



Turku is a forerunner in climate mitigation, but has catching up to do in climate adaptation

The study assesses Turku's climate policy in comparison with Malmö, Groningen, and Rostock

Cities are important climate policy actors. In a comparative assessment of four forerunner cities, Turku's climate policy strengths include ambitious policy targets, strong political support, financial autonomy, and the capacity to steer the transformation of energy production. The areas where Turku can learn from others include climate adaptation and citizen engagement.

RECOMMENDATIONS

Set up an advisory committee consisting of external climate experts

Integrate climate mitigation and adaptation and set up a monitoring system for climate adaptation

Strengthen the city administration's internal coordination of climate policies and projects

Develop a proactive approach that facilitates local engagement

Become a climate policy leader by developing a "Turku model" and demonstrating it actively on the international stage

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DATA & METHODS

Policy documents and 27 interviews, content analysis

KEY WORDS

climate policy, governance, city comparisons

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CITIES ARE AT THE FOREFRONT of combating climate change and adapting to its impacts. They play a key role in a societal transition towards a future fossil-free society. The majority of the world's population lives in urban areas and the majority of the global energy supply is consumed in them. Cities are also challenged by climate hazards, such as intense precipitation and heat waves. However, there is not much comparative research yet on cities as climate policy actors.

The Finnish-German *Matching Forerunner Cities* research project has assessed Turku's climate policy by comparing its performance with that of Malmö (Sweden), Groningen (the Netherlands), and Rostock (Germany). All four cities have gained the reputation of nationally being a forerunner city in terms of sustainable development and climate policy. Located in advanced democracies in Northern and Continental Europe, they are all old university cities, roughly the same size, and share a Hanseatic heritage. Their economic base has historically relied on maritime trade, but has since diversified and is increasingly dominated by service industries.¹

Turku's climate policy assessed in comparison

The city of Turku's climate policy target is to reach climate neutrality by 2029. The target has unanimous political support across political parties. The policy is steered and implemented by a climate strategy that is supported by an organizational structure pulling together administrative resources from the central administration, the environmental office, and the Union of the Baltic Cities Sustainable City Commission.

From the viewpoint of our research, the city's ambitions are supported by a relatively high degree of financial autonomy (compared to Groningen and Rostock) and a high capacity to steer the transformation of the energy system (compared to Malmö and Groningen). Another advantage is that the governance structures provide opportunities to develop regionally defined climate solutions, coordinated with city subsidiaries and regional cooperation partners.

Turku's strategy focuses on climate mitigation policies, while climate adaptation policies have not received the same attention. For instance, Turku lacks a systematic monitoring system for progress in climate adaptation. Some reference cities have adopted a more balanced approach. For instance, Rostock is a signatory to *Mayors Adapt*, an initiative of the EU's *Covenant of Mayors (CoM)* on climate adaptation. In Malmö, a national scheme serves as the basis for annual adaptation reporting.

Citizen engagement in local climate action is relatively low in Turku, especially in comparison to Groningen and Rostock. This is partly due to different societal engagement norms, a broader practice of forms of direct democracy in Germany and the Netherlands, and a more systematic pro-active approach for setting up institutional arrangements that facilitate local engagement.

COVENANT OF MAYORS FOR CLIMATE AND ENERGY

The Covenant of Mayors initiative (CoM, 2008 onwards) aims to engage and support cities and towns to commit to reaching the EU climate mitigation and adaptation targets. *Mayors Adapt* (2014) is a climate change adaptation tool set up by the European Commission. The two initiatives have merged in 2015 and joined forces with another city initiative, the Compact of Mayors. The resulting Global Covenant of Mayors for Climate and Energy (2016) is the world's largest movement for local climate and energy actions.

