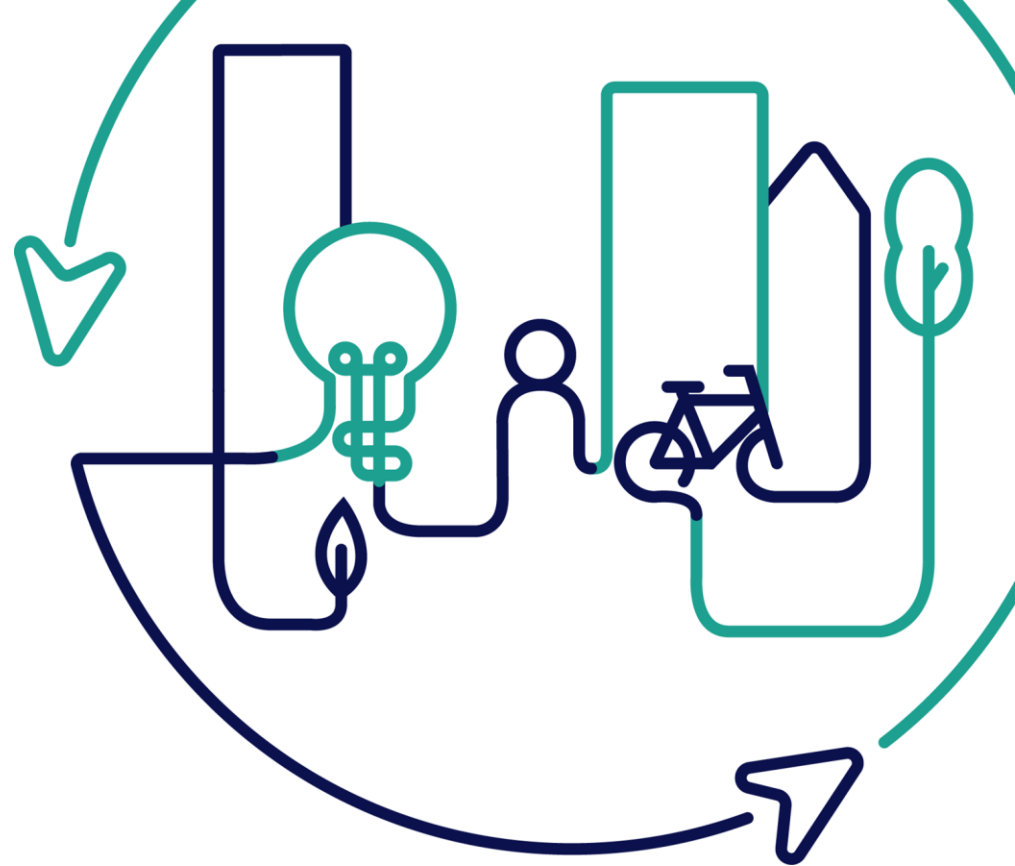# EUROPEAN URBAN INITIATIVE

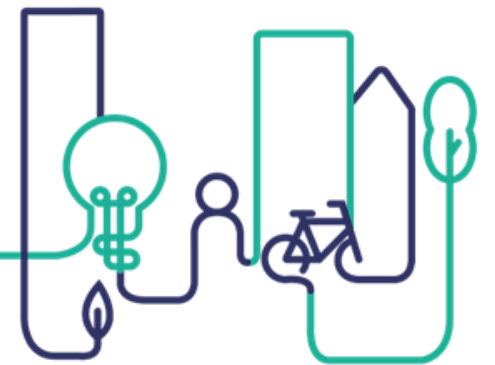Co-funded by
the European Union

How to run a test bed
Insights from Oulu and Kuopio

Welcome!

Session Plan

14:00 — **Introduction**

14:10 — **Presentations from Oulu & Kuopio**

14:35 — **Panel Q & A**

14:50 — **Wrap-up & Close**

Session Aims

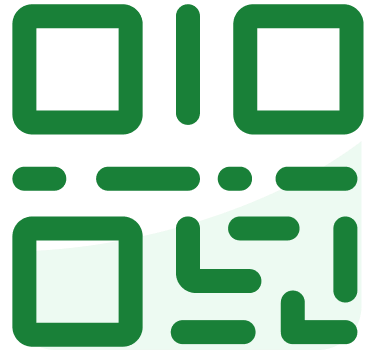**1** To share insights from Oulu and Kuopio, based on their experience of setting up and operating test beds aimed at optimising local cross sectoral assets, unlocking innovation and generating value

2 To provide participants an opportunity pose questions to the speakers and to share ideas.

slido

Join at slido.com
#2470140

ⓘ Start presenting to display the joining instructions on this slide.

slido

What is expected from the company or partner participating in the testing activities?

