

NET ZERO CITIES SGA2-NZC

Report on connectivity between public funding options, potential obstacles, and mitigation strategies for Investment Plans

Deliverable 2.18

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Abbreviations and acronyms

Acronym	Description
BEBs	Battery electric buses
CINEA	European Climate, Infrastructure and Environment Executive Agency
CCC/CCCs	Climate City Contract(s)
CIP/CIPs	Climate Investment Plans(s)
DG CLIMA	Directorate-General for Climate Action
€	Euros
EIB	European Investment Bank
EEA	European Environment Agency
ETS	Emissions Trading System
ETS1	First Emissions Trading System
ETS2	Second Emissions Trading System
EU	European Union
GHG	Greenhouse gas
IF	Innovation Fund
IFEG	Innovation Fund Expert Group
KtCO ₂ e	Kilotonnes of CO ₂ equivalent
MF	Modernisation Fund
MtCO ₂ e	Metric tonnes of CO ₂ equivalent
NECP(s)	National Energy and Climate Plan(s)
NZC	NetZeroCities
PDA	Project Development Assistance
RRF	Recovery And Resilience Facility
SMEs	Small and medium-sized enterprises
WP	Work package

Summary

This report provides cities with a tool to understand how EU financing instruments, particularly the Innovation Fund and the Modernisation Fund, can support local governments in their climate and energy transition. It briefly describes the scope, priorities, and eligibility criteria of the Funds, reflecting on how cities can access and mobilise these funding opportunities. It also reflects on how the funds can be used and provides examples of funded projects relevant to urban transformation.

Keywords

Innovation Fund, Modernisation Fund, Climate City Contract, Climate Transition, Energy Transition.

Introduction

Cities are central in Europe's successful transition to climate neutrality. At the same time, they face challenges in accessing finance to implement their Climate City Contracts (CCCs) and Climate Investment Plans (CIPs). To address this major issue, several funding mechanisms have been established or strengthened over the past few years, including the Innovation Fund (IF)¹ and the Modernisation Fund (MF)², which are both financed through revenues from the EU Emissions Trading System (ETS)³. These funds have emerged as two of the most significant financing instruments available at the European level.

This report provides detailed and practical insights into how cities can access and use these funds to support their climate initiatives. The report is designed to complement and build on the analysis presented in SGA2-NZC Deliverable 2.17, the 'Interim Better Funding White Paper' – a living document providing analysis and recommendations on “how to improve public funding streams at the EU, national, and local levels”.⁴

These funding instruments represent substantial EU resources directly linked to the decarbonisation of energy systems, industrial processes, and critical infrastructure, and they offer significant opportunities for cities striving to reach their climate neutrality goals. However, in contrast to several other similar sources of funding, such as the Regional Development Fund, the Just Transition Fund or the Horizon Europe programme that are widely recognised and regularly accessed by municipalities, these two funds remain relatively unknown, poorly understood, and underutilised despite their scale, relevance, and direct connection to climate-neutral investment. Although both funds are central pillars of the EU ETS framework, they have not yet been analysed through the lens of municipal needs, CCCs, or CIPs. By focusing on these funds, this report fills a strategic knowledge gap and complements the broader funding ecosystem analysis undertaken in previous deliverables. Its objective is to provide cities with practical and targeted insights into how these funds operate, how they can be accessed, and how their priorities align with local climate neutrality processes. This focused approach provides cities with structured guidance that has not been previously available to them.

The IF and the MF were introduced with the revision of the ETS Directive⁵ in 2018⁶ as a way to mitigate the effect of the carbon pricing on regions and sectors where this would have the greatest impact. Both funds are fed by ETS revenues, making it difficult to predict the total amount available, as this depends on the auctioning of greenhouse gas (GHG) emission allowances. When presenting these instruments in 2021, the European Commission forecasted a potential budget of €40 billion for the IF⁷ and €46 billion for the MF⁸ for the period 2021-2030.⁹ In 2024, the ETS generated €38.8 billion in auction revenues,

¹ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund_en

² <https://www.modernisationfund.eu/>

³ https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets_en

⁴ Deliverable D2.17 'Interim Better Funding White Paper', p. 6.

