



VTT

VTT webinar:  
**How cities can lead with  
impact: practical tools  
for future-ready cities**

12/03/2026 VTT – beyond the obvious

# Welcome to our webinar!

- **Duration of the webinar, including the Q&A:** 50 – 60 minutes
  
- **Q&A:**
  - Please submit your questions through "Ask a question" tab
  - Please note that the tab is not visible in the full screen mode
  - We will answer questions at the end of the webinar
  
- **Slides:** We will provide you webinar slides and the recording about one week after the live webinar

# Agenda

- **Welcome and opening: Leading beyond the obvious - Why cities need impact leadership now** 14:00-14:05  
Kalle Kantola, Vice President, Foresight and data economy, VTT
- **Impact leadership for future-proof cities** 14:05-14:15  
Kirsi Hyytinen, Research Team Leader, Future-proof societies, VTT
- **Case Espoo: towards systemic impact leadership** 14:15-14:35  
Piia Wollstén, Director of Digital Service Development, City of Espoo  
Anni Orttenvuori-Ganter, Lead Data and Knowledge Architect, City of Espoo
- **Integrating data for better urban decisions** 14:35-14:45  
Peter Ylén, Lead, System Dynamics, VTT
- **Live Q&A** 14:45-14:55
- **Summary** 14:55-15:00

# Why cities need impact leadership now?

Kalle Kantola, Vice President,  
Foresight and data economy, VTT

# Our future is decided in cities

Most people  
live in cities

Most  
innovations  
are created  
in cities

**80%**  
of GDP is  
created in  
cities

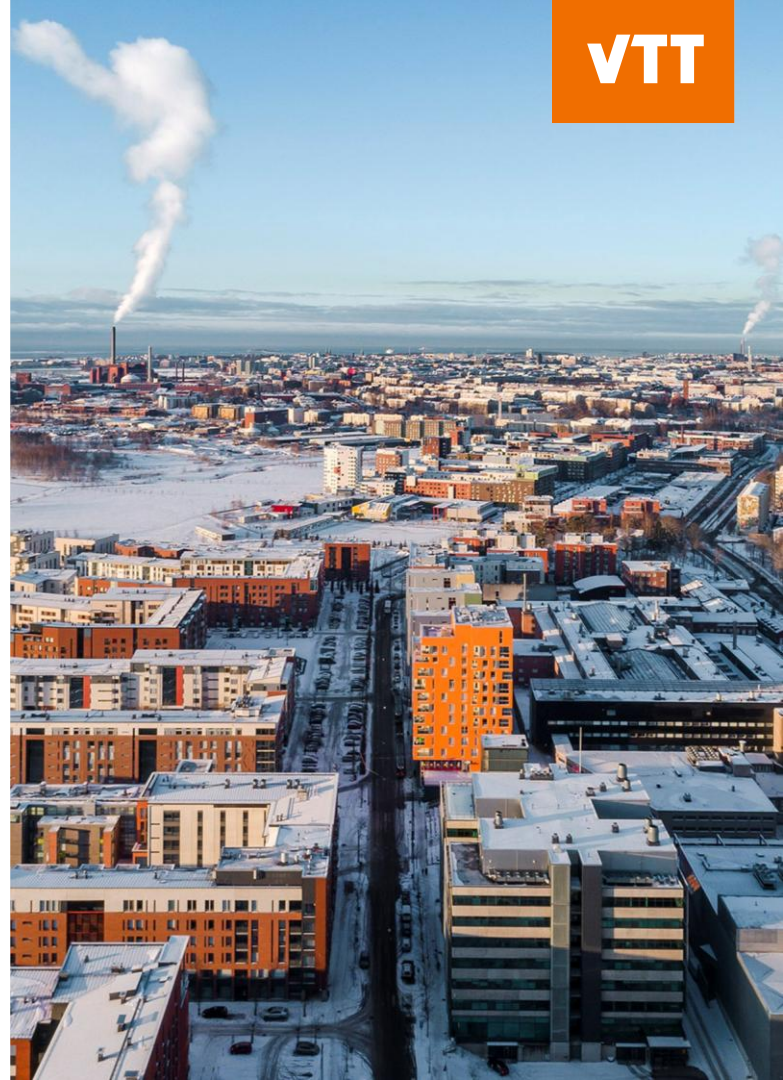
**75%**  
of energy is  
consumed in  
cities

**60%**  
of GHG are  
emitted in cities

SOURCES:

<https://www.worldbank.org/en/topic/urbandevelopment/overview#1>

<https://www.un.org/en/climatechange/climate-solutions/cities-pollution>



**Cities are forced to cope with existing serious issues while being forerunners in fighting climate change, build resilience, etc.**



# Thank you!

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# Impact leadership for future-ready cities

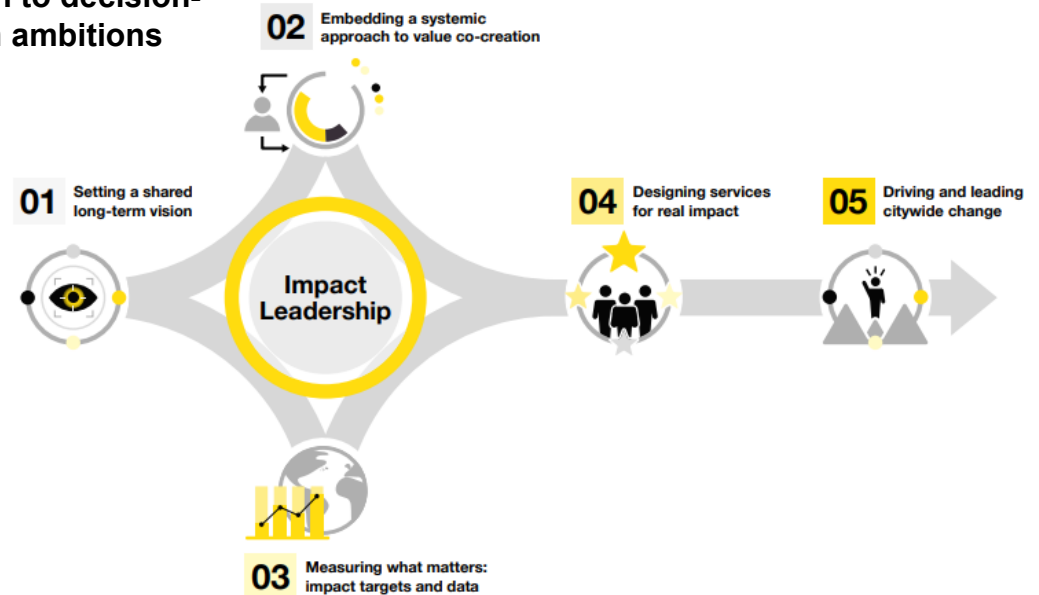
Kirsi Hyytinen, Research Team  
Leader, Future-proof societies, VTT