ⓘ Start presenting to display the poll results on this slide.

slido

What is the direct impact that cities can expect from providing test bed activities, besides serving citizens with better solutions?

ⓘ Start presenting to display the poll results on this slide.

slido

What type of benefit do test bed activities provide for companies?

ⓘ Start presenting to display the poll results on this slide.

Over to Jari & Maria from BusinessOulu!

BusinessAsema as a testbed

Jari Jokisalo, Specialist, BusinessOulu

24.5.2024

Co-funded by
the European Union

People. Companies.
Ideas.

BUSINESS
ASEMA

BUSINESS ASEMA

2. Service info & International House Oulu

> Services **without reservation**

3. BusinessOulu

> Employment services **by reservation**
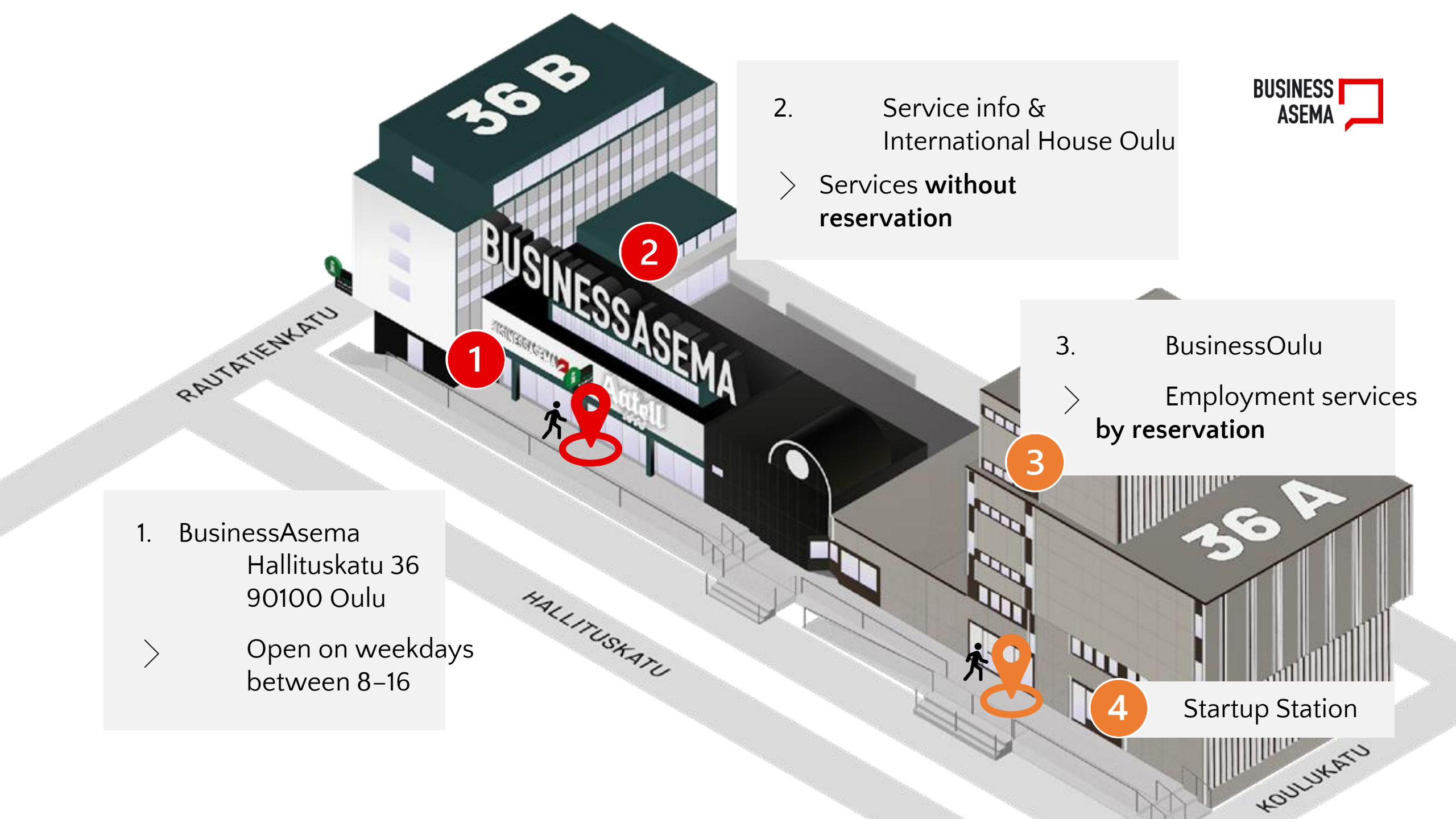
1. BusinessAsema
   Hallituskatu 36
   90100 Oulu