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0410>

⁶ See Annex 1

⁷ https://climate.ec.europa.eu/document/download/73072698-b8f4-4f47-86f8-aa228aa23670_en?filename=innovation_fund_factsheet_en.pdf

⁸ [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754623/EPRS_BRI\(2023\)754623_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/754623/EPRS_BRI(2023)754623_EN.pdf)

⁹ The European Court of Auditor has a different forecast amount for example (Innovation Fund and the Modernisation Fund (the estimated amount can reach €38 billion and 51 billion for a 10-year period for each of the two funds, respectively) https://www.eca.europa.eu/Lists/ECADocuments/SR23_05/SR_EU-financial-landscape_EN.pdf

around €25 billion of which was distributed directly to EU Member States. Nearly €3 billion was directed into the IF and more than €6 billion into the MF.¹⁰

By contrast, the Cohesion Fund, covering only 15 Member States, has €392 billion for the period 2021 – 2027¹¹, but it covers all policy areas, not just those linked to the Green Deal.¹²

The MF is intended to support the ‘modernisation’ of energy systems in 13 Member States¹³ and is already being accessed by a number of cities that are part of the EU ‘100 Climate-Neutral and Smart Cities by 2030’ Mission (Cities Mission). The IF focuses on helping industries that are mostly dependent on fossil fuels, and therefore most impacted by the ETS, to reinvent their industrial processes. As a result, the IF does not primarily focus on territorial strategies or urban transition and is less accessible for financing investments listed in CCCs.

1. What is the ETS and how does it finance the IF and MF?

The EU ETS is a cap-and-trade mechanism: the EU sets a declining cap on total emissions and companies must hold one allowance per tonne of CO₂ emitted. Allowances are bought at auction or allocated partly for free, with the free share decreasing over time. Trading between participants determines the market price. The original system (ETS1) covers power, energy-intensive industries, and intra-European Economic Area aviation, with maritime shipping now being phased in. A separate system (ETS2) for buildings and road transport (plus small industry) will run upstream (fuel suppliers are the compliance entities) and is scheduled to start in 2027, although the European Council has called for a potential delay to 2028.

Since 2017, carbon prices have increased significantly. As a result, the revenues that Member States collect from ETS auctions have also risen, from €5 billion in 2017 to €33 billion in 2023¹⁴. Figure 1 below illustrates this evolution, including how auctioning revenues are used. According to the European Environment Agency (EEA), this trend is expected to continue.

¹⁰ https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets/auctioning-allowances_en

¹¹ <https://cohesiondata.ec.europa.eu/stories/s/2021-2027-EU-allocations-available-for-programming/2w8s-ci3y>

¹² https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

¹³ The beneficiary Member States of the Modernisation Fund are Bulgaria, Czechia, Estonia, Greece, Croatia, Latvia, Lithuania, Hungary, Poland, Portugal, Romania, Slovenia and Slovakia: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/modernisation-fund_en.

¹⁴ <https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated>

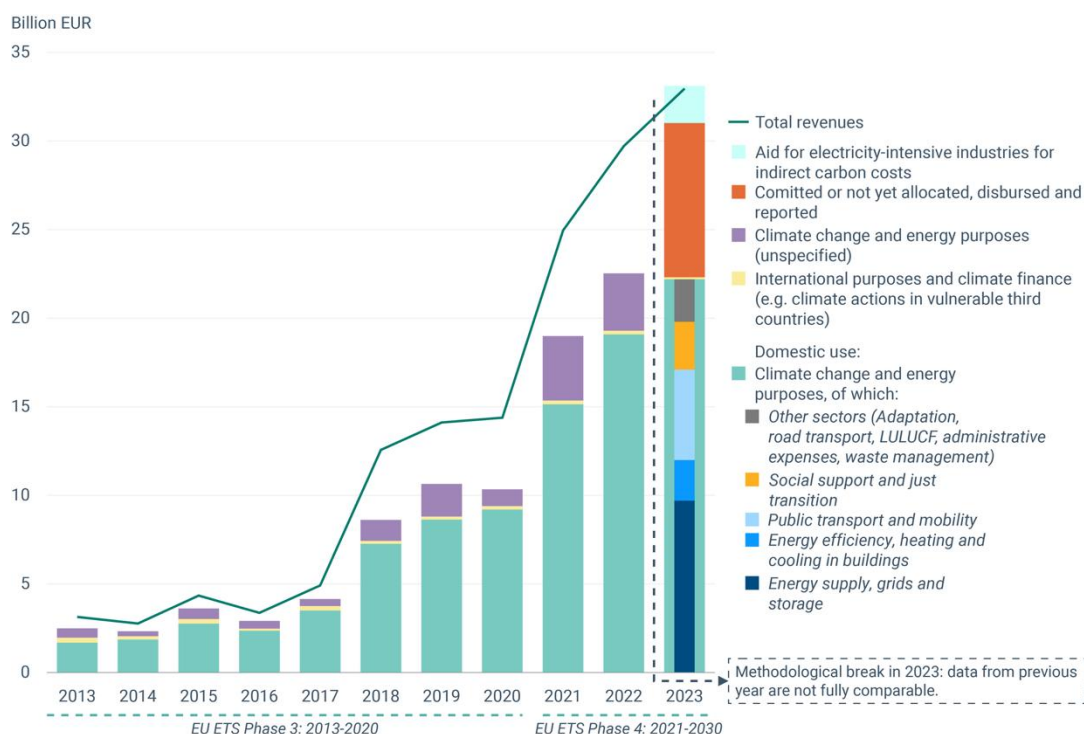


Figure 1: Use of EU ETS auction revenues 2013-2023¹⁵

ETS1 revenues are redistributed through two channels: i) national ETS revenues to Member States, and ii) EU-level funds, supporting low-carbon innovation and the EU energy transition through the MF and the IF.¹⁶ Member States' ETS1 revenues are supposed to be used exclusively to finance climate-related actions. However, due to a lack of clarity over what is a 'climate investment', these funds are often absorbed into national budgets with limited reporting and transparency.¹⁷

