

TAMPERE - Data Driven City for Citizens

ITS Factory
10.10.2022

Maiju Viiki
Customer Account Manager
Maiju.viiki@tampere

#smart tampere





TAMPERE

a city for people, driven by data & AI

Tampere has been an **active smart city developer** since the late '90s.

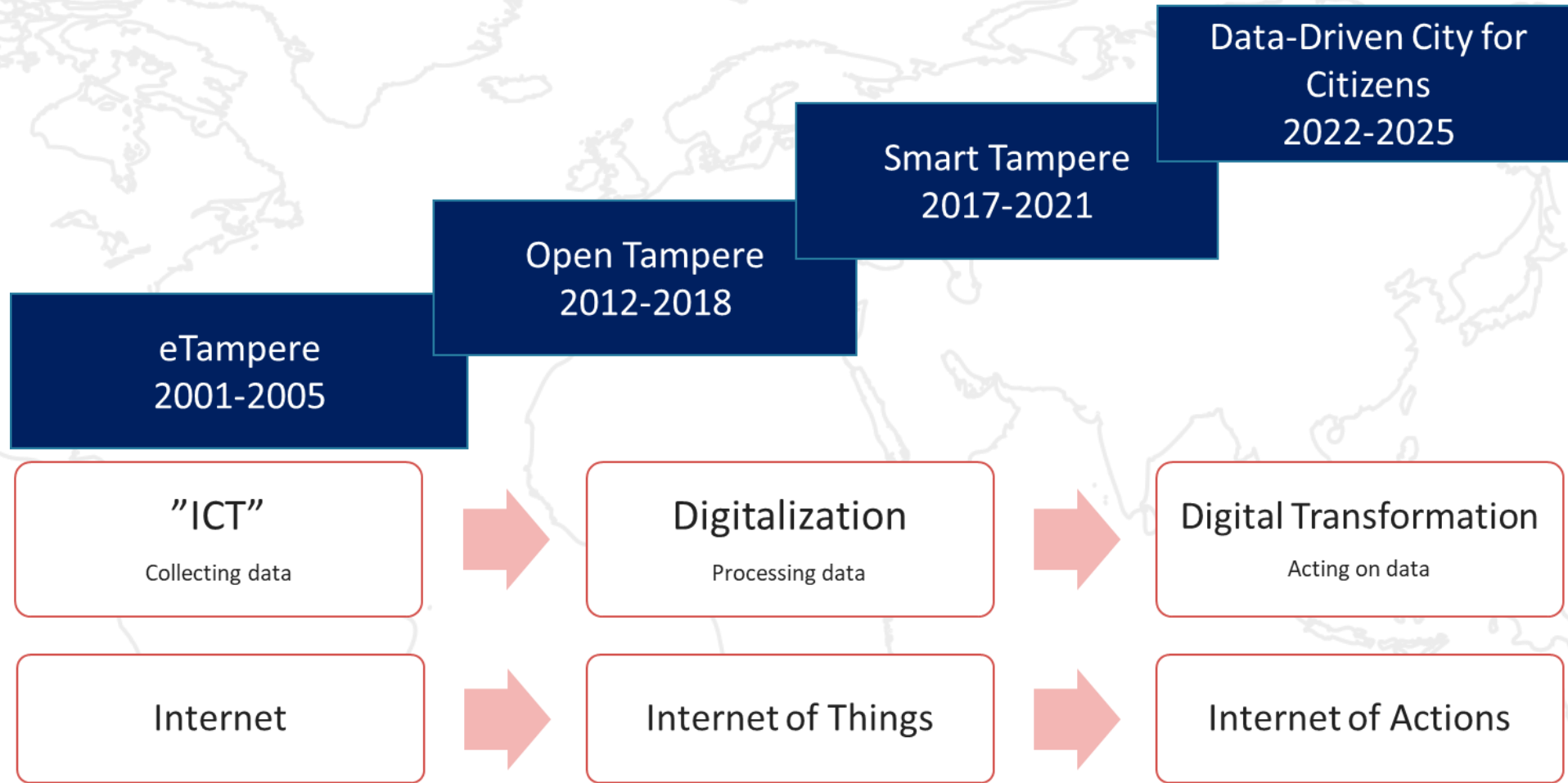
Throughout these decades, our whole city has served as **a thriving living lab** and testbed for smart city innovation. This has supported the adoption of new solutions in close collaboration with local businesses, R&D partners, and end-users who are actively engaged in the process as co-creators.