See <https://www.covenantofmayors.eu>

¹ *The climate policies of Malmö, Groningen, and Rostock are reviewed in detail and a broader comparison of the four cities' policies is provided in a Research Report published in the Turku Urban Research Programme series.*

THE FOUR CITIES COMPARED

	Turku (Finland)	Malmö (Sweden)	Groningen (the Netherlands)	Rostock (Germany)
AMBITIONS	Climate neutral by 2029	Climate neutral by 2030	Climate neutral by 2035 and climate-adaptive by 2050	Climate neutral by 2035
CLIMATE POLICY FOCUS	Strong focus on climate mitigation. Limited focus on climate adaptation	Climate mitigation prioritized. Adaptation measures established and expanding	Main focus on climate mitigation. Increasing adaptation focus	Balanced mitigation and adaptation approach
STRATEGIC CLIMATE POLICY TOOLS	Single climate strategy	No separate climate policy or strategy. Mitigation and adaptation activities integrated in various existing policies	Separate climate mitigation and adaptation strategies	Separate climate mitigation and adaptation strategy
INSTITUTIONAL CAPACITY	Extensive local institutional and financial autonomy provides steering capacity for voluntary climate activities	Extensive local institutional and financial autonomy provides steering capacity for voluntary climate activities	Local institutional autonomy but financially dependent on the state. Voluntary as well as nationally determined local climate activities	Local institutional autonomy but financially dependent on the state. Voluntary climate activities
CLIMATE POLICY IMPLEMENTATION	Implementation outsourced to city subsidiaries. Regional cooperation entities via investment programs and demonstration projects	Implementation outsourced to city subsidiaries. Regional cooperation entities and demonstration projects	Implementation in selected city units via demonstration projects	Implementation assigned to a city utility company and development projects in selected city districts
CLIMATE POLICY MONITORING – Mitigation	Based on models developed by the CoM and the United Nations	Based on a Swedish monitoring model that adheres to EU standards	Based on models developed by the CoM	Based on models developed by the CoM
– Adaptation	Progress rarely monitored	Progress externally reported	No monitoring	Based on Mayors Adapt
CITIZEN ENGAGEMENT ON CLIMATE POLICY	Relatively low	Relatively low	Relatively high. Supported by a neighborhood approach	Relatively high. Institutionalized forms of participation
CLIMATE POLICY AND INTERNATIONAL ACTIVITIES	International activities at the core of climate policy. Generates external funding and builds policy capacity	International policy supports goal setting. Generates external funding, informs decision-making, and supports capacity-building	Climate policy influenced by EU-enabled local climate activity schemes. Occasional engagement in Pan-European local city networks	Climate policy informed by memberships in transnational city networks. Little focus on generating external EU funding

Local governing capacity needs strengthening

Climate governance in Turku is based on a complex setting in which hierarchically organized local government is combined with multi-level climate governance arrangements, including strong links to international initiatives and agreements. Improvements in policy implementation require increased coordination of climate activities, acquired by reorganizing governance and thereby strengthening capacity. Key actors in navigating this transformation are pro-active politicians and dedicated city leadership.

Based on comparative analysis, we can give to the city of Turku three recommendations on possible institutional changes:

- A more systematic and interactive oversight approach could be pursued by setting up an advisory committee, coordinated by the city of Turku, consisting of external climate experts representing the broad field of climate activities. Such a committee could oversee the operational and sectoral routines of the city and help to accentuate coherence and consistency of local climate policies
- More emphasis should be placed on internal coordination of policies and projects. An internal interdepartmental committee could help to facilitate mainstreaming and integrate climate activities across sectors
- Additional operating procedures could be set up to guarantee that all decisions taken by the city board and the city council take climate policy issues into account

Climate mitigation and adaptation should be integrated

While being a mitigation champion, Turku has put less emphasis on climate change adaptation planning. There are three models to integrate climate mitigation and adaptation:

1. Full integration: climate mitigation and adaptation tasks are concentrated in the same organizational unit or strategy
2. Pillarized model: climate mitigation and adaptation tasks allocated to several organizational units or strategies
3. Project-based integration model: climate mitigation and adaptation integrated at the operational level only

Based on the analysis, we recommend that Turku should strengthen and integrate the responsibilities for climate adaptation with the following measures:

- We recommend full organizational integration of climate mitigation and adaptation within a single administrative unit. Studies indicate that cities in the early stages of adaptation planning, such as Turku, particularly benefit from giving priority to full integration
- Revision of strategic documents is required, with the climate adaptation perspective included. However, Turku could also strengthen climate adaptation with its existing climate strategy
- The most promising administrative procedure seems to be combining the full integration model at the strategic level with project-based integration at the operational level. This is an approach pursued in Groningen

More emphasis should be placed on internal coordination of climate mitigation and adaptation policies and projects

