People-centred Cityverse

Teppo Rantanen

Executive Director

City of Tampere, Finland

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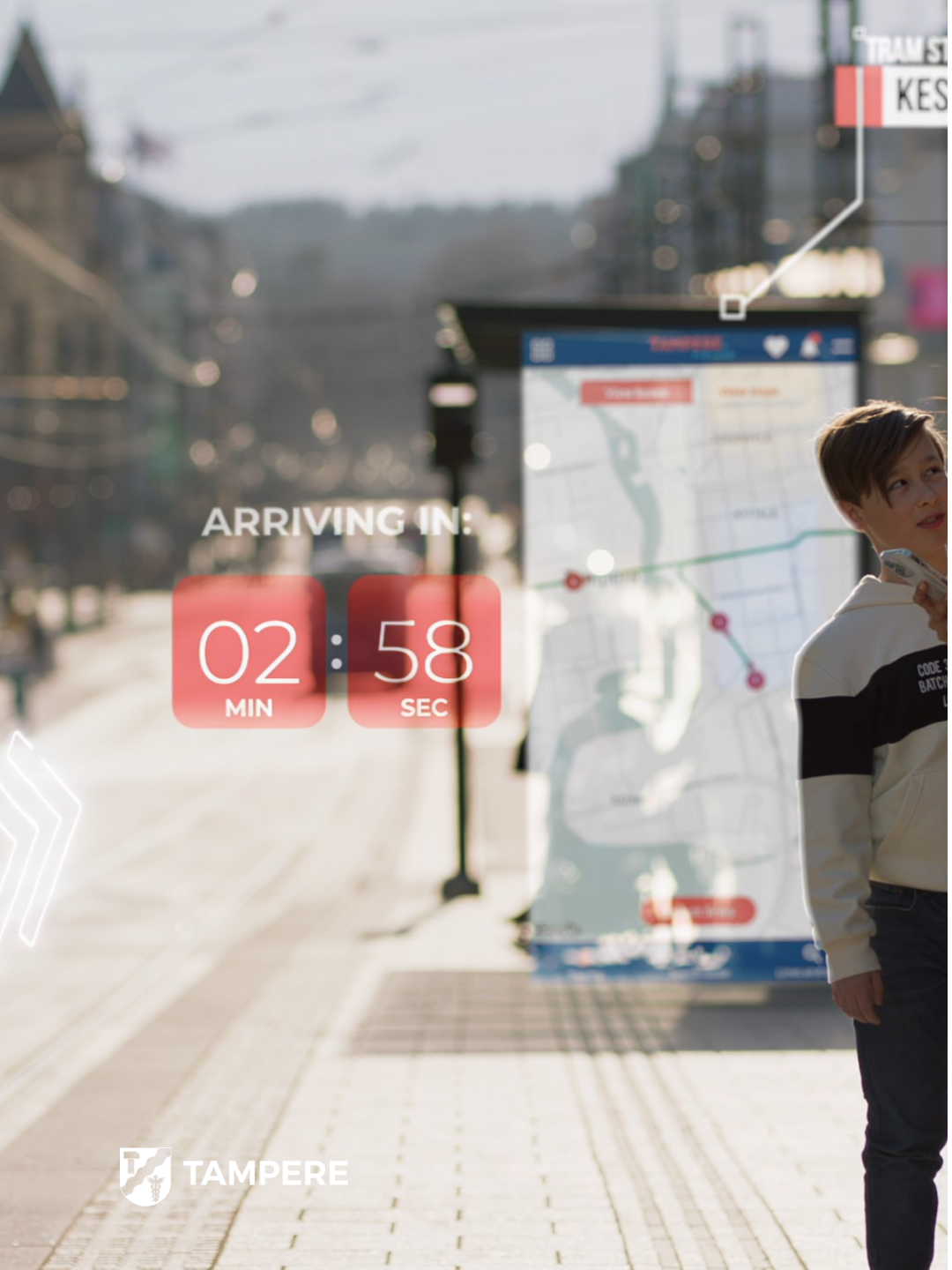

Human-centered digital transformation

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.**

Tampere, 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.