Our systematic and strategic approach to smart city development has increased our understanding of the possibilities of new technologies. It has helped build up **valuable co-operation networks** and contributed to Tampere's reputation as a desired development partner.

We have understood that the **city must play a key role in digital transformation**. We must ensure that it serves residents and businesses alike, advances equality, and promotes ecological and social sustainability in the digital era.

Today, we **embrace the next generation of smart city development activities**. We harness data and AI as tools that help us improve the way we provide our urban services – tools that help us understand our residents' life events and better target our services to them when they are needed – tools to become a more human-centered society.

The evolution of smart city development in Tampere



SMART as a strategy

Pioneering development programmes as a manifestation of our smart and strategic approach.



Creating new solutions for a smart city together with residents, businesses and research institutes.

Promoting digitalization and digital transformation to benefit people and businesses

- produces services for smooth daily life
- increases wellbeing, sense of safety and security
- strengthens Tampere as an internationally attractive cluster of expertise
- helps us to become a carbon-neutral city by 2030

Leading the Data-Driven Transformation as a forerunner in smart city development.

Focus areas

EQUAL INDIVIDUALS

Tampere is the best place to grow, develop and age. In Tampere, everyone can be themselves and make their dreams come true.



ACTIVE COMMUNITIES

Tampere shows the direction for the community of the future. Tampere's diverse communities and companies feed well-being, creativity and innovation. Together, we can make a brighter tomorrow.



CARBON-NEUTRAL ACTION

Tampere is internationally known for its impressive work on climate and biodiversity. Making sustainable choices is easy here – our appeal comes from the smoothness of everyday life.



A PIONEER OF THE FUTURE

Tampere continues its success story; we provide the best conditions for making the solutions of the future. Tampere has a strong position as an international city of science and know-how.

From city strategy to actions

We improve the flow of everyday life by providing high-quality and accessible services, such as increasing the sense of safety and security of the residents and visitors.

We provide support for solutions and experiments that promote responsible choices for residents, businesses and communities. We call on the entire urban community to build a sustainable future.

We are a reliable partner, collaborator and co-creator. Our investments are platforms for creating new - facilitating public-private partnerships and collaboration with over 400 organizations.

We identify strategically significant national and international networks and operate in them in a targeted manner.

Being Smart requires a holistic approach that covers all the Focus areas of Tampere Strategy 2030.

The whole city as a testbed for sustainable innovation

DISTRICTS AS TESTBEDS

HIEDANRANTA

New district being built based on data to encourage sustainable actions. Pilot platform for state-of-the art energy, building technology and infrastructure innovation.

ISOKUUSI

Wood construction based area at Vuores city district.

HÄRMÄLÄNRANTA

Energy efficiency concept based on distributed energy sources, solar energy, remotely managed energy consumption, smart street lighting and electric car sharing system.

ILOKKAANPUISTO

Resident-owned photovoltaic power station located in a rural part of Tampere.

PHYSICAL & DIGITAL TESTBEDS

IOT Platform

City IoT platform supporting testing and creating pioneering infra and mobility solutions.

SMART Tram

Physical and digital testbed for next gen. rail-traffic related innovation.

LoRaWAN

Network for production of smart services with battery-operated and cost-efficient sensors.

Autonomous Driving

Test area for automotive cluster and level 4 autonomous driving

5G Testbed ecosystem

Towards 5G Hervanta testbed

Nokia Arena superfast mmWave 5G network

Signify 5G mesh downtown network

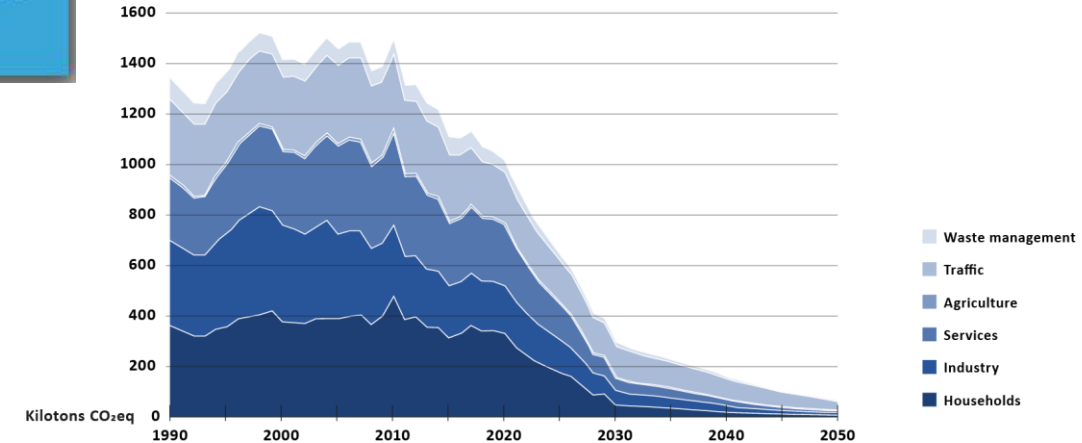


Tampere has invested in building a significant ecosystem of both physical and digital testbeds.