# Impact leadership for future proof cities

Impact Leadership is VTT's strategic approach, developed to support cities in leading change within a fast-moving world. It provides a **structured, evidence-based approach to decision-making, enabling city leaders to align longterm ambitions with measurable impact.**

The Impact Leadership approach consists of five interconnected building blocks:

- 01 Setting a shared long-term vision
- 02 Embedding a systemic approach to value co-creation
- 03 Measuring what matters: impact targets and data
- 04 Designing services for real impact
- 05 Driving and leading citywide change





## Setting a shared long-term vision



- **A shared vision for a sustainable future sets the direction for a city's development** and helps ensure that individual actions contribute to a bigger purpose. Without a common long-term perspective, efforts across departments and stakeholders risk becoming fragmented or short-sighted.
- Setting a shared long-term vision ensures that **actions are aligned**. This helps city leaders make **consistent, future oriented choices** even amid uncertainty and change.
- This ensures that strategic decisions are grounded in evidence, shared understanding and long-term impact.



## Embedding a systemic approach to value creation



- A systemic approach acknowledges that in cities, **every decision and action is connected to a broader network of influences**. It helps leaders to take into account the interplay between factors such as market conditions, resources, skills and technologies.
- This approach is essential for avoiding unintended consequences and for identifying solutions that create value across multiple areas simultaneously. By employing tools such as system dynamics modelling, cities can simulate **different scenarios, identify leverage points and understand both the immediate and long-term effects of their choices**.
- A systemic approach strengthens strategic decision-making by clarifying **complex dependencies and supporting more informed, resilient choices**



## Measuring what matters: impact targets and data

- **Comprehensive impact indicators** help cities set holistic goals and track progress across **economic, environmental and social dimensions**. Rather than focusing only on financial or technical outcomes, they make it possible to understand the broader value created by decisions and investments.
- By combining measurable data with a systems-level perspective, the **indicators enable decision-makers to see whether actions are moving in the right direction and at the right pace**. They also support more transparent and well-founded decisions by revealing the factors and value choices that influence outcomes





## Designing services for real impact



- Designing for real impact means bringing together diverse actors to **co-develop solutions and services on shared platforms and testbeds.**
- By fostering cooperation and experimentation in real environments, this approach **helps turn ideas into scalable solutions that deliver tangible benefits for people, businesses and communities.**
- Whether in sustainable energy, healthcare or other sectors, these collaborative environments enable the creation of future-resilient and broadly **beneficial innovations that address real-world needs**

05



## Driving and leading citywide change

- Effective change requires **both direction and action**. Building on a shared understanding of priorities, organisations can identify the concrete actions needed to move from strategy to implementation.
- Short- and long-term planning provides a **structured roadmap, ensuring that actions are achievable and aligned with overarching goals**. This phase is essential for turning visions into actionable results and maintaining momentum throughout the change process.
- This helps cities **define priorities and translate strategic goals into actionable plans**.



# Thank you!

Kirsi Hyytinen


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## **Case Espoo: towards systemic impact leadership**

Piia Wollstén, Director of Digital Service Development, City of Espoo

Anni Orttenvuori-Ganter, Lead Data and Knowledge Architect, City of Espoo



# TOWARDS **SYSTEMIC** IMPACT LEADERSHIP

a cross-administrative Impact Leadership program  
with business unit-specific pilot projects

VTT and City of Espoo Webinar,  
29.1.2025

# Strategy

## *Strategic Focus Areas for Digital Development*

# Strategic Focus Areas Steer And Align Digital Development Across Sectors



## Impactful Digital Services

We develop impactful digital services that improve the smoothness of everyday life for residents. Services are implemented efficiently, ensuring synergy benefits and leveraging automation opportunities



## Efficient and Empowering Ways of Working Through Real-Time Data and Modern Tools

Digitalisation enhances service and process efficiency while improving employee experience and wellbeing through modern, fit-for-purpose-tols.



## A data-driven, Predictive and Intelligent city

We use data systematically to lead and develop the city's services. Our focus is on implementing high-impact use cases and goal-oriented, data-driven management



## Capabilities, Skills, and Structures for Digital Transformation

We ensure required capabilities (resources, skills, methods and solutions) for the goal-oriented, and systematic execution of the city's digital transformation.