> Open on weekdays between 8–16

4. Startup Station

Versatile selection of services
for all people in Oulu

Services without reservation

> **Employment counselling**

> **Business counselling** and help in establishing, developing, and financing a business

> **Business advisors** to meet

> **Recruitment support** for employers

> **Help in digital job seeking**

> **Career and education coaching for job seekers**

> **Business mentors** to support and spar entrepreneurs

> **Counselling for immigrants**

> **Housing advice**

> **Financial advice**

> **Kela services**

> **Villa Victor**

> **OSAO**

BUSINESS ASEMA

Trials and testing
at BusinessAsema

BusinessAsema is a platform for companies to try out, test and develop new solutions.

SUGGEST AN IDEA FOR TRIALS:
jari.jokisalo@businessoulu.com

An intelligent property.
Agile pilots.
Real time Digital Twin.
Common data platform.
Proptech.

BUSINESS
ASEMA

BusinessAsema – Digital Twins

Haltian:

BusinessAsema has been used as an open iot and digital twin reference platform to develop further the Emphatic Building, opening it to new integrations, utilizing 130 iot sensors.

Other digital twins:
Sweco ltd – property technology
Fab lab Digital Twin (student work)
Olkkari Digital Twin (EMETA project)
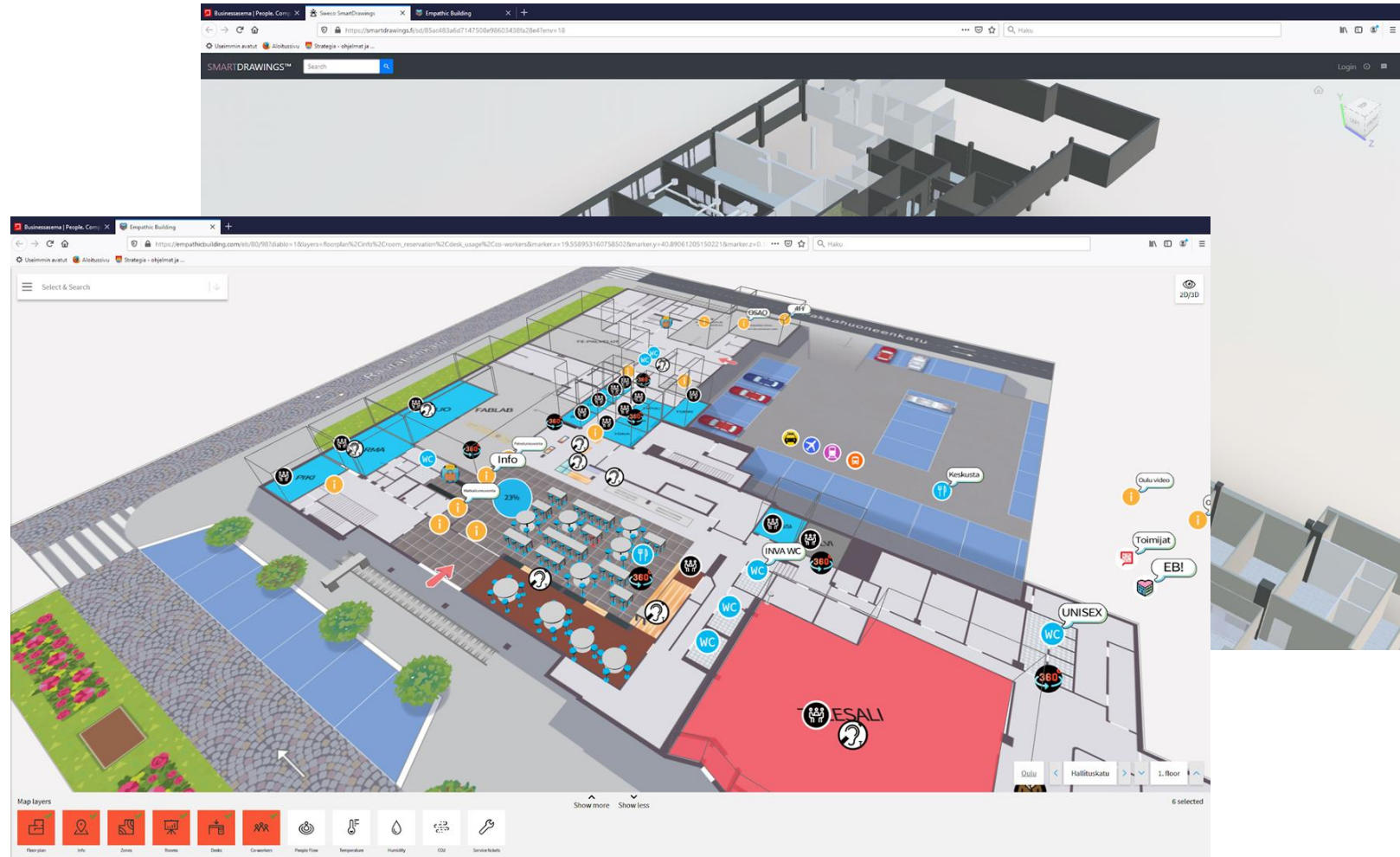
OIA Olkkari space
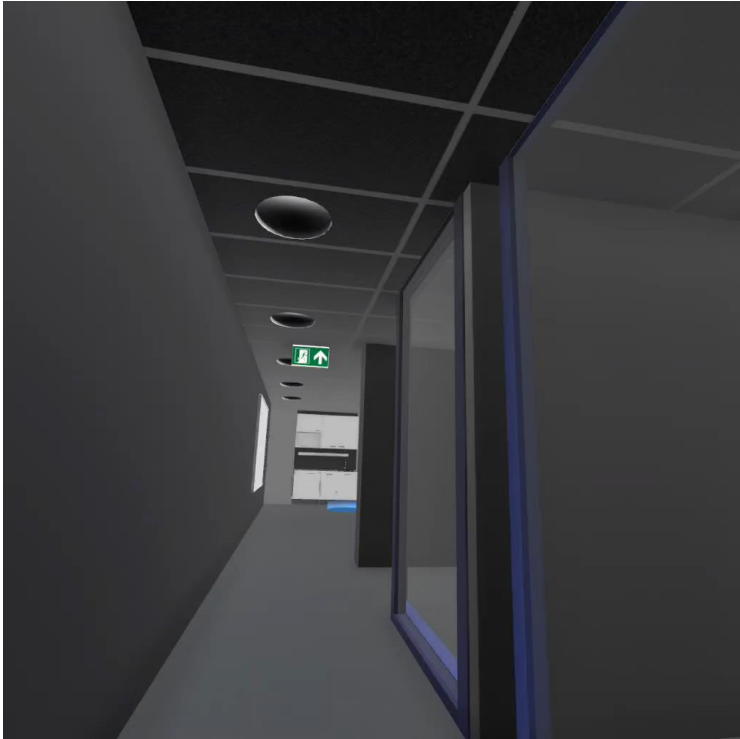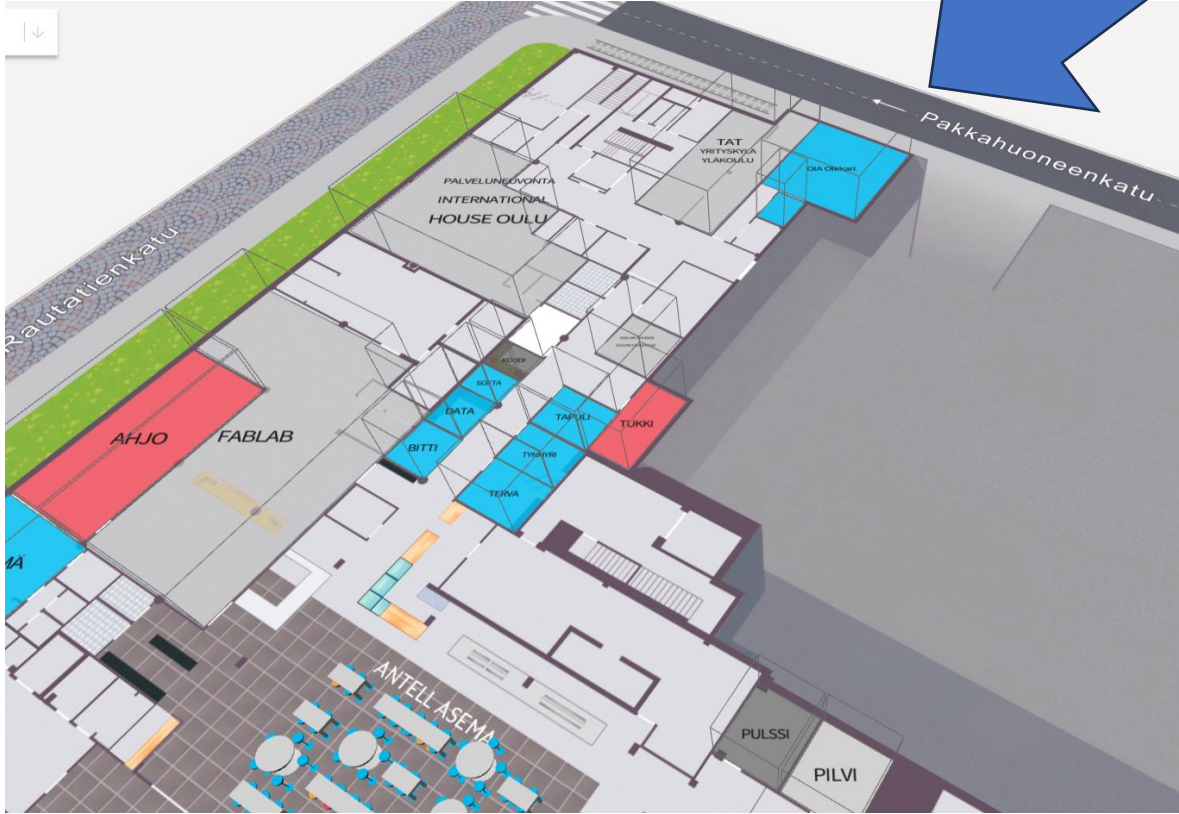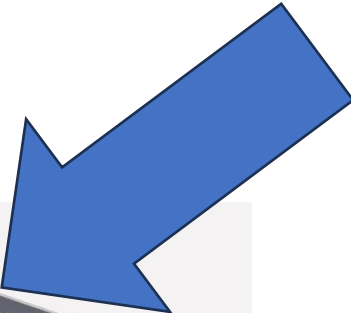
Oulu Innovation Alliance

