

Environmental- Climate Change Programme

2015–2017

Helsinki City Planning Department's Environmental-Climate Change Programme 2015–2017

What needs to be done

Helsinki's City Planning department aims to raise the profile of its environmental and climate change initiatives and improve planners' know-how on these issues. The success of Helsinki's **new urban strategy** depends upon having a better understanding of the impact climate change will have and is having on our cities now and in the future and taking account of the EU's environmental and climate change directives.

The environmental and climate change solutions require to be integrated into the spatial planning process and affect all new developments from 2016 onwards. In addition, Helsinki's strategic City Plan, as well as all of its detailed plans, must act as the engine to determine positive change in the management of the city structure in a carbon neutral manner. The basic premise requires all plans to take account of the carbon neutral and energy efficiency strategies in order to address the major challenges of climate change. The City Council's key strategy is to create a high quality urban environment through ensuring that environmental objectives are implemented and monitored actively on an annual basis.

City Plan context

Helsinki's urban strategy is a long-term land-use plan for 2050 that aims to create a dense, compact city structure and having a network city of high quality public rail transport, both radially and transversally. The vast majority of new and infill development will be for housing and jobs, and built on brownfield land whilst retaining the green finger plan of parks and open space. The inner city will be expanded northwards through greater densification of the inner suburbs. Priority will be given to walking and cycling as well as aiming to have even more people using public transport. This will involve transforming the outer motorways into boulevards for new housing, commercial and shops that connect people to the city and region by tram and reduce dependency upon the car. Helsinki in 2050 will be carbon-neutral and an international city connected by a rail tunnel via Tallinn to Europe and gateway to Saint Petersburg.

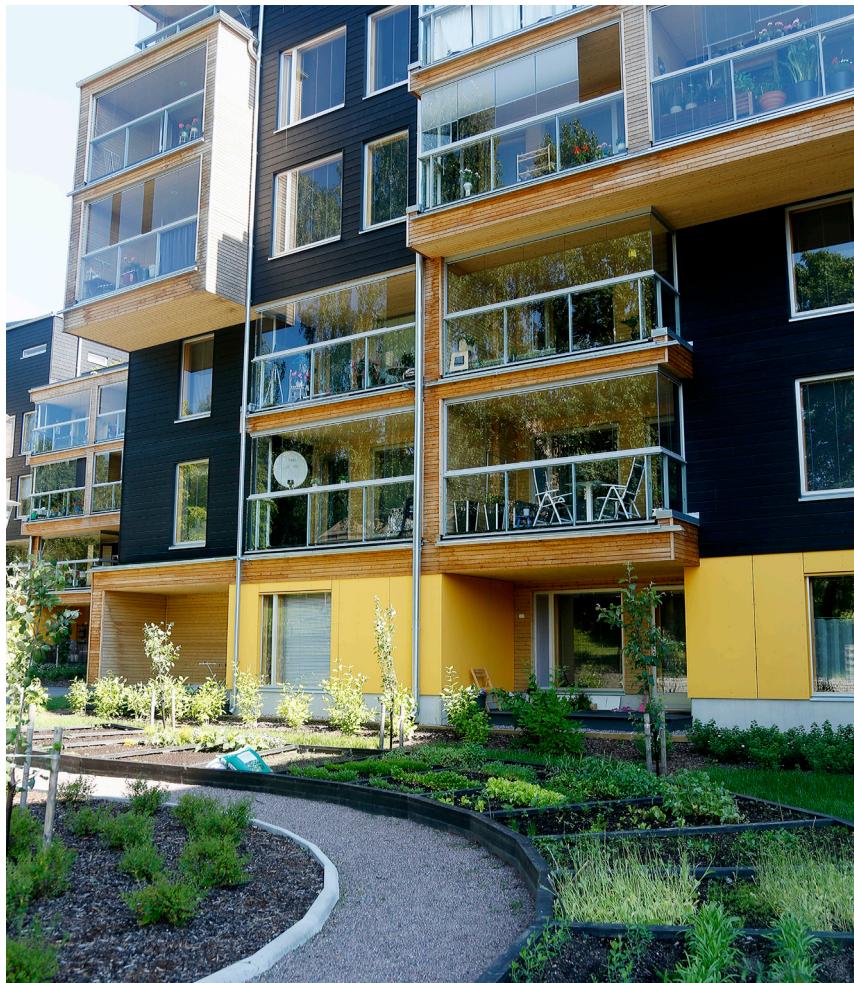
Environmental Aims

The aim of the environmental programme is to understand the main environmental challenges that spatial and traffic planning can impact upon the city structure in a material way. These key issues introduce themes that affect all the main work of the department and needs greater cooperation in order to make a city successful in the future. The implementation of the environmental programme demands greater involvement at the corporate level within the City's administration and equally at the city-regional level.

