



The Digital Strategy and Digital Twins in Turku

Rami Savila

Chief Strategy Officer at the City of Turku

The Digital Strategy

- Digital services for citizens is must.

"The services are available digitally, can be tailored to individual needs and made available proactively. "



Digital City

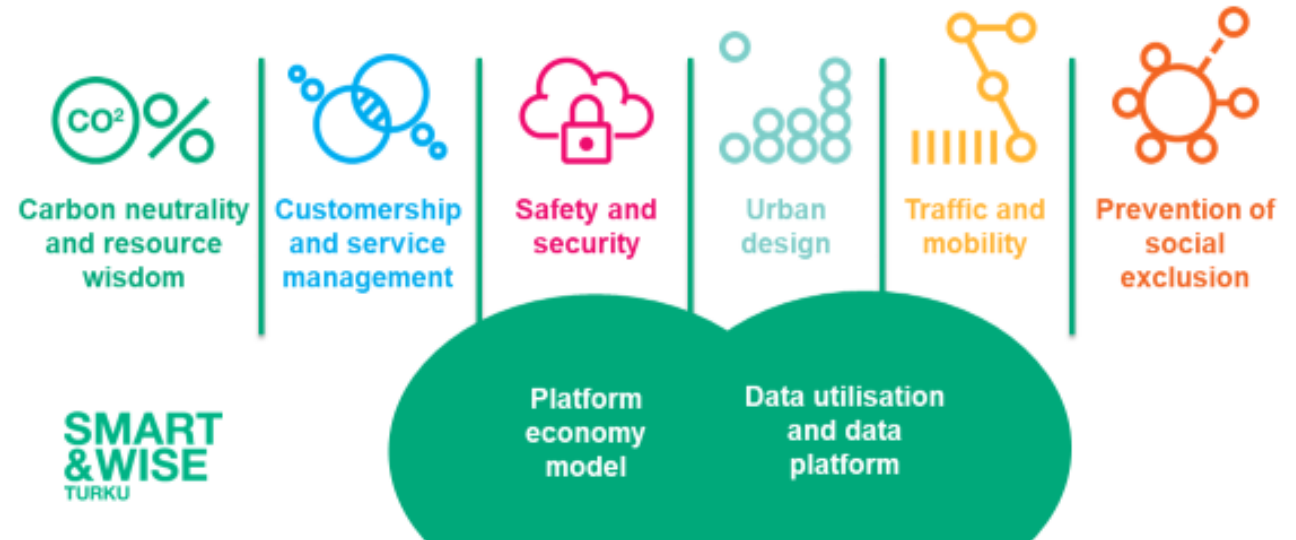
- The development of digital city is guided with several long term target documents
 - information management strategy
 - data and digi strategy



Smart City

- Smart City concept launched 2018 in Turku city's spearhead program, Smart and Wise Turku

6 focal points



We build castles in the clouds



- Proactive urban planning
- Digital twin city
- Smart construction and intelligent buildings

**SMART
& WISE**
TURKU

A photograph of a man with a full brown beard and mustache, wearing a red and blue plaid shirt and large white headphones. He is looking down at a device he is holding in his hands. The image is partially obscured by a large teal circle on the right side.

**Urban
design**

Urban Design

- Managing city data model
 - Creating the model and concept and processes for managing the data model
- Twin city model
- Create a visual 3D-model of buildings
 - Hidden infra; underground infra; only for internal use, data security important
 - Smart Twin containing more than just building frames eg. metadata about the buildings.



Several Twin Cities

- 3D-models contains partly the processes of city and behavior of citizens.
- Scenario tools for public safety, noise management, air quality, surveillance camera blind spots, safe mobility & traffic, lightning sun-shadow, big events, living conditions etc.



Kuva: Sami Maanpää

Several Twin Cities

- Experimentations in different city areas
 - Harbour area and Linnanniemi (living, mobility, museums)
 - Kupittaa (mobility, locations of services)
 - All city areas; air quality measures, traffic, green areas etc.



An aerial, high-angle view of a dense urban environment rendered in a 3D digital format. The scene is filled with a variety of building types, including multi-story apartment blocks, commercial buildings with flat roofs, and structures with distinctive glass pyramidal roofs. The color palette is somewhat muted, with many buildings in shades of grey, blue, and brown, though some have more vibrant facades. The perspective shows the intricate layout of the city's streets and the way buildings are packed together. A blue rectangular box with white text is overlaid on the left side of the image.

3D model: city center

Picture: Katariina Hilke

An aerial 3D architectural rendering of a city scene. In the foreground, a large, classical-style building with a red-tiled roof and many windows is visible. To its right is a modern, white building with a large glass facade. A river flows through the middle of the scene, with green trees and bushes along its banks. In the background, there are several other buildings, including a tall, modern one and a large, multi-story one. The sky is blue with some clouds.

3D model Library and Aura river

Future: Kupittaa

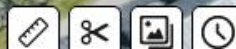


Picture: Katariina Hilke

Future: Kupittaa



Picture: Katariina Hilke



Issues

- Data interoperability and usability;
 - data can be used for simulations and analysis, it can be combined and it is easy to use.
- Digital data security
 - how to ensure?
 - different levels of data visibility: public data, critical non-public / secret data only for admin purposes



Future platform of services

- Twin City is not anymore future, it's part of our life and we go deeper there.
- Challenge what we mean with digital twin city. Several meanings for digital twin.
- Heavily developing currently.





Thank You