**Change Management – Strengthening Competence – Building a Shared Situational Awareness**

**Renewing Operating Models – Monitoring Impact – Sustainability Thinking**

# Impact Leadership Roadmap of Espoo

*A changing operating environment*

## Leading the city organisation

- *The Espoo story's impact goals*
- *Business units's impact leadership*
- *Development of system dynamics and other key abilities*
- *Developing organizational culture*

*knowledge leadership*

## Knowledge Management

- *Identifying knowledge management needs*
- *Impact metrics and toolbox*
- *Data sources, data processing and platforms*
- *Knowledge management and architecture*

*knowledge management*

## Urban community and ecosystem management

- *Experimental development with systemic impact frame – Espoo's own Digital Agenda*
- *The Cityverse roadmap and ecosystem participation in sustainable development*
- *Ensuring the human-centric impact of cooperation in the welfare area*



*Decisions with an impact relying on a wide-ranging knowledge and data base, so that we can solve the problems of an increasingly complex society.*



*social, cultural, ecological and economic sustainability*

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Story

*Impact Leadership as part of Espoo-story*

# Towards Systemic Impact Leadership

## Why?

Espoo is building a data-driven, proactive, and intelligent city:



To transform residents' lives through more efficient services



To achieve ambitious sustainability and climate goals



To promote social inclusion and well-being



To improve decision-making and productivity

## How?

Systems thinking helps us in evolving impact leadership into a city-wide approach:



We develop strategic indicators and analytic capabilities



We increase the ability and know-how everywhere in the city organization



We use digital environments, analytics platforms and impact modelling tools

## What?

By focusing on impact, we deliver better services and improve decision-making in current pilot projects:



Early childhood and basic education



Cultural education



Centralized parking



Urban planning



Library services



Senior sports



Youth services



Outdoor gyms

# Impact Leadership as Part of the Espoo Story and Digitalisation Objectives

Strategic

**All neighbourhoods of a sustainably growing Espoo are pleasant and safe**      **Espoo is the best place to innovate, do business, and create jobs**      **In Espoo, every child and young person can succeed and reach their full potential**      **Espoo is progressing towards carbon neutrality and improving the state of nature**

**Staff are doing well and make effective use of partnerships**      **Espoo succeeds in the opportunities and challenges of internationalisation**      **Espoo's economy is on a sustainable footing**

Tactical

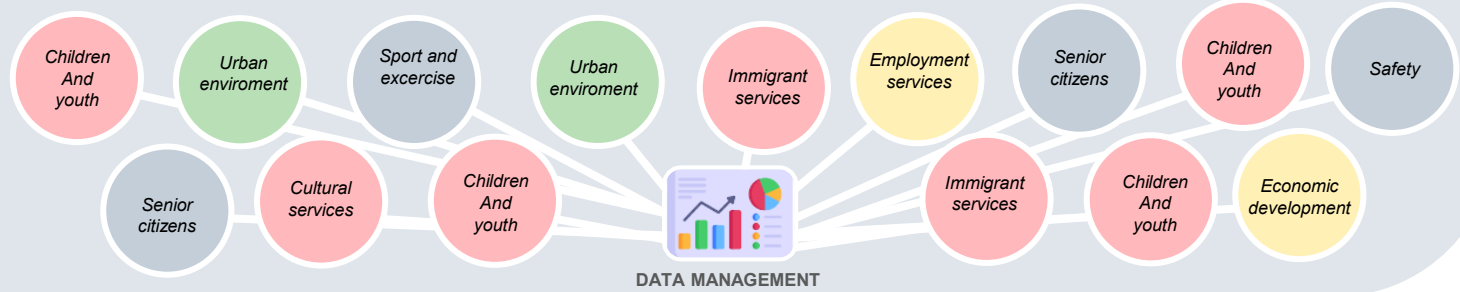
**Impact evaluation and systems thinking training**      **Impact evaluation and systems thinking further training**      **Simulation workshops Gaming**      **Consultative support**

**Impactful Digital Services for everyday life for residents**      **Efficient and Empowering Working, Real-Time Data and Modern Tools**      **A data-driven, Predictive and Intelligent city**      **Capabilities, Skills, and Structures for Digital Transformation**

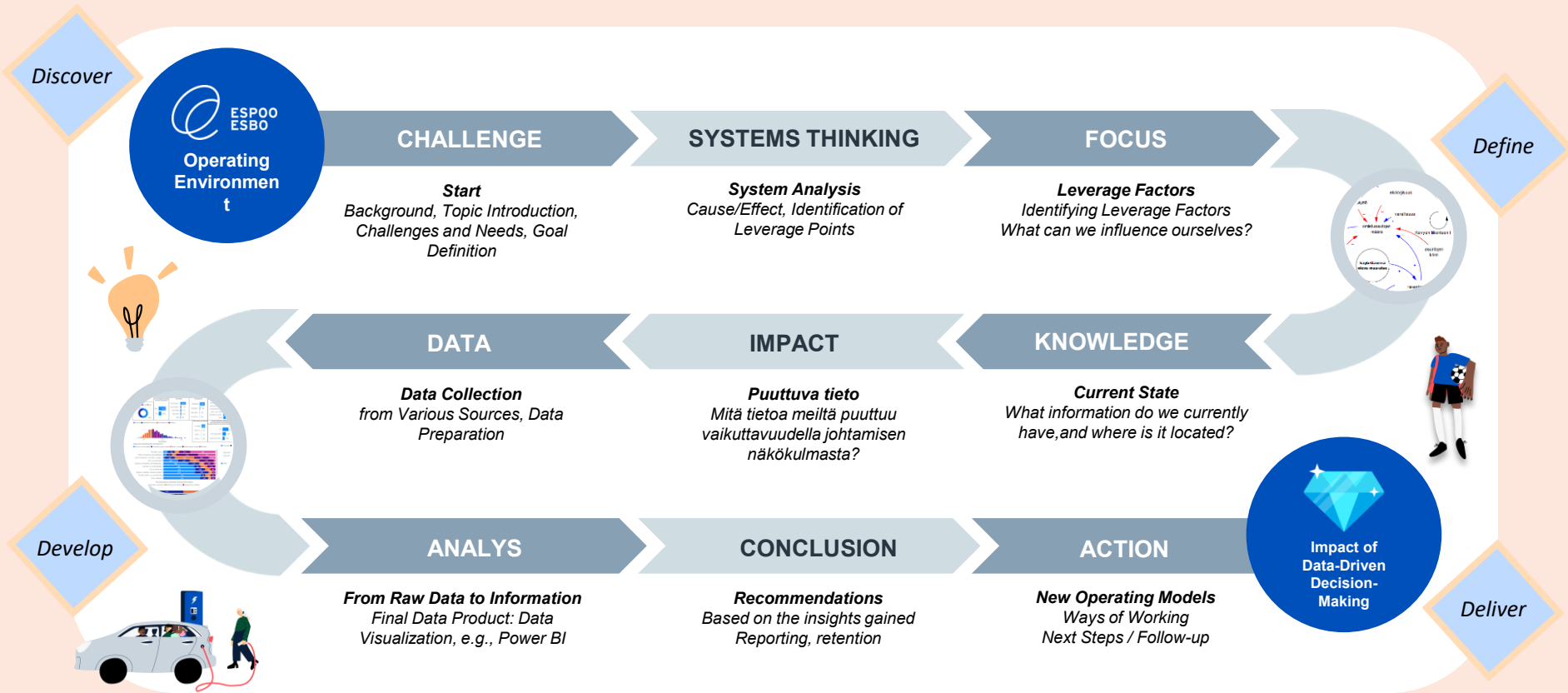
*Espoo purposefully leverages digitalisation across its operational processes to improve productivity. Leadership and decision-making are based on the use of data, analytics, and a shared situational awareness across the organisation.*