The EEA notes that, over the past 10 years, Member States have used most of their auction revenues for domestic measures. As shown in Figure 2 below, these revenues are allocated across different categories of domestic action. In 2023, 67% of domestically used revenue supported energy supply, grids and storage (such as renewables and self-consumption), as well as public transport and active mobility.¹⁸

¹⁵ <https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated>

¹⁶ https://climate.ec.europa.eu/eu-action/carbon-markets/eu-emissions-trading-system-eu-ets/about-eu-ets_en#what-is-the-eu-ets

¹⁷ https://carbonmarketwatch.org/wp-content/uploads/2024/02/CMW_EU_ETS_101_guide_2024_v04-1.pdf

¹⁸ <https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated>

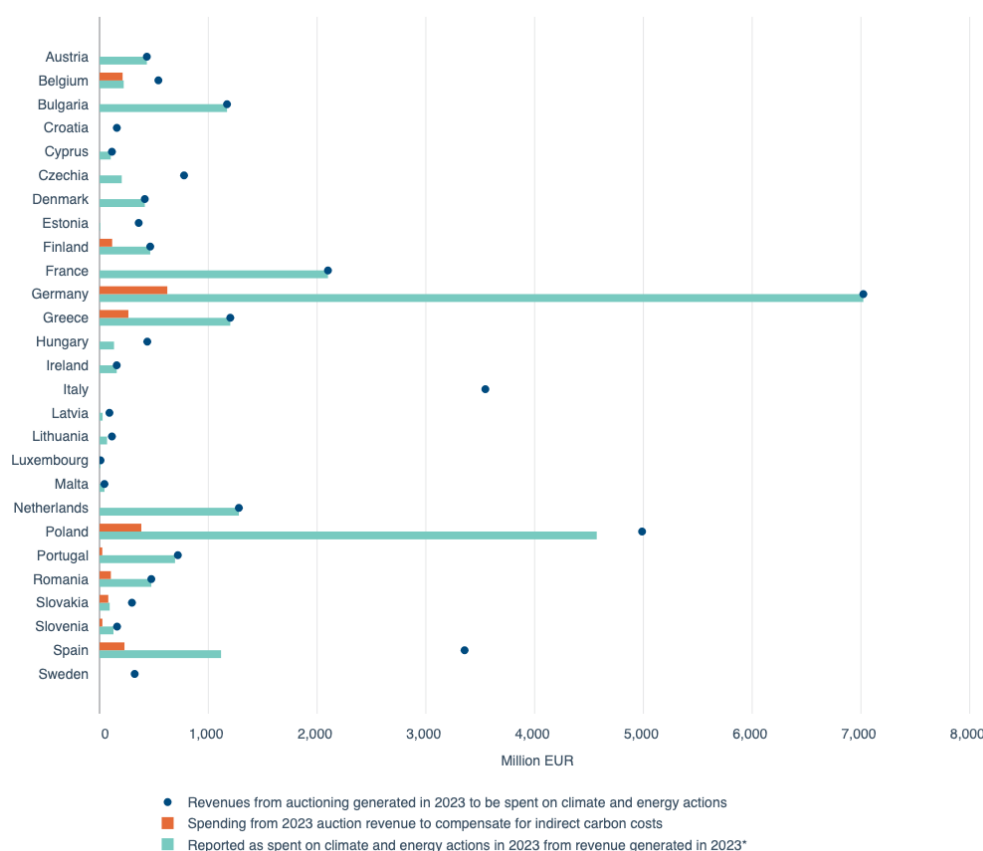


Figure 2: Use of ETS auction revenues in EU Member States (2023)¹⁹

2. Analysis of the Innovation Fund (IF)

2.1 Scope and governance

The IF is one of the world's largest funding programmes for the demonstration and deployment of low-carbon technologies.²⁰ It provides funding via grants for projects that can significantly reduce GHG emissions in sectors covered by the ETS and in sectors that are difficult to decarbonise. The scope of initiatives covered by the fund includes:

- Innovative low-carbon technologies and processes in energy-intensive industries.
- Carbon capture, use and storage.
- Renewable energy generation and integration technologies.
- Energy storage and flexibility solutions.

¹⁹ <https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated>

²⁰ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en

- Cross-cutting or systemic projects that demonstrate new value chains supporting industrial decarbonisation.