- An adequate monitoring system for climate adaptation measures needs to be put in place. The best option to get this task accomplished would be to join the Climate Adapt initiative of the Covenant of Mayors. Participating in the initiative has helped Rostock implement its climate adaptation policy

Citizen engagement should be supported

The Turku Climate Plan 2029 includes a call for engaging local society in developing a carbon-neutral Turku. The annual Climate Forum is the most important event for involving civil society, businesses, and research institutions in climate policy. The existence of the annual Climate Forum demonstrates that the relationship between the city and the local society is considered important. However, Turku could strengthen its relationship with the local society by also using other policy tools to improve involvement. Our recommendations are the following:

- Set up a dedicated climate office for citizen engagement. Establishing a central point of communication will give citizens the possibility for interaction on a frequent and continuous basis. Furthermore, Turku could organize more awareness projects both within and across the city in collaboration with non-governmental organizations. Projects can include educational activities, school and neighborhood allotments, and the organization of communal gardening. Citizen participation can be supported by subsidy schemes to lower the threshold for individuals to engage in mitigation or adaptation activities
- Support the climate policy by development of small-scale neighborhood policy initiatives with low participation thresholds. District-orientated initiatives enable the city to collect information and input from citizens and integrate them into planning and governing processes. It is also possible to create institutionalized forms of citizen involvement, for instance, by setting up advisory citizen panels
- Several reference cities have a history of referenda to steer political action. As the legal possibilities exist to initiate referenda in Finland, Turku could consider making use of them in long-term climate policy planning

Turku can show climate leadership

Leadership requires willingness to become recognized as a model. Malmö and Groningen show how cities can become nationally and internationally known leaders. For Turku to develop from a national pioneer into an acknowledged international leader entails identification of areas where its performance is already outstanding and promoting that nationally and internationally. The following recommendations may help to develop a specific “Turku model”:

- Leadership starts at the local level. With its own goals, the city administration can set an example for citizens and local companies
- Local pilot projects demonstrate forerunner status. For instance, Malmö has used them in a very strategic way for city branding

To develop into an acknowledged international leader entails identification of areas where the city's performance is already outstanding and promoting that nationally and internationally

- Region-building through cooperation is a promising strategy to support climate policy recognition internationally. Leading cities are often located in innovative regions, such as Malmö in the Öresund region or Groningen in the developing “Hydrogen Valley” in the north of the Netherlands
- Cities can gain recognition by competing for awards and participating in certification schemes. The city of Lahti, which was given the European Green Capital Award, is a good example of persistently seeking an international reputation. Malmö and Münster are also very experienced at winning awards and using them for city branding. Turku’s award as the Best Mid-sized Climate City in Europe in 2020 is a good step in this direction
- In international branding of climate policy, Turku could become better known as a Nordic city in the Eastern Baltic and more recognized for its long-standing cooperation with Russia, especially the city of Saint Petersburg
- Turku could also benefit from promoting the Turku Urban Research Program internationally. From an international perspective, the program is an institutional innovation with sufficient potential to become a model for other (forerunner) cities

EU’s climate policy is local

Our study provides new insights into urban climate trajectories. In particular, it sheds light on how the forerunner cities have planned for and implemented their climate policies.

This study is of interest for both the scientific and the urban climate practitioner community. It helps to reduce the gap between urban climate rhetoric and action. Despite the importance of cities in combating and adapting to climate change, climate activities on a local level are still voluntary in most EU member states. There is demand for knowhow of how forerunners achieved their success.

READ MORE

- Kern, K., Grönholm, S., Haupt, W., Hopman, L., Tynkynen, N., & Kettunen, P. (2021). Matching Forerunner Cities: Assessing Turku's Climate Policy in Comparison with Malmö, Groningen and Rostock. *Turku Urban Research Program's Research Reports 1/2021*.
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HOW THE STUDY WAS CONDUCTED

The study is based on extensive document analysis, spanning key policy areas affiliated with climate activities in each city, and a total of 27 semi-structured interviews among the key local climate actors. The analysis was consolidated into a climate city profile for each city, including an overview of the biophysical, social, economic, and political contexts of the local organizational structures, city strategies and plans, governance approaches, and choice of climate policy instruments. The study was conducted by researchers from Åbo Akademi University and the IRS Leibniz Institute for Research on Society and Space.

The study's web page:

leibniz-irs.de/en/research/projects/project/matching-forerunner-cities

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