Operative

## BUSINESS-UNIT SPECIFIC IMPACT LEADERSHIP PILOTS

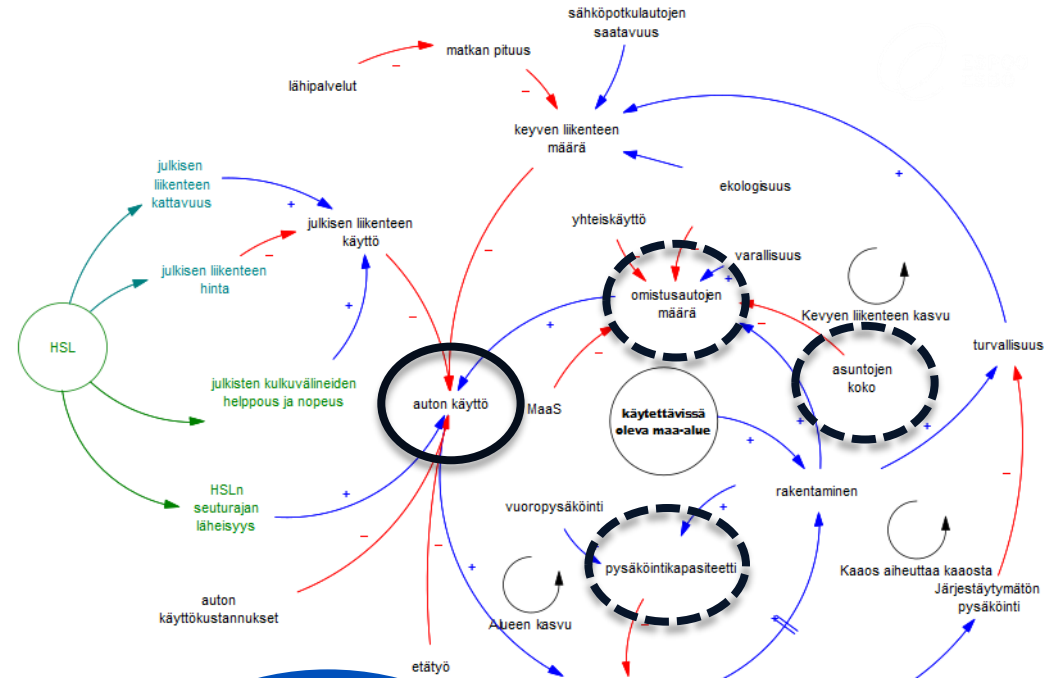
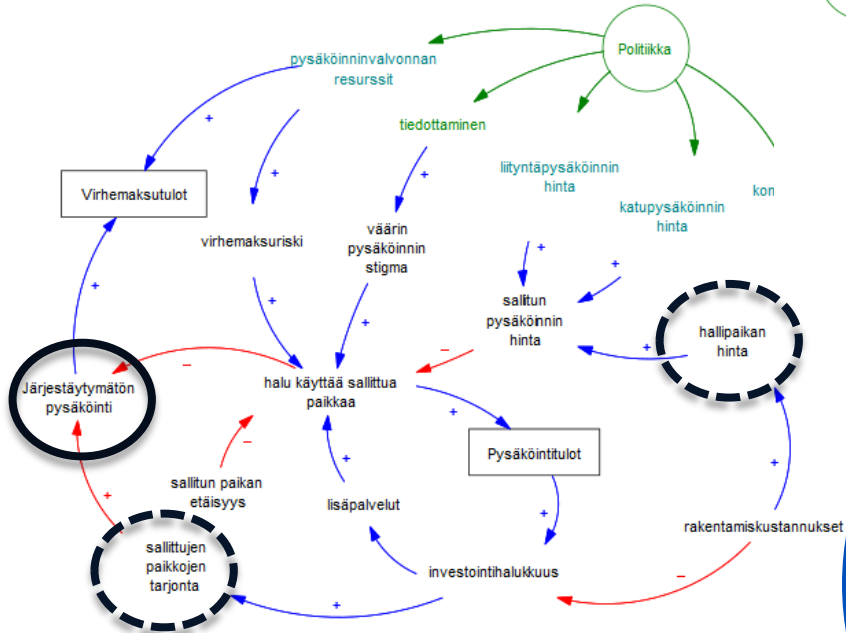