The IF currently supports 276 projects (192 grants ongoing and 84 more under grant agreement preparation), representing more than €15.8 billion in investment, with €11.1 billion already allocated, spanning 23 sectors across 28 countries. These projects are expected to avoid approximately 1,160 metric tonnes of CO₂ equivalent (MtCO₂e), with 26 kilotonnes of CO₂ equivalent (ktCO₂e) already avoided.²¹

The IF is delivered through grants by applying to periodic calls, and allocates resources via 'large-scale' and 'small-scale' windows, as well as thematic windows (e.g., clean tech manufacturing, mid-size pilot schemes). The funding rate of the IF depends on the type of grant: it provides support covering up to 60% of relevant costs for regular grants and up to 100% for competitive bidding, based on the cost-calculation methodology specified in each call for proposals (typically including capital and operational costs minus revenues over the first 10 years of operation).

Grant payments are made flexibly according to the project's financing needs and the milestones reached during its implementation. For regular grants, up to 40% of the total grant may be disbursed in advance, based on predefined milestones, before the project becomes fully operational. In addition, since the latest funds regulation revision in 2023²², the IF is also disbursed via a competitive bidding procedure (i.e., auctions).²³

The IF is managed by the European Commission (Commission), which has delegated specific tasks to the European Climate, Infrastructure and Environment Executive Agency (CINEA) and the European Investment Bank (EIB) within the fund. CINEA is the implementing body for the IF, managing the whole cycle from launching calls to overseeing proposal submission, evaluation, and grant agreement signatures. It disburses funding, provides technical support, and supervises project implementation, including technical and financial monitoring, controls, and recoveries. It also ensures programme visibility through communication activities and events.

The EIB oversees the monetisation of ETS allowances for the IF, and the administration of the revenues generated. It is also responsible for providing project development assistance (PDA) to potential projects. The PDA²⁴ helps project promoters strengthen their investment readiness for future IF calls. It provides targeted support to address gaps in technical and financial maturity through three types of services:

1. **Due diligence assessments:** Evaluating project maturity, technical robustness and initial financial viability.
2. **Financial services:** Preparing business plans, market analyses, financial models, forecasts, and assessing financing structures and bankability.
3. **Technical services:** Developing technical studies required for an IF application, including economic analyses, concept development, engineering support, procurement guidance, and implementation planning.

²¹ https://climate.ec.europa.eu/document/download/fd9a1320-179e-435a-b0c4-47330d9dd909_en?filename=20251113_presentations_en.pdf

²² https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en?utm_source=chatgpt.com

²³ This report does not cover this new mechanism.

²⁴ More information on how to apply for PDA: <https://www.eib.org/en/products/mandates-partnerships/innovation-fund/index.htm>

Additionally, an Innovation Fund Expert Group (IFEG)²⁵ assists the Commission in further developing the fund.²⁶ The IFEG, which began its activities in June 2018, advises the Commission on operational aspects of the IF, including eligibility rules, application and selection processes, and governance. It also provides guidance on how to maximise the IF's impact by leveraging additional public and private investment and promoting knowledge sharing.

2.2 Priorities

The Commission sets annual priorities for the IF through the call texts. It mainly supports decarbonisation in sectors covered by the ETS and contributes to the EU's GHG emissions reduction objectives in line with the EU Green Deal. Its thematic focus is aligned with the EU's urgent policy priorities, strengthening the economic transition by "creating new 'clean industry' business cases"²⁷. Among the most urgent priorities that are supported by the Innovation Fund, it is worth mentioning²⁸:

- **Innovation:** closing the innovation gap, decarbonising the economy, and reducing external dependencies.
- **Climate neutrality:** Reducing GHG emissions in the sectors covered by the EU Emissions Trading System (ETS), boosting the decarbonisation of the energy systems and the industry.
- **Decarbonisation of energy-intensive industries.**
- **Decarbonisation of transport.**

Across recent calls, the following award criteria have been highlighted:

- **Deep decarbonisation potential:** Projects must demonstrate substantial and credible GHG emissions avoidance.
- **Level of innovation:** Technologies or approaches should go beyond the state-of-the-art in the relevant sector.
- **Project maturity:** Applicants must demonstrate technical, operational, and financial readiness.
- **Scalability and replicability:** Projects should have potential to be scaled up or replicated across the EU economy.

