



CASCADE

Cities exchanging on
local energy leadership



TAMPERE: TRANSFORMING INTO A SMART ECO-CITY

SHORT DESCRIPTION

Tampere aims to become one of the world's leading climate-conscious cities. It has set ambitious targets to cut its CO₂ emissions to 40% below 1990 levels by 2025, and to become CO₂-neutral by 2050.

Eco-efficient city planning and construction are at the heart of this vision. Tampere's building sector is the city's greatest source of greenhouse gases (GHGs), and therefore the city aims to move towards a more compact, green and low-carbon urban growth model. To avoid urban sprawl the city tries to grow inside the limits of its current community, around local centres and close to the main public transport corridors. In this way it can create neighbourhoods that are sufficiently dense to host energy- and cost-efficient infrastructure, such as district heating grids, decentralised renewable energy production plants, and public transport networks. This model also promotes walking and cycling and makes waste management and the provision of other public services easier and more energy- and cost-efficient.

Energy efficiency has been elevated to one of the most important objectives of Tampere's local master plans, and its local detailed plans. This requires common operating practices to define energy efficiency, to set targets, and to find alternatives. For this reason, the city of Tampere has participated in developing two eco-efficiency tools for city planning (the Ecocity evaluator and the Keko-tool). Planning also has a fundamental impact on energy density, which is a central consideration when planning an area's energy system. New operational practices have therefore been developed, which also assess the links between zoning and energy systems.

Financial subsidies are also being used to encourage private constructors to commit to energy efficiency. A 50% reduction in municipal land rent for 5 years is offered to buildings that are 30% more energy-efficient than national requirements. A maximum of an 85% reduction in the zoning fee and in municipal land rent is offered to complementary construction projects if the project includes features such as significant improvements in energy efficiency, or in construction using wood.

FINANCING

The city's departments are working on energy-efficient planning and construction within their own budgets. Additional funding is obtained through Tekes - the Finnish Funding Agency for Innovation, Sitra – the Finnish Innovation Fund, European programmes and other partnerships. The Eco-efficient Tampere 2020 project (ECO2) is an extra source of funding for implementing energy and climate projects.

RESULTS

Tampere is gradually transforming into a smart, carbon-free eco-city:

- CO₂-emissions were reduced by 18% between 2010 and 2012.
- The share of renewable energy in the city increased from 6% to 21% between 2009 and 2013.
- Finland's currently most energy-efficient residential area has been constructed in the Vuores area.
- Finland's first passive energy day care centre was built in Luhtaankatu in 2012.
- The City of Tampere established the Energy Consultancy Centre for Construction and Housing (RANE) for the municipality's residents in 2011.
- Tampere was nominated Finnish Cycling City of the Year in 2013.
- The share of public transport increased to 17% and the share of walking and cycling to 34% in 2013.

LESSONS LEARNT

- The financial subsidy (the reduction in land rent) has been working well, even though the costs for the city are relatively low. Two-thirds of the constructors in the Vuores area (where the subsidy was first piloted) are aiming for energy-efficient buildings in order to obtain the land rent reduction. Because of these good results, Tampere has decided to apply the subsidy across the entire city.
- There should be a long-term energy and climate strategy in place, as well as short-term plans and targets.
- Resources should be concentrated in one unit rather than being spread around. This is something where Tampere has room for improvement.
- A cross-sectoral project-based approach (ECO2) works well in initiating cooperation between units, and in introducing new ideas and practices. However, the challenge with this approach is to secure long-term commitment to eco-efficiency.

KEY SUCCESS FACTORS

- Commitment of high-level politicians and city managers to the smart eco-city vision.
- Link to the overall Tampere City strategy for 2025.
- Active communication and collaboration between the different units of the city administration, local groups and stakeholders.
- Clear focus and concrete objectives and targets.

THE CASCADE EXPERIENCE

Experts, decision-makers and local stakeholders from Birmingham, Eindhoven, Mannheim, Milan and Warsaw visited Tampere on 18-20 June 2012 to 'peer-review' its energy-efficient construction policy.

The peer reviewers interviewed more than 20 people and visited two of the city's most innovative eco-efficient projects. This allowed them to gain a clear insight into Tampere's work, and to come up with recommendations for improvements.

The CASCADE peer review helped Tampere to further improve its construction policy and contributed to setting more ambitious CO₂ emissions targets for 2025 (-40% CO₂ by 2025 vs. -20% CO₂ by 2020). The peer review was also beneficial for the reviewers. By reviewing Tampere's work, they obtained useful ideas to improve their own planning and construction policies at home.

MORE INFO

First 3 Years of ECO2 project (In English): <http://bit.ly/MEuJ3H>

The environmental policy of the City of Tampere: <http://bit.ly/1ijBXmm>

The city strategy : <http://bit.ly/1olbDzv>

Vuores-project: <http://bit.ly/Rs1diZ>



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