

EU MISSIONS CLIMATE-NEUTRAL & SMART CITIES

CCC HIGHLIGHTS

BARRIERS TO CLIMATE NEUTRALITY

SUMMARY

As of October 2024, the EU Mission Label has been awarded to 53 cities. Ten cities received the Label in October 2023, 23 more in March 2024, and the latest 20 in October 2024. The Label recognises each city's commitment to achieving climate neutrality by 2030, as outlined in their respective Climate City Contracts (CCCs). This factsheet, as part of a wider series titled "CCC Highlights", explores the types of barriers that the labelled cities identified as major obstacles to the implementation of their path to climate neutrality and, in particular, to the success of the planned measures set out in their action plans.

Main takeaways:

• Institutional barriers are the most significant obstacles cities face in achieving climate neutrality. The primary institutional barriers consist of **regulatory challenges** and **fragmentation of responsibilities** across different government levels.

• **Cross-sectoral barriers** are the most significant challenge, with over 350 identified barriers, highlighting the need for stronger collaboration across sectors to overcome institutional-related challenges in climate actions.

• **Behavioural barriers** account for 19% of all mapped challenges. Within this category, different types can be identified, such as a **lack of participation**, **opposition** to climate action, and a **lack of awareness** of society in climate actions.

• **Infrastructure barriers,** namely those inherently linked to the infrastructure and technologies necessary to achieve climate neutrality, were also significantly identified by the cities (18%). The required **size of infrastructure** and **high upfront costs** of climate mitigation were most often mentioned for this category.



Second Cohort of Mission Label Cities (Label awarded in March 2024)

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• Sønderborg	• loannina	• Seville
• Cluj-Napoca	• Kalamata	• Pecs
• Klagenfurt	• Kozani	• Malmö
• Mannheim	 Thessaloniki 	• Guimaraes
• Valladolid	• Heidelberg	• Lisbon
• Vitoria-Gasteiz	• Leuven	• Florence
• Madrid	• Espoo	• Parma
• Stockholm	• Lahti	• Marseille
• Valencia	• Lappeenranta	• Lyon
• Zaragoza	• Tampere	• Limassol
	• Turku	• Izmir
	• Barcelona	

Third Cohort of Mission Label Cities (Label awarded in October 2024)

• Gothenburg

First Cohort of Mission Label Cities

(Label awarded in October 2023)

- Kranj
- Prato
- Milan
- Porto
- Ljubljana
- Aachen
- Bucharest
- The Hague
- Bergamo

- Trikala
- Gävle
- Ume
- Miskolc
- Turin
- Bologna
- Münste
- Suceava
- Eilat
- Liepaja





WHAT IS THE MISSION LABEL?



The Mission Label is the European Commission's recognition of cities' successful development of their CCCs, which outline the overall vision for climate neutrality and contain an action plan and investment strategy.

A DIVERSE RANGE OF BARRIERS

Across their CCCs, and particularly within their Action Plans, the 53 Mission-labelled cities have identified both existing and anticipated barriers that could hinder their progress toward climate neutrality. In total, cities reported **915 barriers**, with an average of **17 per city**, though one city identified as many as **56** distinct challenges.

Barriers to implementing climate-mitigation actions were categorised into institutional, infrastructural, behavioural, and other barriers. Considering the aggregated data, institutional barriers emerge as the most significant challenges, making up 56% of all reported obstacles. Behavioural barriers follow at 19%, while infrastructural barriers account for 18%. The remaining 7% fall outside predefined categories and are classified as "other barriers".



Even when examining data on a city-by-city basis, the pattern holds: all cities report that the most significant obstacles to achieving climate neutrality are institutional in nature (Figure 2), such as capacity constraints, challenges with multi-level governance integration, and regulatory red tape. This underscores institutional frameworks' critical role in shaping cities' climate actions. The following section delves deeper into the definition of these barrier types, offering a closer look at their subcategories and specific examples from the cities.





When examining the sectors cities reference challenges to, **cross-sectoral barriers stand out as the most prevalent**, surpassing sector-specific challenges (Figure 3). More than 350 barriers are identified within the cross-sectoral category, making it the most significant challenge compared to others. This highlights the interconnected nature of barriers that span multiple domains.

"Lack of collaboration between sectors - implementing effective emission reduction measures requires close collaboration between different sectors, such as transport, energy and the residential sector, but this can be difficult to achieve due to differences in interests and perspectives." **City of Suceava**





INSTITUTIONAL BARRIERS



Institutional barriers were categorised by subtype and analysed according to the level of government responsible for them, as identified by cities in their CCCs. The bar chart below (Figure 4) illustrates the distribution of these barriers across various governance levels — local, local/regional, local/ regional/national, and local/regional/national/international. Barriers not explicitly attributed to a specific governance level in the CCCs are marked as "no data".