These priorities are strongly oriented toward industrial transformation, meaning that applicants usually include private industrial actors, utilities, or technology developers.²⁹

²⁵ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/innovation-fund-expert-group_en

²⁶ More information: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en

²⁷ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en#what-is-being-funded-and-how

²⁸ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en#financing-rates

²⁹ More information: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en#governance

2.3 Eligibility criteria and geographical coverage

The eligibility criteria of the IF depend on the specific call. However, there are some overarching requirements that usually apply:

- **Type of applicant:** Legal entities from EU Member States, Iceland, and Norway. Public authorities can apply but need to partner with industrial actors to propose eligible technologies or processes.
- **Project readiness:** Demonstrated through feasibility studies, permitting status, technological validation, and credible financial planning.
- **Innovation level:** Must exceed incremental improvements.
- **GHG emissions avoidance:** Quantification and methodology aligned with IF requirements.
- **Geographical location:** Projects must take place in eligible countries.

2.4 Relevance for Mission Cities and CCCs: barriers and mitigation

As previously mentioned, the IF is not primarily designed for urban or territorial strategies as it finances highly innovative technologies and flagship projects within Europe that can bring about significant GHG emissions reductions. Nevertheless, it aims to support a wide range of projects, finding a balance between the level of technological innovation, the eligible countries, and the sectors targeted. As a result, it can still be relevant for cities under specific conditions: Cities may apply for the IF when:

- Projects involve large-scale renewable energy integration, innovative district heating solutions using waste heat, or energy storage systems that are developed in partnership with utilities or industrial actors.
- CCCs include innovation solutions, such as climate-neutral districts testing new technologies.
- Cities are engaged in public-private consortia where industrial partners lead the technological component and the city provides regulatory, spatial, and/or infrastructural support.
- Infrastructure projects (e.g., smart grids, large-scale electrification of industrial clusters) that align with IF technical windows.

However, a number of structural barriers can make the IF difficult to access for cities and their CCC initiatives:³⁰

- **Procedures are time-consuming and difficult.** This is particularly true for innovative or first-of-a-kind technologies due to the lack of specific rules and/or harmonised practices.

³⁰ European Commission: European Climate, Infrastructure and Environment Executive Agency, *2025 annual knowledge sharing report of the Innovation Fund – De-risking innovative low-carbon technologies*, Publications Office of the European Union, 2025, <https://data.europa.eu/doi/10.2926/9356836>

- **Permitting is an issue for many projects.** About half of the funded projects report a concrete risk of being delayed because of difficulties obtaining the required permits or challenging permitting procedures.
- **High technical and financial maturity requirements.** Many municipal projects are not yet at an advanced demonstration stage.
- **Limited administrative capacity and the need for external expertise.** Projects often need to engage external specialists and hire more experienced staff as local authorities and project consortia may lack expertise with cutting-edge technologies.
- **Consortium complexity.** Cities often need private partners willing to invest in innovative technologies at scale.
- **Large investment volumes.** Urban projects may be below the financial thresholds of the large-scale windows.

As a preliminary step, cities should weigh their specific context against these considerations before applying for IF support. Cities that decide to apply, can strengthen their applications by clearly demonstrating that they are essential partners in consortia and/or key enablers of innovative climate-neutral solutions. For example, a city could act as a project pilot site to demonstrate the impact of innovative technologies relevant to the climate transition of urban systems. Finally, they can also partner with utilities, district heating operators, transport companies, or industrial clusters to co-develop proposals that meet the IF's innovation criteria. These considerations suggest that it is not an easily accessible fund for most municipalities, even for cities under the Cities Mission that are pioneers in climate action.

2.5 Practical guidance: How can Mission Cities align CCC initiatives with the priorities of the IF?

Unlike the MF (see Section 3 below), allocations under the IF are very transparent and information is easily accessible. As with other EU funding streams under direct management, the IF is disbursed through regular calls for proposals with specific thematic focuses.³¹

As mentioned above, PDA is available for applicants that wish to improve and further develop their project idea. After contacting the national contact point, a city's next step is to seek PDA by responding to an EIB call.³² To submit the request, the city must already have a business plan and initial financial model, a feasibility study and related technical studies, a contracting strategy or relevant agreements, and other supporting studies demonstrating project innovation, GHG emissions reduction potential, and replicability potential.

PDA will help the city tailor the project to the appropriate IF call(s), which are thematic and have different criteria depending on the topic.

³¹ As noted above, this report does not include assessment of the auctions that are also organised within the IF for specific projects.

³² <https://www.eib.org/en/products/mandates-partnerships/innovation-fund/index.htm>

The quality of information on projects funded by the IF is high quality and very precise. Many industrial innovations developed with support from the IF are relevant for Mission Cities climate initiatives.

Mission Cities can apply to access the Fund itself, as part of a consortium, or (most commonly) through their urban services providers (e.g., utilities, waste treatment companies) or industrial players active in the area. The following categories of innovations are most relevant for Mission Cities:

- Geothermal energy.
- Solar energy.
- Other energy storage.
- Renewable heating and cooling.
- Road transport.