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Data-Driven City

Benefits

- Marketplace for safe data sharing
- Smarter resource allocation
- Analytics & predictive urban services
- Attractive & Sustainable City

Possibilities

- Breaking siloes & bringing different actors together
- Insights based decision making
- Improving social, urban, and ethical services based on actual needs
- Placing citizens as co-creators of urban interventions

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Implementation of Tampere Strategy

Strategy: "We base our operations on reliable and up-to-date information. We strengthen proactive leadership and decision-making.

We aspire to be the leading city in providing automated and anticipatory services to our residents.

We boldly harness the opportunities of digitalization in service development.

A City Boldly Embracing Renewal

Pioneering the Future

Development Programme Vision:
Smarter City - A City for People

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Key focus areas

- Development of New Flagship Services:

Enhancing user understanding and collaboration with target audiences.

- Active Networking and Co-creation:

Building strong partnerships and collaborations with businesses and leading international cities. Promoting the exchange of knowledge and expertise between Tampere and other regions.

- Fostering Commitment, Enthusiasm, and Collaboration:

Cultivating a culture of dedication and enthusiasm among professionals across different city services and units. Supporting the flagship projects and fostering mutual learning and growth.

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Flagships

Sustainable City

We are building a sustainable and functional urban environment by leveraging data and artificial intelligence, IoT platform solutions, and digital twins.

Safe Pedestrian City

Enhancing the walking experience of residents and visitors to move freely, inspiringly, smoothly and safely.

A City of Business Growth

Proactive and targeted business services that utilize data, artificial intelligence and automation. Services utilizing technology available to companies easily, timely and with high quality

International and Inclusive City

Harnessing diversity to contribute towards the city's growth and innovation by facilitating smooth customer centric cross-organizational collaboration, the use of smart virtual tools and effective data management ecosystems.

A City of Growth and Learning

Individual gets the services needed; professionals can use their recourses in the best way. Leadership responds to the transformation needs when shared knowledge proceed to actions.
We are looking for new ways to use data and creating a shared understanding of the phenomena in the world of children and young people.

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Flagship 1:
A City of Business Growth

In the flagship initiative, “A City of Business Growth," we aim to gain a competitive edge and deliver more precisely targeted services to local businesses by sharing and refining data.

Our objective is to revamp the business and growth services offered by the City of Tampere, enhancing the city's vitality and supporting business growth more efficiently. In practice, this will be achieved through the development and implementation of proactive and tailored business services that harness the potential of data, artificial intelligence, and automation while maintaining a human-centric approach.

Key Implementers and Outputs

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Key Implementers:

1. Growth Services
2. Business Tampere
3. Partner Companies, including Wapice, HeadAI, Capgemini, Innolink, Hion Digital, Veracell, Netum, Profinder

Key Outputs:

1. Implementation of a "Data as a Service" model, offering personalised visual business data insights to support business development, vitality testing, and intelligent service guidance (based on business ID service platform development).
2. Definition and formation of the Business Data Action Plan.
3. Development of the Tampere.Finland application as a channel for new services offered to businesses. For example, Tampere Pulse application for local business owners.
4. Taking advantage of new technologies, such as LLM models, to enhance the user interfaces and the customer experience
5. Development of new job descriptions, e.g. Business Data Coordinators, to respond to digital transformation and to strengthen interaction between internal departments in digital development
6. Definition and phased implementation of the business service data architecture and data products, including the establishment of the necessary data-platform and knowledge base (e.g. Azure and business clustering), creation of analytics and service components, and integration at the user interface level (both mobile and web).