# Impact Leadership Process



# Short and long term impacts

- How a new urban area is built
- How people and traffic flow develop
- What factors affect the use of the car
- Background factors of regional parking



*In the impact evaluation training, it is an option to do a final thesis on the chosen theme for participant's unit*

*The theme is often a need that arises from operations, from knowledge management and current phenomena*

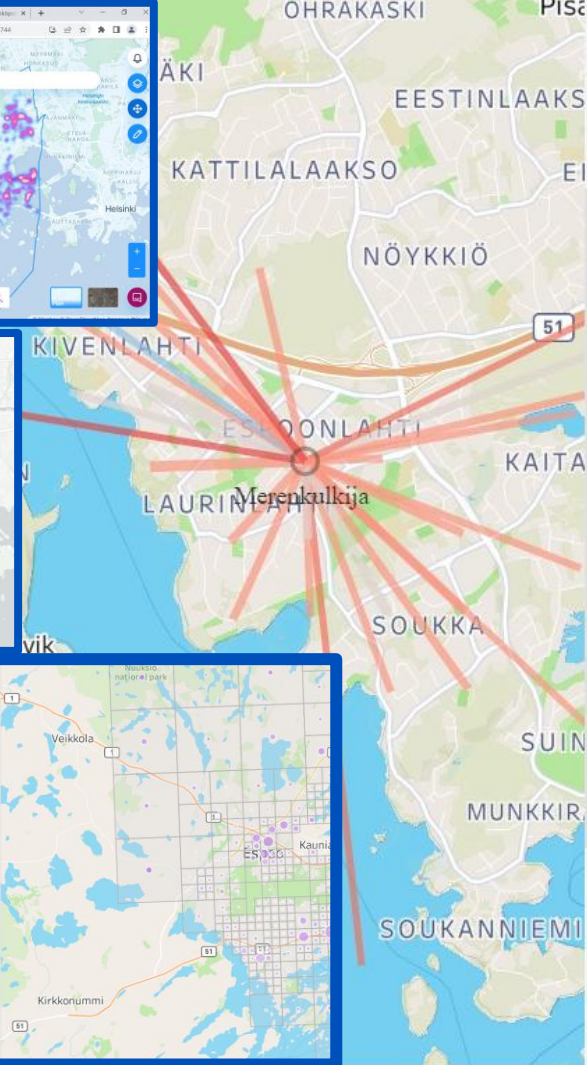
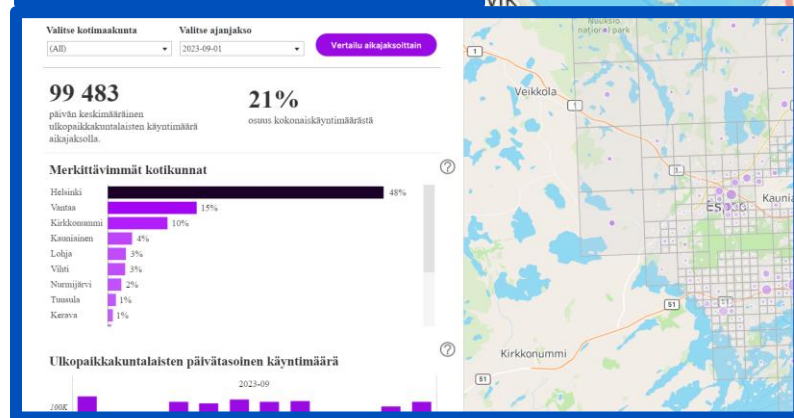
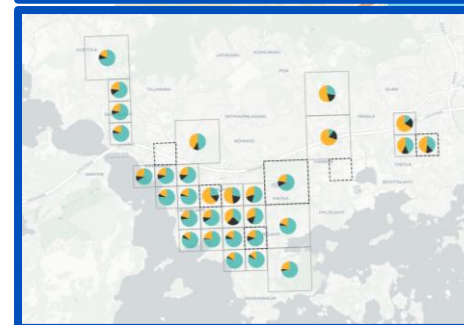
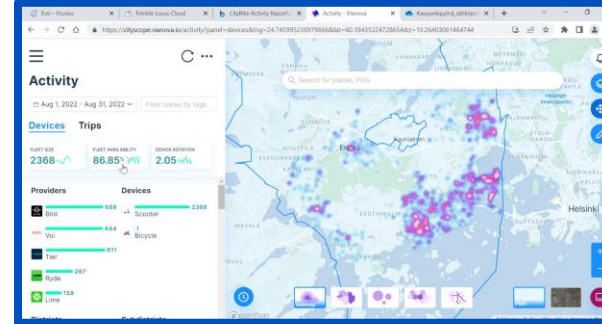
*New pilots can emerge from the final work*

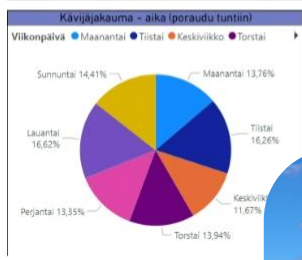
# City Planning Department

## Impact framework of rail traffic and exploring new data sources in urban transport planning

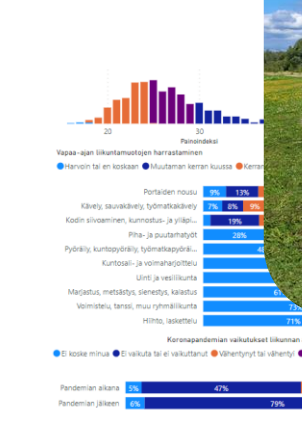
- Grid-specific movement analysis:** from which areas people travel to the different city centers of Espoo. In the analysis, grid-specific data has been used, where the size of the grids varies between 250 and 4000 meters in different areas of Espoo. With the help of the data, it was possible to examine the influence areas and volumes of different urban centers.
- Comparison of travel volumes:** The data has been analyzed for travel volumes in different months and years, in order to see how, for example, the Länsimetro extension has affected travel volumes in the greater Espoonlahti area and other developing trackside areas.
- Espoo's internal and external journeys:** The analysis looked at Espoo's internal and external journeys in order to get indications of how Espoo's urban structure, cross traffic and transport network affect movement in the entire capital region.