Environmental Programme's status and monitoring

The environmental programme will form an inclusive part of the department's strategic planning. It places the department's vision and annual work programme to be set within the guiding parameters of the agreed environmental priorities and underlines the need to reduce the impact of carbon emissions through spatial planning. In particular, the need to monitor the implementation of all plans annually in respect of the qualitative environmental measures will be evaluated by all teams having to make a report which demonstrates that such measures are being incorporated within the format of their work.

Wooden apartment building in Eskolantie, Pukinmäki.



City Planning department's 5 core Sustainable Strategies

1. Carbon Emissions

Contribute to the lowering of carbon emissions through spatial planning by having a compact city structure and a high quality public transport system. This in turn requires the reduction in private car dependency by giving priority in spatial planning to walking, cycling and public transport in terms of improving the city structure and quality of life.

2. Adapting to Change

Anticipate the changes in climate conditions in order to take account of these changes in spatial planning for the future benefit of a resilient city.

3. Carbon Neutral City

Create as a precondition of spatial planning that all plans should aim to be carbon neutral and energy efficient in their implementation so that they achieve a carbon neutral city structure in the long term.

4. Quality of the Environment

Develop innovative environmental solutions for the management of a growing city in order to ensure Helsinki is also a healthy city in the future.

5. Helsinki's Green Network

Plan and strengthen the city's nature and recreational green network through its finger-plan structure. Additionally, forward planning of the future green infrastructure will be used as an integrated holistic programme in which nature and green areas are built into new developments through the design of courtyards, green roofs and urban stormwater management systems.

Key Policies – Reasons Why and Policy Measures

The following action points serve as a check list within different spatial planning contexts. The key themes and their related implementation measures may overlap and underline each other's benefits, while in some cases they may be optional according to the nature of the design task at hand. The intention is to benchmark them annually with the latest research and experience gained both in Finland and in neighbouring areas.

1. The City Planning department will reduce car dependence through giving priority in spatial planning to walking, cycling and public transport.

Reason

Spatial planning has a direct impact upon the environment and the level of traffic in the city. Spatial solutions can contribute to the reduction in car usage and thereby car emissions to ensure better management of the city structure.

Action

- efficient block plan structures that help support local services and provide sufficient critical mass for high-quality public transport
- the extension of the city centre northwards into the outer lying suburban districts through intensifying housing densities



- implementing the desired aims of traffic planning and prioritizing a walk-about city, a cycling city, and a city of high-quality public transport
- to create a compact city-region through higher densities and rail public transport connections
- reduction of car parking standards in existing housing neighbourhoods and in new developments, especially near railway and metro stations as well as light rail tram stops
- taking sufficient account of the needs of public space for walking in the city and making it easier and safer to get around
- promote buildings to have city functions at street level.



2. The City Planning department will anticipate the changes in climate conditions in order to take account of these changes in spatial planning for the future benefit of a resilient city

Reason

Spatial planning decisions must take notice of urban resilience factors in decision-making, especially analysis and feedback of extreme conditions, such as cloudbursts, storms and heat waves, together with rising sea level data.

Action

- Effective control in built-up areas of urban run-off stormwater by natural means or structural management around apartment blocks, streets and parks
- Limiting ground cover by impermeable materials in order to prevent soil degradation; e.g. creation of penetrable surfaces for parking spaces
- Mitigation of run-off waters through green infrastructure techniques such as green roofs and yard decks
- Street and courtyard trees will help reduce the mean temperature through shading
- Sheltered microclimate design
- The use of Helsinki's green factors enables each building block to have its own green efficiency measurement
- Recreational areas and small-scale streams, brooks and ponds will act as a buffer against flooding
- Green measures encourage better flexibility and adaptability of urban space
- Active monitoring of research areas is required and if necessary, changes in the principles of spatial planning.