Owner: Irene Impiö, Director of Growth Services

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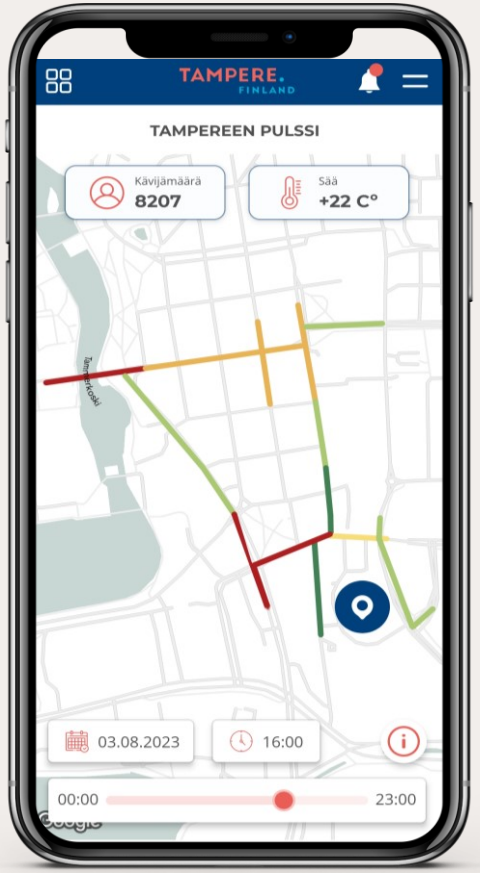

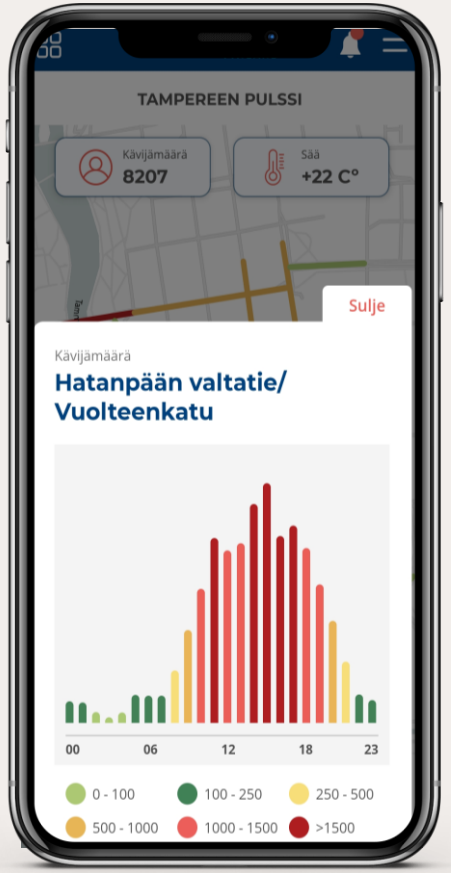

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Flagship 2: International and Inclusive City

In the "International & Inclusive City" flagship initiative, our goal is to understand the diverse experiences and service needs of international Tampere residents, creating a more international and inclusive home for all. We aim to improve integration, employment, and the attraction of international talents by enhancing experts' understanding of service demand and creating an inclusive environment. We'll leverage technology and data for better services, promote cross-sectoral collaboration, and adopt a comprehensive approach to enhance participatory integration practices.

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Key Implementers and Outputs

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Key Implementers:

1. International Competence Services
2. Information Technology
3. Partners, including Migri, Kela, Vero, DVV, Synesis OY, HeadAI, VastuuGroup, Innofactor, Council of Europe, Ministry of Education and Culture (OKM), and Ministry of Economic Affairs and Employment (TEM)

Key Outputs:

1. Development of an Integration Customer Relationship Management System.
2. Implementation of the English-language chatbot "Tam," which provides information from various service providers, not just the city.
3. Holistic competence and service needs assessment tool/data repository for international talents.
4. Reference architecture for the Integration Service Ecosystem.
5. Comprehensive Integration Index and the City's Inclusivity Index.
6. Current-state analysis and development roadmap on the inclusivity of city operations and immigrant expectations.
7. Life event-based cost-effectiveness analysis of the integration of different target groups in Tampere.

Owner: Mari Taverne, Director of International Competence Services

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Welcome to Tampere!
START CHAT
International House Chatbot 3:30 PM
So, you are moving to Tampere! Welcome!
Hey!
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Flagship 3: A City of Growth and Learning

In the flagship program of A City of Growth and Learning, we harness data and well-analyzed information to enhance services and leadership, aiming to prevent segregation from early childhood education to employment services. We are developing a human-centric, continuous operational process that relies on up-to-date information to identify phenomena, transition from phenomena to impact, and engage in proactive measures.