The data analyzes formed in the pilot have provided new indicators for urban and traffic planning, but also increased the understanding of how a data source such as mobile data should be used in the future.





**Put existing data and knowledge to work!**





**ESPOO**  
**ESBO**

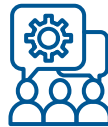
# Integrating data for better urban decisions

Peter Ylén, Lead, System Dynamics, VTT

# Systemic approach to data based urban decision making



**Identification of complex cause-and-effect relationships**



**Building and communicating mental models**



**Understanding the long and short term effects**



**Anticipating unexpected consequences**



**Identification of leverage variables to create a positive spiral**



**Simulation of decisions**

# From qualitative to quantitative



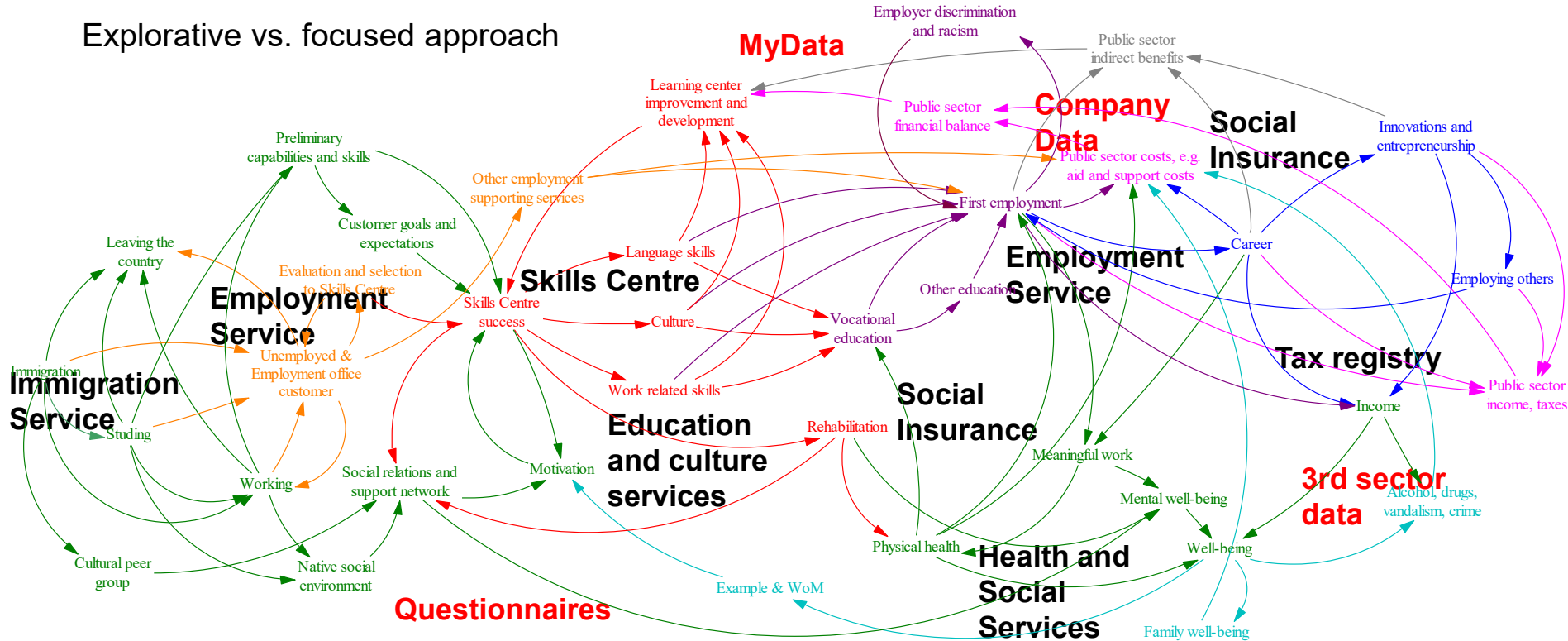
# Holistic map

## Framework for systems thinking

A holistic map creates a big picture of the cross-effects, feedback loops and factors affecting the system. It serves as a framework for thinking and used for evaluating bottlenecks, backlashes and ripple effects as well as unexpected side effects. When a clear big picture is drawn, it is easier to focus into potential data sources.

# What kind of data can be used?

Explorative vs. focused approach



# Change in time

## Structure generates behavior

Structural examination reveals how delays, balancing and reinforcing loops create different dynamic behaviors. It helps to determine leverage factors, buffered traps, irreversible paths and counterintuitive behavior/policy resistance. Qualitative structural analysis is a quick and easy methodology leading into potential behavioral outcomes, which can be later validated with data.



# Case Kera, Espoo

- Transformation of Kera from an industrial and logistics centered area to a unique urban center with emphasis on circular and sharing economy as well as light and public transport.

