Carbon Neutral Tampere 2030 Roadmap Combines Many Actors for Action

Abstract

The future belongs to cities. And to uphold the Paris Agreement on climate change, the role of cities is becoming increasingly important both in Finland and internationally. Urban growth must be sustainable, which requires action in several areas. Climate action is an opportunity to create well-being and security for the citizen, but also new and sustainable business. In Tampere, we believe that the key to success lies in collaborative action and transparency. Together we can reduce 80 percent of our climate emissions by 2030 and become carbon neutral.

Key points

The Carbon Neutral Tampere 2030 Roadmap works as a tool to describe the measures to achieve carbon neutrality by 2030.

The STARDUST project supports the city's objectives of the carbon neutrality and digitalization.

The project has been active in developing IoT platform and smart lighting, autonomous traffic and citizen engagement, for example.

Tampere on a path towards carbon neutrality

The Carbon Neutral Tampere 2030 Roadmap was prepared in cooperation with the city's service areas and various departments during 2019 and the spring of 2020. The purpose of the roadmap is to describe the city's measures to achieve carbon neutrality by 2030. The implementation of the measures and objectives of the roadmap can be monitored in the Tampere climate watch (in Finnish).

Tampere has established various programmes to involve businesses, communities, universities, and citizens. Such programmes include for example a climate hero campaign, which encourages citizens to take and share actions to mitigate climate change, and a Climate Partnership for companies and organisations in the Tampere region.

STARDUST actions supporting city strategies

The city works with various authorities and other key players to engage in close, effective, and knowledge-based collaboration. Through the joint efforts, the city wishes to extend its goal to build a more sustainable future not only for its citizens but also for its stakeholders.

The collaboration includes several projects such as EU Horizon 2020 STARDUST which promotes energy efficiency and smart mobility actions. The objectives of the STARDUST project have been formulated in line with the city strategy and thus they support the city's objectives of the carbon neutrality and digitalization, among others. More specifically, they include the IoT platform and lighting controlling as well.

Tampere testbed

Tampere continues to open up its activities, development projects, and challenges to businesses and communities. Tampere has implemented ~200 co-development projects to promote digitalization and strengthen the city's role as a testbed.

The city has strong expertise in the field of automation traffic. Tampere Testbed Hervanta offers companies, equipment and sensor manufacturers, automotive operators and researchers a central location for testing and developing automated mobility solutions.

STARDUST has been implementing the digital twin to enable autonomous transport operators better understand the test area. It has been enhanced with dynamic data sources and open city data.
Hervanta Digital Twin

IoT Tampere

Digital technologies help improve residents' lives and well-being, create supportive business environments and ensure better municipal services. The Smart City leverages modern digital technologies such as the Internet of Things (IoT). The IoT platform refers to systems based on the automatic transmission of data by technical devices and the remote monitoring and control of devices via the Internet.

To monitor the urban environment sensing, several sensors, controls, and data sources are added to IoT platform. The energy consumption as well as production

data of the STARDUST pilot Ilokkaanpuisto will be also monitored and analysed using Tampere's IoT platform. As a resident of Ilokkaanpuisto, you own part of the solar power plant, which is located in the fields of Teisko, 30 kilometers from the residential area itself.

Tampere.Finland

The Tampere.Finland application has been developed to help locals and visitors get information about services in the city. The app includes a guided tour, local bus routes and timetables, information about parking availability, an event calendar and a form to apply for a discount for the Tampere Pass.

Event, route, transit, and parking information are automatically updated through open data interfaces provided by the city. The app can be downloaded free of charge from Google Play Store and Apple App Store.

CO2 calculator

The development of Tampere.Finland app has been extended by different city organisations. And STARDUST has also developed new features. A carbon footprint calculator has been published in the Tampere.Finland city app. The calculator encourages sustainable mobility by providing information to users. The counter shows, for example, the most common mode of transport and its monthly carbon footprint.

It is all about people; new strategies are building on the Smart Tampere programme and various projects. Though the programme period ended in 2021, smart city development in Tampere continues. The aim of the new Carbon Neutral Actions programme is to promote the fair transition of Tampere residents and companies towards a carbon-neutral and climate-sustainable society. The programme focuses on changing residents' mobility and consumption habits, as well as on business cooperation and the promotion of a circular economy.

References

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