Our goal is to enable better decisions, rooted in analyzed information, across various levels of operations, transcending organizational boundaries. During the development program, our focus lies on comprehending data acquisition and information needs, as well as building and implementing the necessary functionalities.

Key Implementers and Outputs

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Key Implementers:

- Early Childhood Education and Preschool
- Basic Education
- Upper Secondary Education
- Employment Services
- Information Technology

Key Outputs:

- The framework for data-driven decision-making has been established and described.
- Roles in data acquisition have been defined.
- Experts have enhanced their skills and capabilities in data acquisition and leveraging digitalization.
- Flagship actors share common goals and understanding of information needs.
- Shared phenomena have been identified and their interoperability ensured.
- Essential customer data has been identified and made accessible through the data platform.

Owner: Planning Director Leena Viitasaari

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Flagship 4:
Safe Pedestrian City

Our flagship aims to enhance the sense of safety for pedestrians, provide information to service users, and better identify user needs by developing and leveraging digital twins.

Our objective is to collaboratively create new safety innovations with experts from the safety sector and various fields. These innovations can be utilized internationally in other cities as well. Some of the solutions we're developing are intended for urban planners, while others are directly for our city's residents. They all share a common goal of increasing participation and interaction through digital twins. The entire endeavor is built on a strong collaborative model, where our citizens are involved in every stage of the development process.

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Key Implementers and Outputs

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Key Implementers:

- Strategic Project Development
- Internal Collaborators: Cultural Services, Traffic Planning, Basic Education
- Partner Companies, including Sulava, Kaleidoscope, Microsoft
- Project Partners from Europe, such as Fraunhofer Institute, Cascais, Cesena
- Information Technology

Key Outputs:

- Definition of various pedestrian profiles
- Definition of walking concepts
- Digital twin experiments for four walking concepts with different service providers
- Utilization of Tampere.Finland, Tampere IoT, and SURE system suite in concept implementations
- Identification of interface requirements for digital twins

Owner: Development Manager Anniina Autero

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Flagship 5: Sustainable City

In the Flagship for Sustainable City, we are building a sustainable and functional urban environment by harnessing data, artificial intelligence, IoT platform solutions, and digital twins. The focus is on the broader utilization of the existing smart infrastructure within the urban environment and the integration of advanced analytics and AI as tools for climate action.

Our functional objectives include strengthening data-driven decision-making in the implementation of climate and environmental policies and laying the groundwork for new digitalization opportunities in urban services in the future.

Key Implementers and Outputs

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Key Implementers:

- GIS Unit
- Climate and Environmental Policy Unit
- Carbon-Neutral Actions Development Program
- ICT Department
- Partner Companies, including Solita, Wapice, Microsoft, Gofore

Key Outputs:

- Assessment of legislative and operational requirements and conditions for drone traffic in Tampere
- Urban data model for the evolving digital twin of the urban environment
- AI-powered solution to support climate and environmental data management
- Generic model for smart environmental data architecture and supply chains
- Support for Sustainable Lifestyle data work within the Carbon-Neutral Actions Development Program

Owner: Development Manager Matias Ansaharju

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IoT-TICKET Smart Mobility Insights
Today's total for all checkpoints
19 279
8 312
1 085
156 914
204
3 215
1 819
306
Light Traffic
Motorized Private Traffic
Heavy and Public Vehicles
273 Traffic light measurement points
312 Camera measurement points
Total 585
Last 7 days
Pedestrians
Bicycles
Electric scooters
Last 24 hours
Map data © OpenStreetMap contributors
DEMO-Smart Mobility Insig...
Overview
TAMPERE
DEC 3
-3°C
-3°C/-8°C
GROUND TEMPERATURE
0°C

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Kuva: Laura Vanzo / Visit Tampere

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Coming up next

- Good governance – ethical use of AI and City’s ability to reform
- Understanding the city's role in data ecosystems and building data-driven applications
- First steps towards Tampere Cityverse in collaboration with companies and European cities