Preliminary planning guidelines:  
14 000 inhabitants, 10 000 jobs



*Keran osayleiskaava-alueen sijainti*

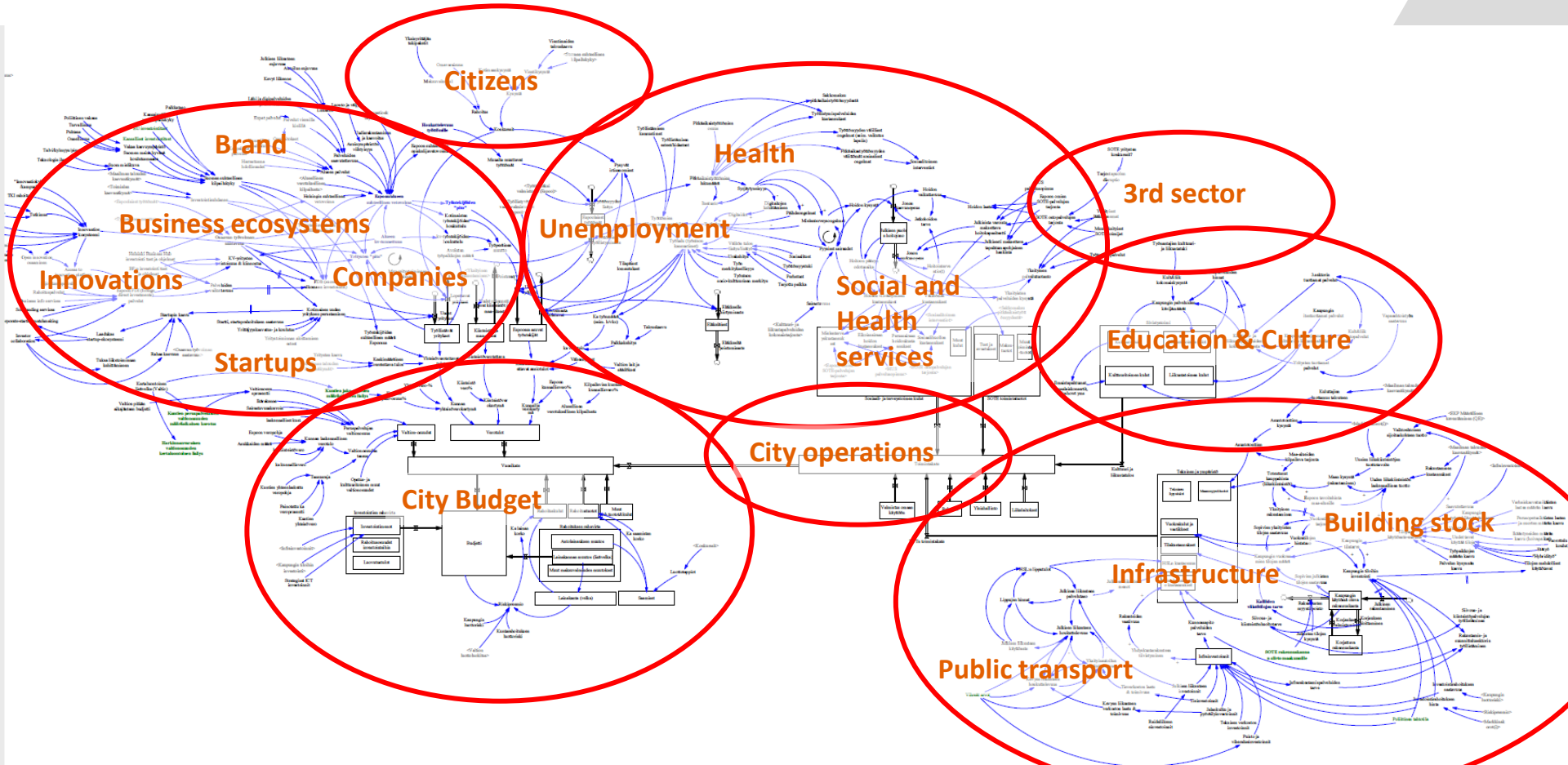
# Dynamic assessment

## What-if simulations

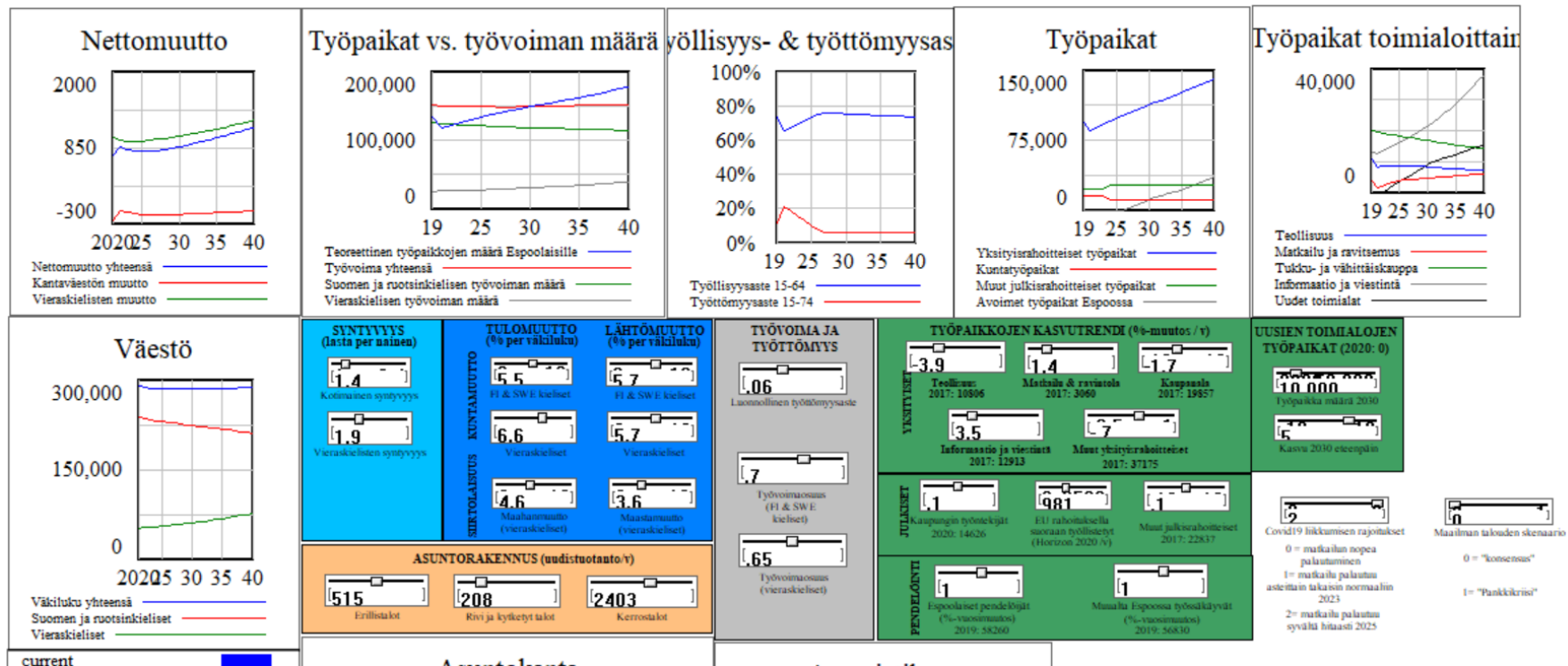
Model-based predictive impact assessment is ideal for situations where it is necessary to examine the simulated impact of different decisions. Quantitative system dynamic models, computer simulations, sensitivity analyses and optimization of control structures enable questions, such as, when and how much.