3. City Planning department to create the necessary conditions for a carbon neutral city structure to be achieved

Reason

Supporting the shift towards renewable energy through the contribution of spatial planning in development and regeneration areas by aiming to improve the energy effi-

ciency of new and existing building stock by guiding developers towards carbon neutral construction that takes account of all phases throughout the whole building lifecycle

Action:

- Plan for more areas to be developed entirely in wood products and wood-frame buildings
- Reducing pollution through environmental principles and clear guidelines for construction practice
- Significant conservation in reducing carbon emissions through the retention of carbon sinks
- General agreements for all detailed plans showing how energy efficiency will be achieved
- Requirement for local renewable energy to be used in the planning of new developments and in the building construction process
- To have sufficient space and scale reserved at the detailed design stage to accommodate new areas for the production of renewable energy, such as bio-fuel power plants, solar power plants and industrial scale wind-parks
- Retrofit process to be taken into account within regeneration areas and for new developments, buildings should aim to be carbon neutral.

4. City Planning to develop innovative solutions for city growth to ensure a healthy city

Reason

Spatial planning will be active in a variety of research and development programmes and new directions will be achieved by finding more efficient means and solutions to today's problems.

Action

- New ways to minimise noise and airborne pollution by experimental building solutions
- City-regional cooperation will be required to introduce congestion charges in order to reduce high traffic flows in the central area
- Car-sharing facilities to be expanded
- Intelligent traffic solutions
- Steady reduction in the number of car parking spaces in the city centre to encourage a decrease in car usage
- Using beneficial real time traffic information
- Research and Development of new ideas.

Temporary park in Töölönlahti Bay is surrounded by residential buildings and offices.





Two thirds of the land area of Kruunuvuoren ranta will be left undeveloped. The compactly built residential areas will be made with respect for the environment and the history of the location.

5. City Planning to plan and strengthen the network of green areas, urban nature and recreational areas that contribute to Helsinki's green corridors in the finger plan city structure and provide a comprehensive green infrastructure that includes nature areas, parks, courtyards and gardens, green roofs and green quarters and stormwater management systems.

Reason

The Natural environment regenerates itself and is able to adapt to changing conditions. The city's resilience to climate change can be improved by planning an urban structure with a strong presence of areas covered by vegetation and urban aquatic ecosystems. This approach also enables improving ecosystems and creating a more versatile urban environment. The planning process will be based upon a holistic concept of functionally integrated natural processes in residential and green areas.

Action

- Green networks will require additional bridges and underpasses in order to protect their connections between living and green areas
- the creation of more multi-functional and diverse green areas through spatial planning implementation and in the future, planning of new development areas
- the development of the urban nature networks within the city structure, such as the green structure finger plan, drainage systems, forests and meadows
- preservation of mature forests, wetlands and small ponds
- restoration of habitats and the introduction of artificial biotopes
- conservation of naturally permeable surfaces
- requirement of green roofs and green walls or similar structures
- the use of efficient measuring to evaluate the green factor/ green area ratio in the built environment.

References

[City of Helsinki – Environmental policy and reporting](#)

[Climate-Proof City – The Planner's Workbook](#)

[Environment Centre, City of Helsinki](#)

[Helsinki Climate – Stadin ilmasto](#)

[Helsinki Region Environmental Services Authority HSY](#)

[Ministry of the Environment](#)

You may find a list of all the references in the Finnish version of
[Environmental Programme of the Helsinki City Planning Department](#).

Information of the publication

**Helsinki City Planning Department's
Environmental-Climate Change Programme 2015-2017**

Helsinki suunnittelee 2015: 4

Publisher

Helsinki City Planning Department

Text / Contributors

Douglas Gordon (translation), Jouni Heinänen, Leila Koivulehto, Jari Rantsi, Alpo Tani, Suvi Tyynilä

Photos

Anu Hämäläinen p. 9

Helsingin Asumisoikeus Oy, Sara Huhtinen p. 4

Roni Rekomaa, cover, p. 6-8

ISSN 0787-9024



**City of Helsinki
City Planning Department**

P.O. box 2100
00099 City of Helsinki
Telephone
+358 9 310 1673
www.hel.fi/ksv