2.6 Examples of projects supported by the IF

2.6.1 Helsingborg, Sweden

The city of Helsingborg, in southern Sweden, is one of the only direct examples where the IF has been used to finance a lighthouse CCC project: a high-performance waste-to-heat generation facility with carbon capture storage services that is scheduled to come into operation in 2028. The project, INNOZHERO, received an IF grant of about €54 million, awarded in 2023 to the municipal company that is responsible for heat provision in the city.³³

2.6.2 Geretsried, Germany

The Eavor-Loop at Geretsried in Bavaria, Germany, will provide clean, dispatchable, and baseload energy for district heating and/or power generation. Operating under a natural thermosiphon that does not require a pump or an aquifer, fresh water will circulate through a large underground radiator that is buried at 4,500 metres, after which the resulting heat will be carried to the surface. The pilot has been granted €91 million from the IF. The geothermal energy sector is keenly waiting for the results of this pilot, which is viewed as involving a very promising innovation with good potential to be replicated in many different geological contexts, unlike most other geothermal technologies.

³³ https://ec.europa.eu/assets/cinea/project_fiches/innovation_fund/101191008.pdf

2.7 Contacts

The IF is fully integrated into the EU budget and is the sole responsibility of the Commission, meaning it falls under the European Court of Auditors competencies. In the EU Member State, national contact points are available to provide further information on the IF and its interactions with national funding instruments and other EU programmes.³⁴

3.3. Analysis of the Modernisation Fund (MF)

3.1 Scope and governance

The MF is a targeted programme designed to support the energy systems of the EU Member States most dependent on fossil fuels and therefore most affected by the ETS. It was established in 2021 and will operate until 2030. The MF is financed by 2% of ETS auction revenues from 2021 onwards for the initial group of 10 beneficiary countries, with an additional 2.5% of ETS auction revenues from 2024 allocated to a total of 13 lower-income Member States.³⁵ The MF is disbursed through grants, although it can also operate via State aid schemes (in which case, the grant goes to a multi-annual programme of sub-grants). To date, €19 billion has been disbursed in grants since 2021³⁶.

3.2 Priorities

The MF supports renewables, efficiency, storage, network, and heating and cooling projects, with municipal and regional projects explicitly eligible. It does not fund the preparation or development of projects, focusing only on implementation. A minimum of 80% of the MF should be allocated to priority activities. Among these activities, the following are most relevant for Mission Cities:

- **Generating and using electricity from renewable sources**
 - Renewable hydrogen
 - Heating and cooling from renewable sources
- **Reducing overall energy use through energy efficiency**
 - Transport
 - Buildings
 - Waste
- **Energy storage and modernising of energy networks**
 - Demand-side management

³⁴ https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/national-contact-points_en

³⁵ In addition: Voluntary transfers of allowances by beneficiary Member States from their national allocations to their Modernisation Fund envelope (free allocations and solidarity allowances) are also possible and used by 6 countries, for Romania, Czechia and Slovakia, these transfers are substantial, amounting to EUR 10.77 billion, EUR 9.69 billion, and EUR 2.26 billion respectively (CEE Bankwatch).

³⁶ <https://www.modernisationfund.eu/>

- District heating pipelines
- Infrastructure for zero-emission mobility
- **Supporting low-income households, including in rural and remote areas, to address energy poverty and to modernise their heating systems**

The MF can be used both for a single project (e.g., train line electrification, co-generation plant upgrade) or to support multi-annual programmes (e.g., residential renovation support schemes, solar power generation for households) up to five years.

3.3 Eligibility criteria and geographical coverage

Only less-developed countries are eligible for the MF³⁷. In 2024 alone, this resulted in almost €6 billion in investments across 10 of the 13 eligible countries. For example, both Portugal and Greece currently have more than €1 billion in their national envelopes still to be allocated and disbursed before 2030.

3.4 Relevance for Mission Cities and CCCs: barriers and mitigation

Since the launch of the MF, most investments have taken place at the local level – for example, in solar power installations, energy efficiency improvements in public buildings, and heat storage solutions. In previous years, Romania used the MF to support self-consumption in public institutions and to modernise district heating systems. Calls have also financed new solar, wind, and hydro capacity for self-consumption by public institutions, as well as battery storage solutions and the rehabilitation of 'smart' district heating networks.

In Poland, MF support has been directed towards the digitisation of distribution grids, the development of renewable heat sources for district heating systems, and grid stabilisation or storage schemes, thereby improving conditions for local renewable energy to be connected and supplied to municipalities. In Croatia, Zagreb accessed the MF, receiving €21 million, via its public transport company for the electrification of its tram fleet.³⁸

The MF operates largely outside standard budgetary procedures. This creates room to design national MF calls that could systematically support the implementation of CCC, provided that such calls are accessible to all Mission Cities. Mission Cities should jointly engage with their respective ministries to propose the establishment of a dedicated 'Mission Cities' call under the MF.

A structured dialogue at the EU level involving Member State representatives and the Commission (DG CLIMA) on how to strengthen a territorial approach to climate neutrality within the MF would be highly valuable.