We view each new investment in our social infrastructure as a platform for co-creation, and an opportunity to develop new smart city solutions.



Promoting sustainability – Carbon Neutral Tampere 2030 Roadmap



City environments are innovation platforms where significant challenges are turned into solutions for local needs and global markets.

Sharing best practices and lessons learned with other forerunner cities

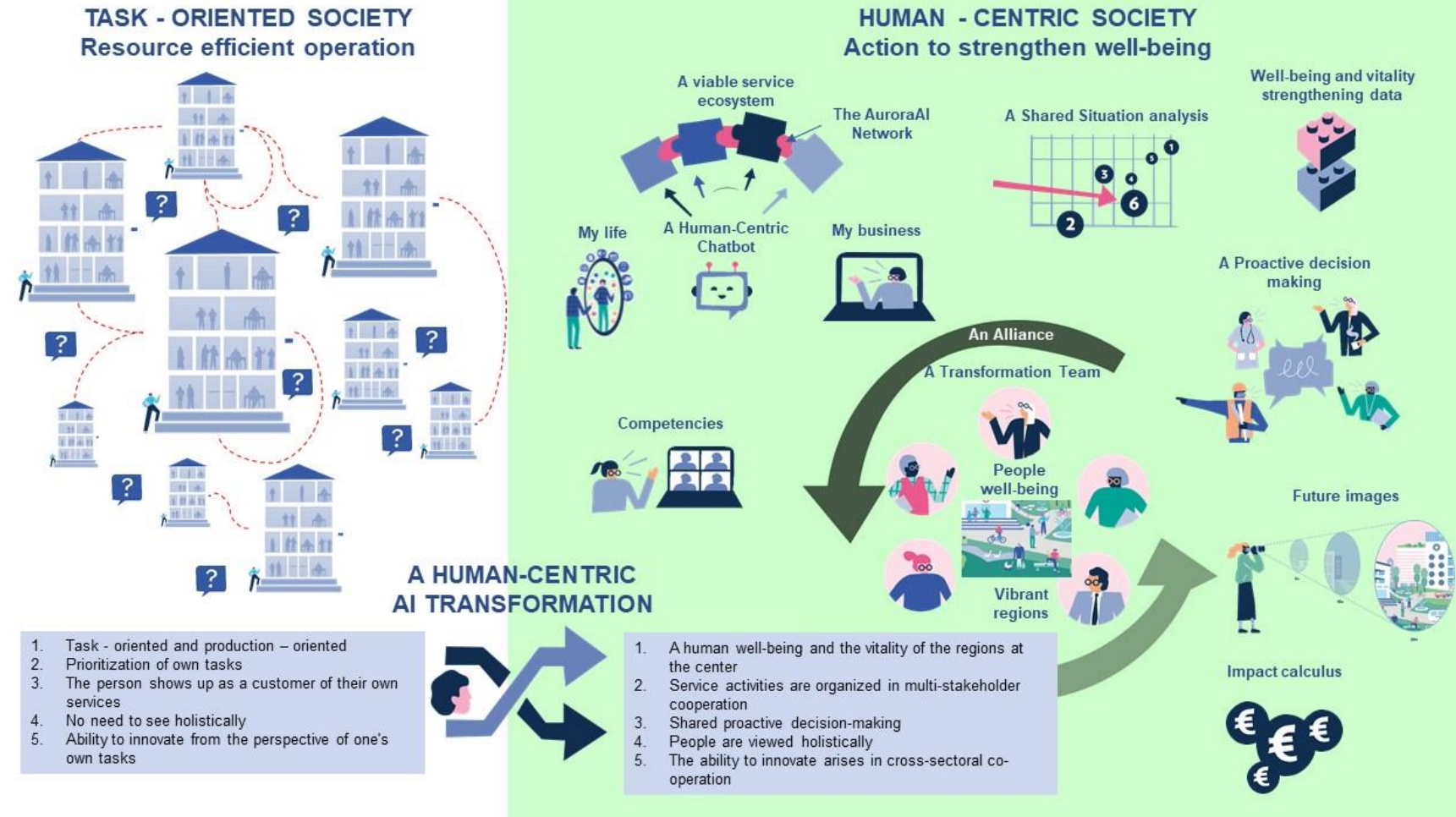
Creating mutual strategies and pilots

- Nordic Smart City Road Map
- Using data and AI to understand the welfare differences and segregation of families in six Finnish cities