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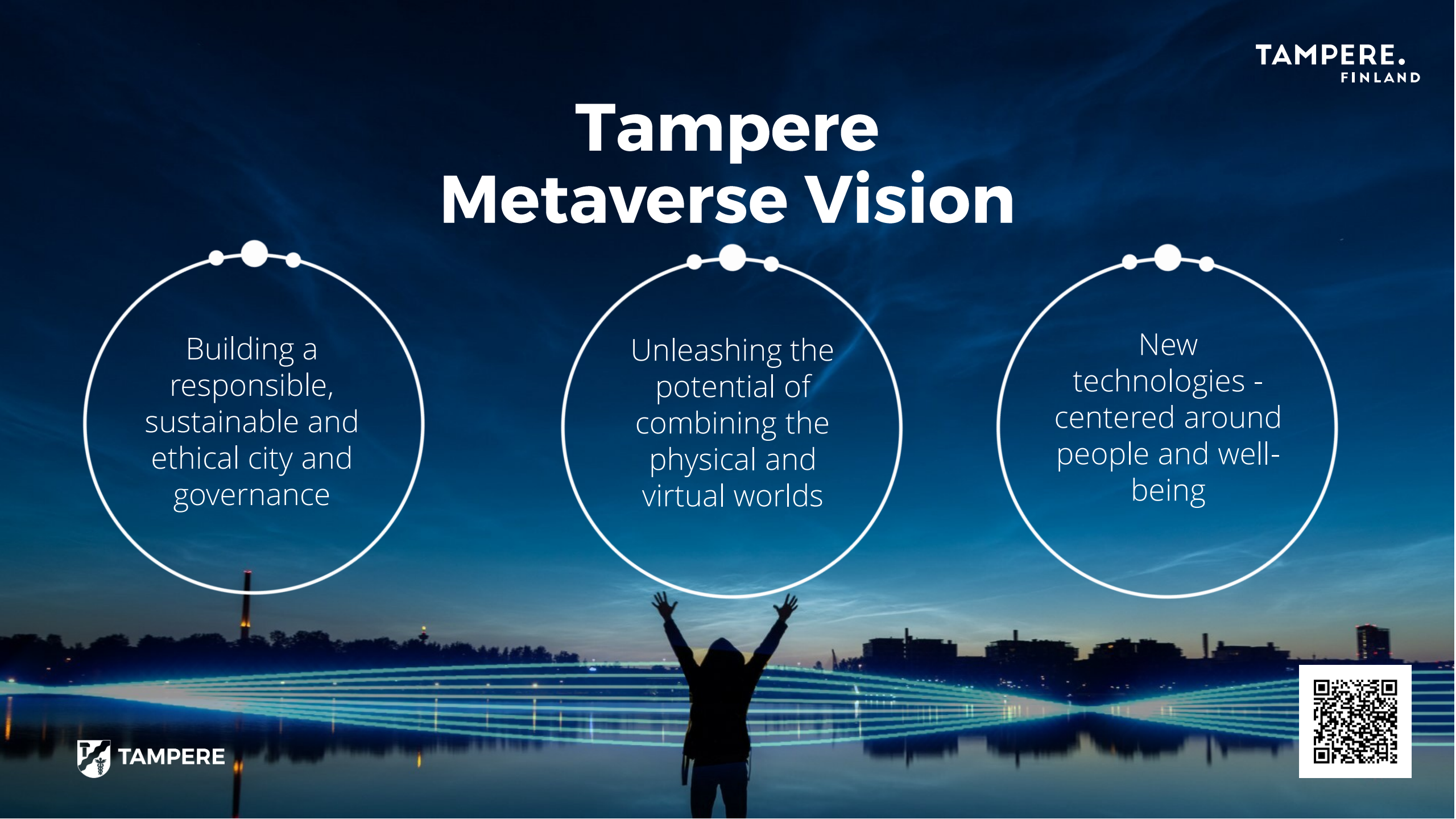
Tampere Metaverse Vision

Building a responsible, sustainable and ethical city and governance

Unleashing the potential of combining the physical and virtual worlds

New technologies - centered around people and well-being



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Thank you. Kiitos.

Pic: Visit Tampere / Laura Vanzo