face when seeking access to EU climate-related funds. In February 2020, the mayors of major European cities signed a joint letter asking the EU for direct access to funds in the 2021–2027 MMF, which would enable them to respond faster and more effectively to the climate emergency (Reuters, 2020). Currently, 34 major cities have signed the letter.[15] The capital cities of the Visegrád countries – Bratislava, Budapest, Prague and Warsaw – which stand in opposition to their respective national-populist central governments, have even gone as far as creating a "Pact of Free Cities", which calls for European cities to be given direct access to the EU Cohesion Fund.

   In addition, local authorities themselves often suffer from competing priorities and limited resources that may lead to the prioritisation of economic development activities over climate-smart infrastructure. As a result of the COVID-19 pandemic, cities are also facing major budget restrictions that might lead to further shifts in priorities. In a joint letter to the European Commission, the Europe Board of the Covenant of Mayors called for the EU's economic relief packages to pursue a green recovery strategy at the municipal and regional levels:

To best support cities and regions in their recovery efforts while accelerating the energy and climate transition, these investments should be channelled towards the transformation to a climate neutral society (Covenant of Mayors, 2020).

   The letter cited examples of how cities like Milan had announced ambitious measures for moving towards a circular economy and reducing the use of cars after the end of lockdown. Furthermore, multi-level governance is strongly promoted via the Urban Agenda for the EU and the thematic partnerships between central and local government and other stakeholders, while the political messaging on the EGD, strongly in favour

**14.** The European Fund for Strategic Investments, the Natural Capital Financing Facility, the Private Finance for Energy Efficiency Instrument (PF4EE) and the EIB Municipal Framework Loans.

**15.** A list of the cities that have signed the letter can be found here: https://budapest.hu/sites/english/Lapok/2020/eu-lobby.aspx of a green recovery, has stimulated a positive response from cities, for example in the Mannheim Message (2020), which emphasises the need for cities to make "local green deals".

2) *Regulatory and budgetary constraints:* Another important constraint is that most EU funding requires 45% or more co-financing from cities. For municipal authorities, which generally have tight budgets and often limited borrowing capacity (many cities cannot borrow money in private financial markets), this requirement is hard to meet. The COVID-19 crisis has further exacerbated this problem, with estimates suggesting that local government revenue will be 15–25% lower in 2021 due to the pandemic (Wahba, 2020). However, long-term funding from the EIB can finance the city's counterpart funding to match EU funding up to a cumulative 90% of investment costs across EU and EIB funding.

3) *Capacity-building constraints:* Many cities in the EU have insufficient administrative and technical knowledge to prepare funding applications and ensure the bankability of potential investments. The insufficient capacity of EU cities, particularly small and medium-sized ones, to respond to complex EU or related national project calls, is a major constraint. Often the deadlines are very tight and some funds require specific technical information (e.g. risk assessments, environmental reports and detailed financial analysis) which many cities cannot deliver. Language barriers pose a further obstacle. Many of the calls directed at cities are in English only (e.g. Horizon 2020), presenting an extra barrier for non-English speakers.

   In addition, cities often lack the financial expertise required to design project funding structures, including non-grant funding. Financial instruments that normally involve revolving funds are often quite complex and not all cities have the required technical capacity for structuring the instrument and combining a range of funding. For example, Integrated Territorial Investment (ITI), a tool introduced in 2014 for use during the European Structural and Investment Funds (ESIF) programming period to bundle funding from different sources, has not, in practice, been able to aggregate many financial instruments. Although in some countries (like Poland) it has successfully stimulated urban investment on a functional urban area basis rather than purely within existing city administrative boundaries.[16]

4) *Knowledge gaps:* Identifying suitable sources of funding among the wide range of EU climate-related funds is a major challenge for cities. Many of the funds and project preparation facilities are thematic, such as the EIB's Natural Capital Financing Facility, and are not specifically directed at cities. It is often hard for cities to understand and navigate the EU funds.

   EIB initiatives such as JASPERs, ELENA and URBIS, the EU Covenant of Mayors, the Urban Agenda for the EU portal and URBACT all assist cities in navigating EU funds as part of their mandate. Yet, there is still no centralised source of information available. On the contrary, the proliferation of sources of advice, instead of providing guidance, risks increasing cities' confusion about where to go, who to ask and what the different facilities have to offer. Climate adaptation funds come with additional difficulties, as fewer investment options exist.

**16.** EIB interview.

Another constraint is poor communication on EU rules and timelines for funding programmes. For example, the requirements for the next EU MMF 2021–2027 funding programme that will begin in early 2021 have not been fully formulated at the time of writing (October 2020). This includes the concept of the circular economy at city level, which has yet to be defined by the European Commission. This lack of information means that cities have even less time to prepare their applications, and as a result less chance of accessing financing, especially given the long lead time needed to prepare urban infrastructure investments.

European cities already face major challenges in trying to access climate-smart infrastructure funding. Addressing these challenges is essential to getting cities on the right track.

## Conclusion

The EGD represents a major shift in gear for European environmental policy. Action at the city level will be key to achieving the programme's ambitious targets. Based on past experience, the majority of financing available for EGD implementation will likely be channelled through existing EU funds and institutions. A requirement is likely to be imposed for at least 6% of the ERDF funding to be allocated to urban investment (compared to 5% in the last programming period) and many initiatives will be targeted at climate- and environment-related measures. This represents a substantial volume of funding. Thus, early signs indicate that overall funding for cities may increase beyond past levels. It is welcome news that the EIB is increasing its climate-related projects under the EGD, which may potentially increase direct access to funding for cities.

However, more information is needed to understand whether the delivery mechanisms and funding commitments already announced will be sufficient to achieve the EU's ambitious decarbonisation targets and whether the EGD will also be a gamechanger for addressing cities' needs, including on urban climate-smart infrastructure.

European cities already face major challenges in trying to access climate-smart infrastructure funding. Addressing these challenges is essential to getting cities on the right track. One key improvement, responding to the political constraints, would be to simplify and expand the access modalities for EU funds – an elusive goal during the preparation period of every new programming period – and make more direct access funding channels available to cities. In parallel, expanding the key urban-related programmes in funds such as Horizon 2020 and LIFE, while also mainstreaming urban action across programmes, will be important to increasing city-level climate action.

The development of the EU Sustainable Finance Taxonomy should additionally encourage commercial investment into green and climate-smart urban investment. Project preparation facilities should also be strengthened to respond to capacity-building constraints in cities. Improving city officials' access to these facilities could also be a potential source of knowledge about EU financing opportunities, helping to solve the knowledge gaps in many EU municipalities.

The next implementation steps and the design of the delivery mechanisms will be decisive and set the tone for how European cities advance on their much-needed green recovery.

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