Figure 4. Subtypes of institutional barriers according to level of government

Among the different types of institutional barriers, regulatory challenges and fragmentation of responsibilities across different government levels account for 31% and 24%, respectively, of all the mapped institutional barriers. Lack of funds and financing schemes, and capacity and skills represent 20% and 15%, respectively, of the total mapped barriers. Only a few cities mentioned political risks and access to data (7% and 4%, respectively).

As illustrated in Figure 4, **regulatory obstacles** are referred to as problems caused or to be addressed at local, national, and European levels, demonstrating how regulatory bottlenecks are not confined to a single tier of government but rather exist across different layers of decision-making. Cities frequently cite issues such as excessive regulations, bureaucratic complexity, and red tape. Common examples include difficulties with **public procurement rules** and frameworks for establishing **public-private partnerships**. At the local level, these barriers often arise from a need for more capacity within public administrations to navigate complex and rapidly changing legal frameworks across different government levels. At the national level, however, these barriers typically refer to misalignments between existing legal frameworks and the implementation procedures required at the local level to achieve climate neutrality. Examples include issues related to land management for parking regulation, energy policies for renewable infrastructure development, and taxation or incentives for specific sustainable practices.

"A factor influencing traffic volumes is the taxation on work travel. The (national) government has suggested to return to a former system benefiting long work travels by car." **City of Stockholm**



Fragmentation of responsibilities, considering both horizontal and vertical governance integration, emerged as another key obstacle for cities when implementing climate actions. Horizontally, cities report a lack of coordination among local entities, including agencies, service providers, citizens, and private actors, as well as within their own administrations, where departments often work in silos rather than collaboratively toward shared goals. Vertically, cities point to poor integration with metropolitan, national, and EU institutions, whose policies and actions are often misaligned with local needs. While these barriers sometimes overlap with regulatory challenges, the distinction lies in their nature: regulatory barriers refer to specific issues within existing legal frameworks that hinder action, while fragmentation of responsibilities reflects cities' perspectives on the misalignment of climate-related jurisdictions. In the latter case, cities report that the responsibility for implementing certain actions lies outside of their boundaries, leaving the city administration with no leverage to ensure that all needed actors engage in the journey to climate neutrality.

"Another already described systemic barrier is that only one-third of the measures are under the influence of the City and the Mannheim Group. One third are influenced by the framework conditions at EU, National and State Level. And one third is dependent on the private capital, companies and citizens." **City of Mannheim**

"Working in Silos: The city and its publicly owned companies have a variety of activities aimed at increasing sustainability. However, these activities are often not integrated, which limits their overall impact. This lack of integration is slowing down progress towards climate neutrality." **City of Umea**

Within the broad category of institutional barriers, the **lack of funding and financial schemes** significantly limits cities' ability to achieve climate neutrality. This challenge often stems from the constrained financial resources of local governments, both in terms of available funds and the capacity needed to navigate diverse financial opportunities across governance levels. In many cases, the cities that mention this barrier in their CCCs do not specifically link it to the local government. Rather, they refer to it as a general limitation, not tied to any specific entity. It often reflects the uncertainty cities face when planning the financial coverage for their Action Plans, especially in a multi-actor context where responsibilities are fragmented and unclear.

"Subsidy procedures based on calls for proposals are not appropriate. They are often topdown and can sometimes be out of step with the projects' ambitions and resources. In addition, some criteria can appear to be restrictive and unsuitable for projects. Also such call for proposals require a huge amount of time to respond, and in some cases there is strong competition between local authorities." **City of Lyon**

Another significant type of institutional barrier is the **lack of capacity and skills**. This, among others, includes a shortage of technical and specialised skills, a limited number of human resources within organisations, and an overall constrained organisational capacity to manage complex issues effectively. These challenges hinder organisations' ability to tackle the complex tasks required for the successful implementation of sustainable initiatives and climate goals.

"There is a pressing lack of people with the skills to contribute to the climate transition on all levels, including people on the implementation level (installers, overseers, technicians) and on the policy level (developing the right policy instruments). It takes cooperation between practical and academic education providers, employers, and governments to address these shortages." **City of the Hague**

BEHAVIOURAL BARRIERS



Figure 5. Behavioural barriers by subtypes

Behavioural barriers to climate action, as identified in the cities' Action Plans, account for 19% of all mapped challenges. Due to the broad nature of this category, further classification was used to assess different types of behavioural barriers.

• Lack of participation: Cities noted difficulties in engaging broader society in climate policies, with a common perception that there is a disconnect between communities, private entities and the institutions responsible for implementing climate actions. The absence of local deliberative platforms limits citizen involvement, while embedded social norms and public distrust further prevent citizens from being empowered and involved in decision-making processes.

"In the case of waste management, the main barrier is the insufficient participation of citizens and businesses in selection and separation of waste at source, which leads, on the one hand, to insufficient waste separation, and on the other hand, to low quality separated waste, which makes recycling processes inefficient and leads to downcycling. In addition, some waste prevention actions are ineffective due to low reuse rates." **City of Vitoria-Gasteiz**

• Lack of awareness: Cities highlighted a lack of awareness or shared knowledge among society, which can hinder both the acceptance of climate actions and the engagement of citizens in taking ownership of climate action efforts. This often manifests in low levels of public understanding about the urgency or benefits of proposed climate measures. Despite growing concern over climate issues, many individuals lack information on available sustainable solutions and their tangible benefits.

