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TAMPERE METAVERSE

How new technologies can help in disasters

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The most attractive City in the happiest country in the World

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.

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- Metaverse
  is the next phase of smart city development in Tampere
- A core element for **building a smart and sustainable future** for both residents and businesses alike.
- Building on the of **five flagships of transformation.**
- Learning by doing from each other and with each other locally and globally.

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Our Flagships of Transformation

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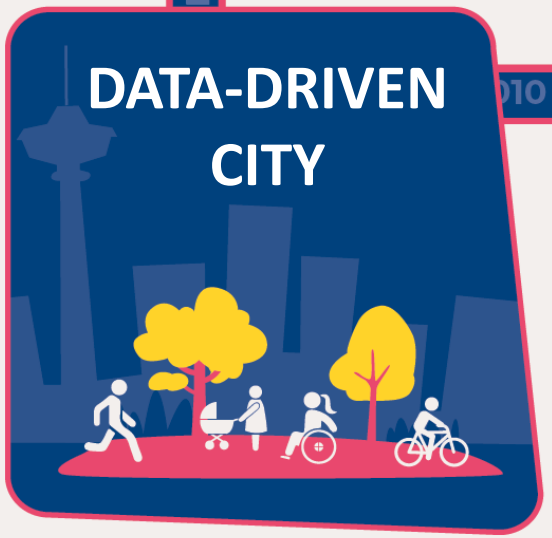
Sustainable City

Creating recipes for smart and sustainable urban development.

DATA-DRIVEN CITY



A City of Business Growth

Increasing the vitality of Tampere with proactive and targeted business services that utilize data, artificial intelligence and automation.

Safe Pedestrian City

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

International and Inclusive City

Harnessing diversity, facilitating smooth customer centric cross-organizational collaboration, the use of smart virtual tools and effective data management ecosystems.

A City of Growth and Learning

In the growth and learning paths of children and young people, knowledge-based management turns knowledge into action.

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The Metaverse
(Public, Private, Personal, Centralized, Decentralized ...)
Object Digital Twins
(Public, industrial, personal, mobile, fixed assets)
Human Digital Twins
(Different perpectives and personas)
Residents Smart Applications
Smart Business Applications
City Management Smart Applications
Smart Applications Engine
Cognitive City Brain
Cognitive Digital Thread Engine
Legal & Ethics Framework Engine
(Data protection, ethics ...)
Public Infrastructure
(Under and over ground)
Intelligent Sensing Networks
(Raw data, contextualized data and knowledge)
Common Technology Infrastructure
(Dynamically updated and augmented)
Cognitive City

Tampere Metaverse Vision 2040 Technology Map

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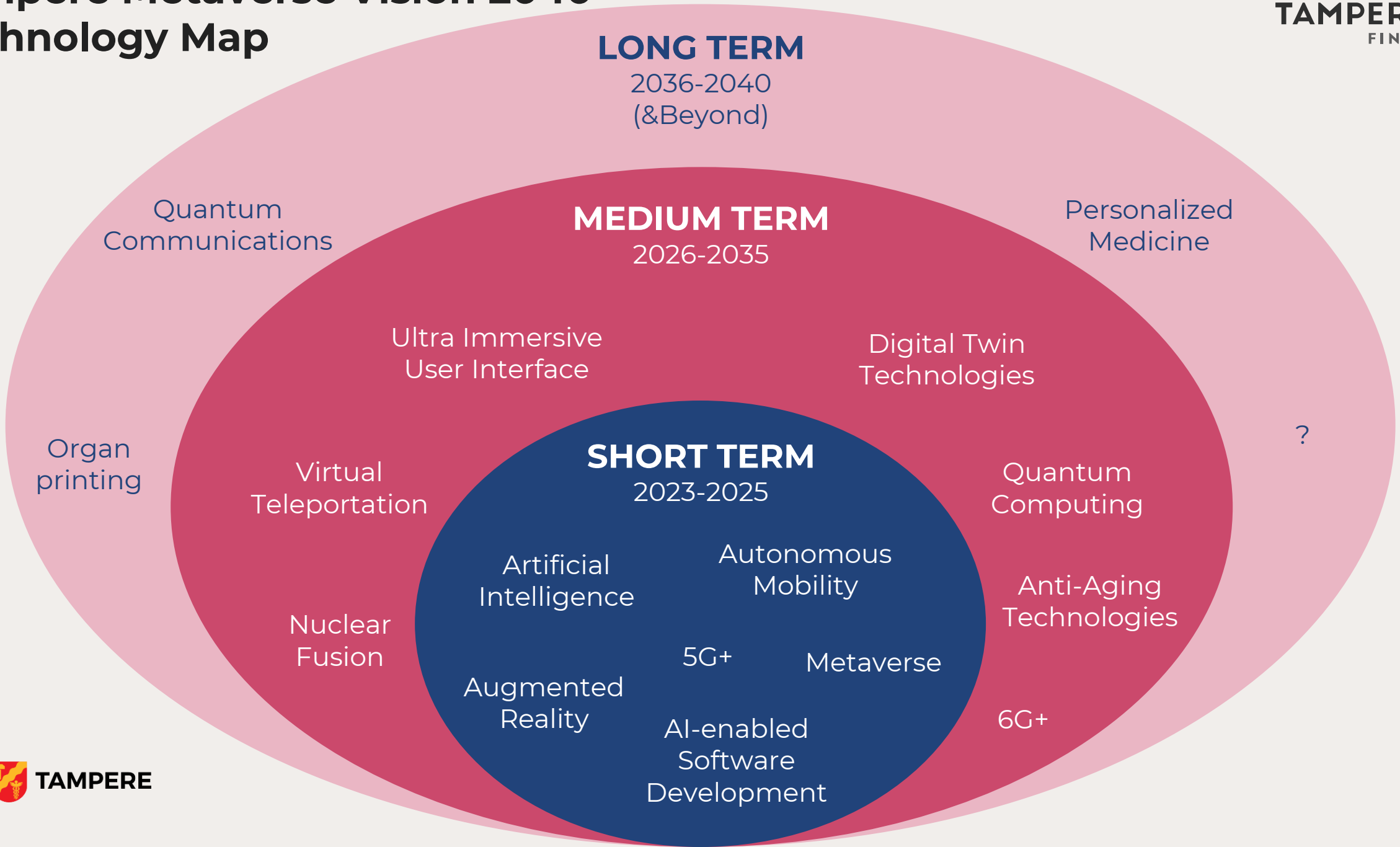