Key networks:

- AuroraAI (Finland's national AI programme)
- Nordic Smart City Network
- European Forum for Urban Security
- Making Cities Resilient (UN)
- The World Economic Forum Global Smart City Alliance
- Global Human AI Research network (gHAIR)

Building a human-centered society locally and globally



IMPACT.

We are not simply deploying new technology ... We aim to work smarter, become more human-centric, and apply sophisticated ways to measure our outcomes.

Objective

Beneficiaries

Benefits

Examples

The ability for the city and its organizations to innovate for the benefit of people and businesses growth

FOR THE CITY

- useful information on new solutions for optimizing operations, developing city services and finding cost savings
- new tools for fact-based decision making
- new channels to interact with the community and get insights

1. Advanced segmentation of businesses, students and families
2. AI-based city competence profile

The vitality of the region is strengthened, and the emergence of new business is fostered through data and sustainable digital change

FOR COMPANIES

- innovation from developing and testing new solutions
- growth from obtaining new references
- support in promoting and scaling their solutions internationally

1. City IoT Platform
2. Employment services automation
3. 200+ piloted new innovations
4. Open data platform and policies

Well-being is increased by strengthening the smoothness, anticipation and timeliness of everyday activities

FOR RESIDENTS

- improvement in wellbeing and life satisfaction
- the possibility to be active participants, collaborators and co-creators of smart city activities
- better, timely and more cost-efficient services

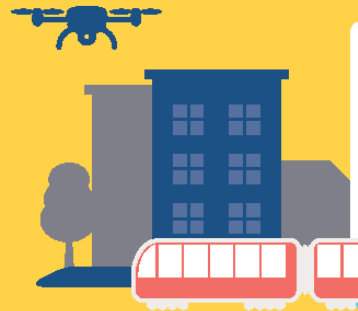
1. New services for adolescent students living in Tampere alone
2. First of its kind Holistic Wellbeing Index in the Nordics

COMMUNITY WELLBEING



Sustainable City

Increasing the ecological sustainability of mobility (including transport) and consumption through technological solutions



A City of Business Growth

Increase the chances of business success with smooth and customized services



International and Inclusive City

Virtual multi-producer model, cross-organizational services based on people and needs, jointly implemented Chatbot service



A City of Growth and Learning

Increasing educational equality and preventing regional segregation



Safe Pedestrian City

Increasing citizens' sense of security and urban resilience in the urban environment



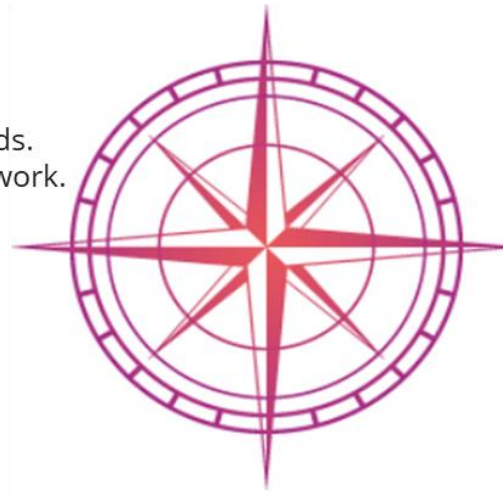
TAMPERE DIGITAL COMPASS

The tool
to navigate
into the future.

PUBLIC SERVICES

We build our services to meet people's needs.
We utilize data and artificial intelligence at work.

We use proactive analytics to support
planning and management.



SKILLS

We develop solutions together with people, research
communities, companies and other municipalities
locally and internationally

We support a proactive approach to identifying expertise
needs and our organization's ability to implement solutions.

INFRASTRUCTURE

We have a system and expertise in utilizing
data and artificial intelligence throughout the
city

We utilize new telecommunication solutions and
new technology (e.g. 5G, edge computing) to
support the data economy

We enable the development of the latest
infrastructure technology and related
experiments in the city

BUSINESS

We develop new business with companies
based on data and information brought by
artificial intelligence

Smart and sustainable Tampere attracts
international attention

The first data as a service concepts are available
to companies

Thank You!