"Awareness and education: a challenge is the lack of public awareness and understanding of the importance of energy efficient buildings and their role in reducing carbon emissions, with the effect of limited support for sustainable building practices and slow adoption of energy efficient technologies." **City of Pécs**

"There is a need for greater awareness of the real and noticeable impacts of climate change among the population, such as those resulting from heat or the concentration of potentially harmful gases in the air. To overcome this barrier, the city of Zaragoza will seek to work on public information activities, as well as improving communication and early warning systems for potential health hazards." **City of Zaragoza**

• **Opposition to climate action:** Cities anticipate resistance to changes that challenge the status quo. This opposition often arises in sectors requiring major transformations, such as mobility and the building industry, driven by concerns over job security, social impacts, and resistance to new or changes in technologies.

"Ambitious interventions such as the elimination of parking spaces in favour of natural infrastructure can meet with resistance from the public." **City of Leuven**

"Climate action is not seen as a top priority in the eyes of all our citizens, particularly when we refer to the communities that are prone to poverty and have a reduced ability to understand such matters. Thus, we expect that some residents will oppose to the massive financial investments needed in order to achieve the proposed climate neutrality interventions." **City of Cluj-Napoca**

"Industry resistance to change: the traditional construction and real estate industry may be resistant to adopting new technologies and practices that are energy efficient but require upfront investment, which may lead to slow uptake of energy-efficient building methods and technologies." **City of Pécs**

These subcategories often overlap. For instance, a lack of awareness can lead to lower levels of ownership and participation. However, these distinctions allow for grasping the different ways in which cities frame the problem. Whether the issue is perceived as a knowledge gap or opposition to change, the expected action to address the root causes might change. A comparative analysis of cities' planned actions could provide deeper insights into how they intend to overcome these behavioural challenges.



INFRASTRUCTURAL BARRIERS

Beyond institutional and behavioural barriers, cities also face significant challenges related to infrastructure and technology, which are crucial for achieving climate neutrality. **The size of infrastructure and high upfront costs continue to be the most frequently cited challenges**, underlining the logistical and financial hurdles cities encounter in implementing climate actions.



Figure 6. Subtypes of Infrastructural Barriers

The size of the infrastructure represents 43% of the infrastructural barriers identified. This refers to the capacity and scale of existing infrastructure, whose continued use due to its technological lifespan will impact cities' journey to climate neutrality. A common example is the limited availability of charging infrastructure for electric vehicles (EVs) and the challenges of expanding it due to space constraints and land-use conflicts. Another frequent issue is the existing transportation networks or heating systems that were developed without flexibility for easy transformation into more sustainable alternatives.

"Lack of space in renewable energy cables across the country, causing delays in PV implementation. Inadequate electrical grid infrastructure is hindering the efficient installation of Solar PV, impeding the integration of solar panels into the energy network." **City of Eilat**

"The production and use of biogas from biomass and biodegradable waste components is of interest to the municipality, especially as energy source to the waste collection vehicles. The region's waste treatment plant (Resinorte) does not currently have the necessary infrastructure for this type of action, nevertheless, investments are being made to make this possible." **City of Guimarães**

"Charging infrastructure is a bottle neck in shift to e-mobility." **City of Espoo**

While there may be overlaps, it is important to distinguish between the institutional barrier referred to before as lack of funds and financing schemes and the upfront infrastructure costs. Concerning the former, cities note that achieving climate neutrality is hindered by the absence of adequate financing mechanisms or available funds from public or private sources to support the duration of projects. In contrast, in the case of upfront costs, cities simply refer to the immediate capital required to implement specific infrastructure.

"New technologies, new solutions for climate action require very high and sometimes prohibitive costs." **City of Vitoria-Gasteiz**



OTHER BARRIERS

Although they represent only 7% of the barriers cited by cities, what has been categorised as "other barriers" reflects a broader way in which cities frame their position relative to the ambitious goal of achieving climate neutrality. While designing detailed action and investment plans with specific measures, milestones, and timelines, some cities acknowledge the possibility of external factors impacting their climate journey beyond their control. These external factors include:

- **Market uncertainty**, including inflation, financial instability, or supply chain disruptions resulting from geopolitical events or public health crises.
- Climate-related unforeseen and extreme events, including heatwaves, droughts, or heavy rainfall.
- **Territorial morphology and contextual factors**, such as harsh winters, can complicate the shift from private car use to sustainable mobility options.

While not directly within a city's control, these external influences emphasise the importance of flexibility and resilience when it comes to climate strategies, as cities must adapt to evolving conditions that could derail or delay their progress toward climate neutrality.

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