# Preliminary model structure for the City of Espoo



# Simulator dashboard



# Systemic renewal

## Organizational evolution from within

A systems intelligent organization is not created only with new instructions and tools. development from within and utilising the competence and understanding of the entire organization is required. It is the desire to be aware of the complex systems to which we belong and which we influence as they influence us at the same time. We need to learn to look deeper into areas we don't normally see and find structures that create space for better collaboration.



**Through training, you can achieve, for example, the following benefits:**

- You are able to structure, analyze and make decisions about the most essential profit and risk factors of the operation
- Planning and construction of organizational structures and functions becomes easier
- Everyday decision-making situations become more efficient and the quality of planning decisions improves
- Understanding of human factors and motivations increases



## IMPACT EVALUATION TRAINING PROGRAMME

**Systems thinking and data in the management of complex systems**

– Peter Ylén, leading researcher VTT

**6 x 2h participatory training with different themes including practice tasks**

### Training Themes:

*Unexpected impacts of decisions*

*Applications of system dynamics*

*Utilizing data and expert knowledge*

*What does dynamics mean*

*How to describe systems*

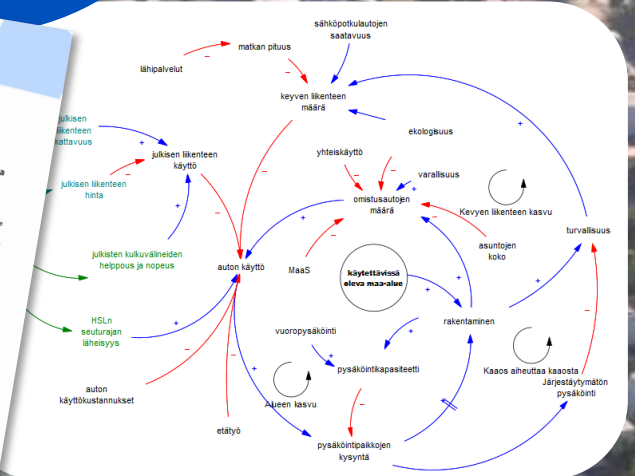
*How to approach and solve business problems*

*Continuing to use models to support decision-making*

*Recognizable dynamics?*

*When impacts are not immediately visible*

*Final seminar*



# Thank you!

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## Q&A

- Please submit your questions through "Ask a question" tab
  - Please note that the tab is not visible in the full screen mode

# Feedback and contact us

- A feedback questionnaire will pop-up in a few seconds after you close the webinar
  - Your possibility to give us feedback
  - Another opportunity to ask questions or request a meeting with our experts

- Contact us:

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# Speakers



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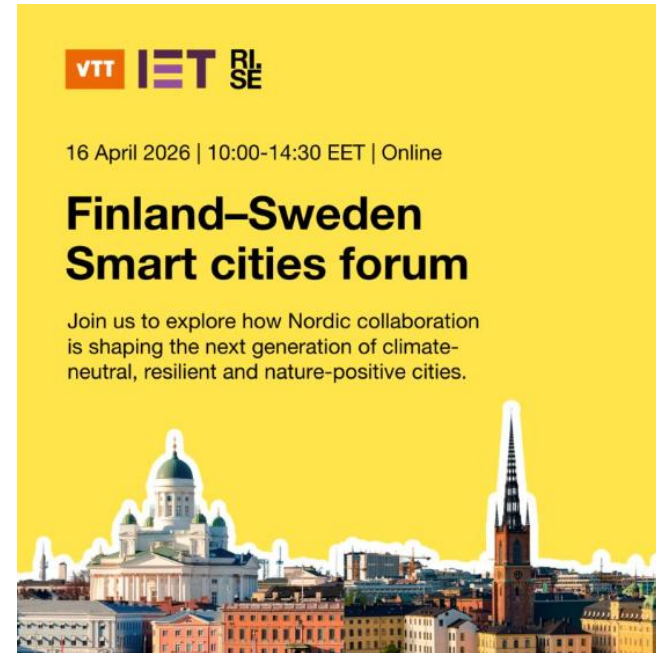
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# Finland-Sweden smart cities forum

- Throughout the day, Finnish and Swedish frontrunners will present cutting-edge climate action methods, including digital twins, participatory planning, impact assessment tools and national programmes accelerating the green transition.
- You'll hear concrete case examples from pioneering cities and energy companies that are already transforming their systems and learn what it takes to scale these solutions across Europe. The event is organised in partnership with RISE and IET Smart Cities journal.
- Agenda and registration [HERE](#)



# bey<sup>0</sup>nd

the obvious

Thank you!

[vttresearch.com](http://vttresearch.com)