³⁷ An initial group of 10 beneficiary countries in 2021, which was expanded to include Greece, Portugal, and Slovenia in 2023. This coverage makes the MF accessible by 34 Mission Cities: Tartu, Liepaja, Riga, Taurage, Vilnius, Krakow, Lodz, Rzeszów, Warsaw, Wrocław, Liberec, Bratislava, Košice, Budapest, Miskolc, Pécs, Gabrovo, Sofia, Bucharest, Cluj-Napoca, Suceava, Athens, Ioannina, Kalamata, Kozani, Thessaloniki, Trikala, Zagreb, Kranj, Ljubljana, Velenje, Guimarães, Porto and Lisbon.

³⁸ <https://www.fzoeu.hr/en/contract-signed-with-zet-for-electric-bus-charging-depo-worth-over-21-million-euros/10300>

It is currently unclear if the MF has been used to support the capacities of local authorities, local energy agencies, or one-stop-shops, despite these entities being widely recognised as key actors in deploying residential renovation programmes, energy communities, and urban heating and cooling plans.

3.5 Practical guidance: How can Mission Cities align CCC initiatives with the priorities of the MF?

As part of the CCC process, Mission Cities developed CIPs outlining their strategy for funding their transition to climate neutrality. Many elements of these CIPs are eligible under the MF (e.g., residential refurbishment, the transition of SMEs, renewable energy, upgrading urban public transport, improving transport infrastructure, facilitating the shift of municipal utilities away from fossil fuels). To date, a significant share of MF allocations has been directed at district heating and cooling generation and infrastructure. Utilities – whether in energy, transport, or waste – are ‘natural’ beneficiaries of the MF, as it supports investment in infrastructure.

The MF is administered by the EIB, which assesses proposals submitted by Member States. For non-priority investments, an investment committee, composed of one representative from each participating Member State, three representatives from non-eligible Member States, a representative of the EIB, and a representative from the Commission (who serves as committee chair) will assess and agree on submitted proposals. The MF does not fall under the scrutiny of the European Court of Auditors, nor can the European Parliament exercise democratic oversight, as it is not an ‘own resources’ funding instrument.

3.6 Examples of projects supported by the MF

The following two initiatives, which both received MF grants, are illustrative for Mission Cities:

- In Athens, Greece, part of the bus fleet will be replaced using MF grants that were approved in 2024: €56 million to purchase 100 battery electric buses (BEBs) to replace 100 diesel buses and another grant of €37.5 million for replace diesel buses with 50 fuel-cell electric buses powered by renewable hydrogen.
- In the Czech Republic, the MF is funding various schemes to support photovoltaic plant and municipal solar deployment. However, access to the funds is restricted to municipalities of less than 3,000 inhabitants. One scheme (funding of €63 million) covers the installation of new photovoltaic power plants with an installed capacity of up to 1 MWp. Small municipalities can receive up to 75% support for the acquisition of photovoltaic systems for installation on roofs and canopies of public (non-commercial) buildings.

3.7 Contacts

Timelines for calls of proposals to access the Funds are different from country to country and scope can also vary. Drawing on the list of the Modernisation investment Committee, a list of the ministries in charge of decision-making and contacts at the managing authorities is provided in Annex 2. Member States have significant autonomy to design schemes and decide on the MF implementation.

Conclusion and final recommendations

Analysis for this report indicates that, for eligible Member States, the MF has the greatest potential as an 'EU funding' source for city transition plans, given its broad focus on energy systems, including public transport. In theory, a share of the MF in each eligible country could be allocated to supporting Mission Cities' CIPs.

In practice, the design of national calls and priorities has generally not included consultation with key stakeholders. To ensure these instruments are more relevant to cities and more responsive to their needs, the design process would benefit from incorporating a territorial approach, particularly in relation to the modernisation of energy systems. In addition, some calls are aimed specifically at small municipalities, thereby excluding Mission Cities from eligibility. This could be reconsidered to better align the MF with city priorities.

A gap is also evident in the planning of investments. Although EIB assessments consistently reference National Energy and Climate Plans (NECP), the link is often vague, creating a risk that funding may not be allocated to the most pressing investment needs. In contrast, Hungary's national geothermal heat strategy appears to have supported the design of coherent calls (even though larger cities are still excluded) and may provide a useful example for replication.

The most significant gap identified in research for this report is a relative lack of support and mechanisms to facilitate the participation of local, regional, and national authorities in the strategic planning of MF deployment. Possible solutions to address this include the reinforcement of local and regional energy agencies and/or the creation of 'House of Change'³⁹ local offices for future calls.

In each eligible country, Mission Cities and Mission-minded cities could initiate dialogue with finance and energy ministries to propose specific support schemes that reflect MF priorities through a regionally integrated approach. It would also be beneficial for the EIB and the Commission, in their conversations with Member States, to illustrate how such transition schemes could be effectively supported.