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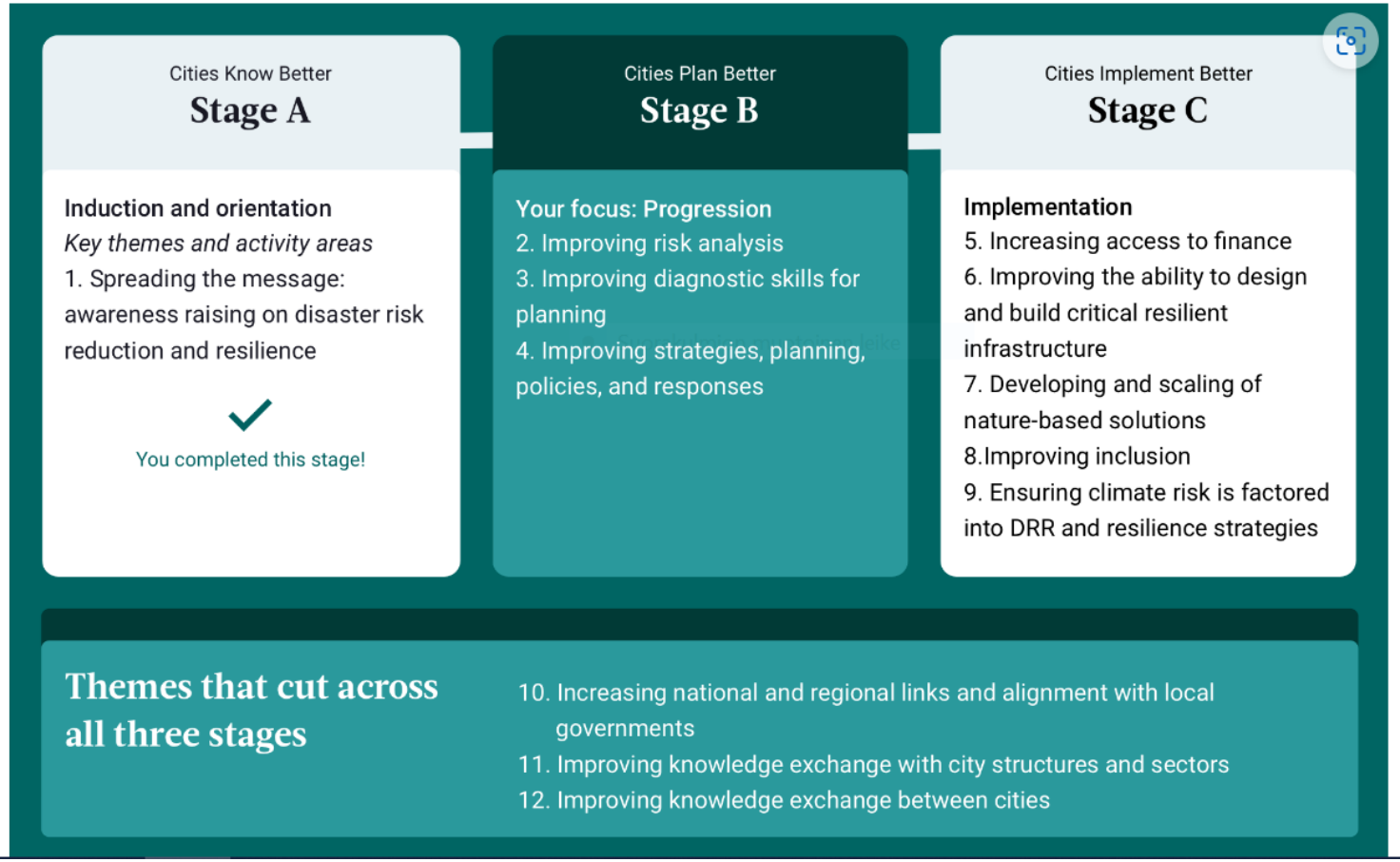
Managing recovery in cities from stage A to B in Tampere

Your next steps toward protecting your city



Recovery and resilience in Metaverse

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- Digital twins enable disaster events tracking and management of the situation
- Real time XR helps emergency teams operate in the event
- Use of drones and autonomous vehicles and devices will be based on existing models
- Using generative AI will help in developing on time responses
- Simulation models can be built for different scenarios using ubiquitous data from different sensors and in the future ontime real data also from crowdsourcing

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Thank you
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