Regarding the IF, accessing it directly remains challenging for municipalities. However, clear potential exists for municipal companies – especially those operating in waste, heat, and energy – to tap into the fund when pursuing truly innovative solutions. This potential pathway to funding appropriate projects should be supported and encouraged. Access to the IF is currently further hindered by a lack of awareness and limited capacity among authorities at all levels to meaningfully engage in the necessary discussions, planning, and project development and implement in a sufficiently strategic way. Mission Cities could potentially strengthen their ability to access the IF by creating partnerships with private companies and positioning themselves as pilot sites for innovative and replicable climate and energy solutions.

Both funds were created before the Covid and energy prices crises. In response to these crises, the EU invested heavily in two new funding instruments: the Recovery and Resilience Facility and REPowerEU (the latter repurposing existing funds), which both target similar objectives related to the transformation of energy systems. As a result, the EU funding landscape for the energy transition has become more complex and difficult to navigate. Each funding stream has its own governance structure, most are implemented and administered at a national level, and eligibility for each stream varies across Member States. While this currently precludes a fully comprehensive overview of all EU funding available for each individual Mission City CIP, the recent launch of the 'Cities Portal' may help improve awareness and understanding of this landscape.⁴⁰

³⁹ <https://netzerocities.eu/germanys-pilot-activity-colab-committed-to-local-climate-action-building/>

⁴⁰ https://regions-and-cities.ec.europa.eu/cities-portal_en

Even while drawing lessons and inspiration from the EU funding mechanisms financed using ETS revenues – which represent a well-intentioned and ambitious approach – the IF and MF both fall short of functioning as integrated ‘Transition Funds’. Such fund or funds would need to support cross-sector investments for projects of all sizes, as represented in the CCCs of Mission Cities. While Mission Cities can access the IF and the MF in specific and limited circumstances, the funds do not, in their current form, serve as critical and impactful sources of funding support.

AWAITING APPROVAL BY THE EUROPEAN COMMISSION

Annex 1

EU Emissions Trading System (ETS)

The current (fourth) phase of the ETS(1) runs from 2021 to 2030. For this period, the EU has set a new, higher target of decreasing GHG emissions by 62%, compared to 2005 levels.

The ETS currently applies to:

- Power plants.
- A wide range of energy-intensive industrial sectors.
- Flights within the EU and the European Economic Area, and departing flights to Switzerland and the United Kingdom.
- Maritime transport (surrendering obligations will be introduced gradually between 2024 and 2026).
- Emissions of carbon dioxide, nitrous oxide, perfluorocarbons, and methane.

A new separate, standalone ETS(2) has been set up to cover buildings, road transport and fuels for additional sectors that correspond to industrial activities not covered by the existing ETS(1).⁴¹

Implementation rules of the Modernisation Fund

European Commission, Commission Implementing Regulation (EU) 2020/1001 of 9 July 2020 laying down detailed rules for the application of Directive 2003/87/EC of the European Parliament and of the Council as regards the operation of the Modernisation Fund supporting investments to modernise the energy systems and to improve energy efficiency of certain Member States., consolidated version, European Commission, 9 July 2020.⁴²

⁴¹ More information: <https://eur-lex.europa.eu/EN/legal-content/summary/eu-emissions-trading-system.html> - Legal text for the Innovation Fund: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02019R0856-20231121>

⁴² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02020R1001-20240101>

Annex 2

Contacts for the Modernisation Fund

(Process to instruct funding proposals is done at a nation level)

At the Commission

Directorate Innovation for a Low Carbon, Resilient Economy in DG Climate Action

At the European Investment Bank

Modernisation Fund and ETS Decarbonisation Fund unit

List of Ministries in charge of the Modernisation Fund

Bulgaria: Ministry of Energy,

Czech Republic: Section of EU Funds, Economic and Voluntary Instruments; Ministry of the Environment of the Czech Republic

Estonia: Ministry of Environment

Croatia: Ministry of Environmental Protection and Green Transition, Green Transition Directorate

Latvia: Financial Instruments Department, Ministry of Climate and Energy of the Republic of Latvia

Lithuania: Environmental Projects Management Agency under the Ministry of Environment of Lithuania

Hungary: Department for Energy and Green Planning, Programming, Hungarian Ministry of Energy

Poland: Department of Foreign Affairs, Ministry of the Environment

Romania: Directorate for Energy Policies, Ministry for Energy

Slovenia : Directorate for Climate Policies, Ministry of Environment, Climate and Energy

Slovakia: Ministry of the Environment of the Slovak Republic, Climate Change Mitigation Department

Portugal: Directorate for Energy and Geology, Ministry for Environment and Energy

Greece: Secretariat General for Energy and Mineral Resources at the Ministry of Environment and Energy.