offers the best innovation partnership, inviting companies to network, solve challenges, and boost their product development in the "OIA living room" at BusinessAsema

CAFÉ AND RESTAURANT

OPEN WORKSPACES

EVENTS AND COACHING
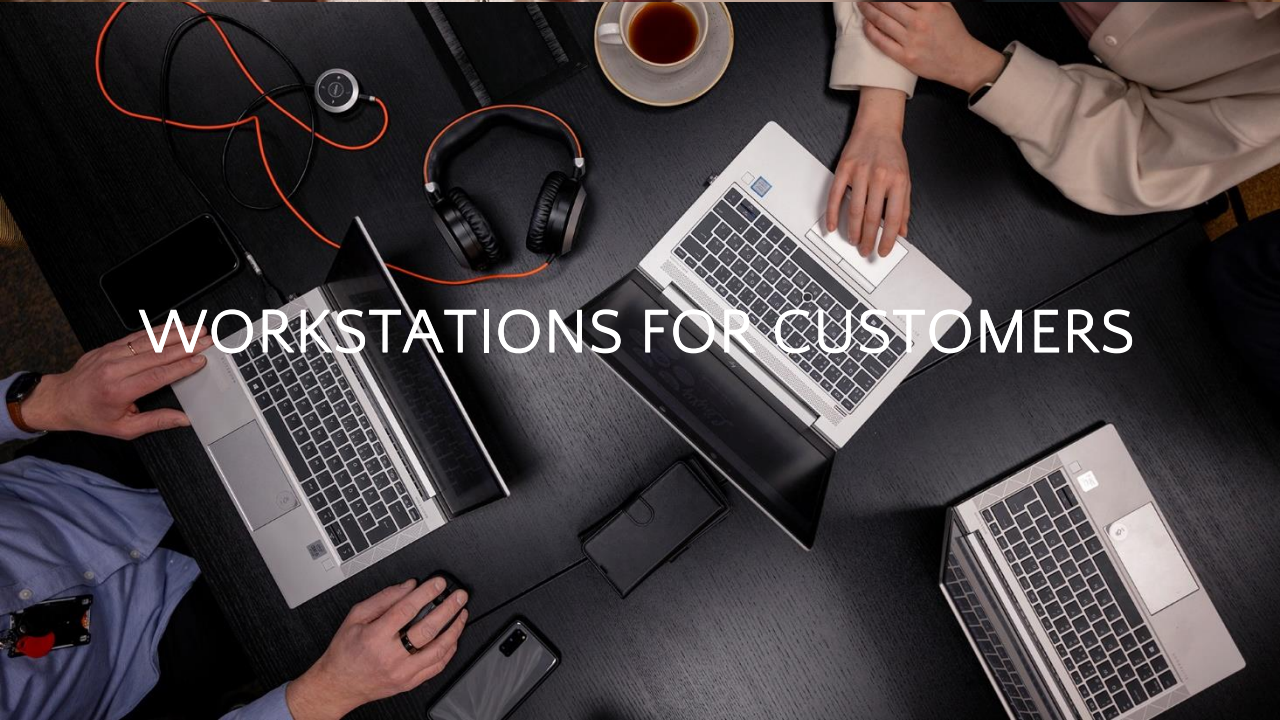
WORKSTATIONS FOR CUSTOMERS

Smart City Oulu –program 2024-2028: 100 Steps Towards Smarter Oulu

OuluTestBed

Citizens

Work practices

Oulu 2026 digitally

Personnel skills

Smart Oulu is carbon neutral in 2035

FabCity Oulu (STEAM + sustainable development)

100 steps towards smarter Oulu

Human centered digitalization and participation

Using data

Co-operation, networks and internationalization

OuluAI

Companies

MetaCityOulu and Oulu Digital Twin Kaijonharju–Linnanmaa city region and Oulu building fare in 2025

Communication and brand as a smart city

Smart City Oulu –program consists of seven main themes and five crosscutting ways of doing things. Program has 100 different tasks to achieve a smarter Oulu. Those steps are divided to 50 single actions and 50 company pilots and tests in real city environment.
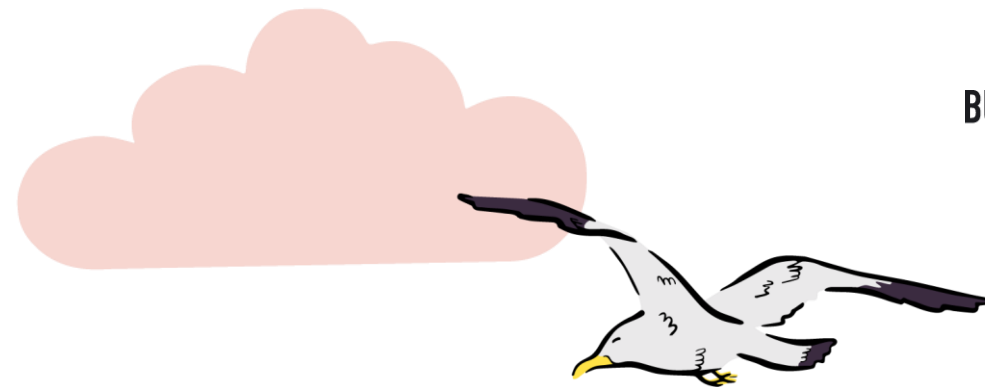
Helena Poukkanen

COMMUNITY MANAGER

Jannika Leinonen

EVENTS
POP-UP SERVICES

Jari Uusitalo

FABLAB

Jari Jokisalo

SMART BUILDING

BUSINESS ASEMA

✉ firstname.lastname@businessoulu.com

businessasema.com | businessoulu.com
info@businessasema.com

Co-funded by
the European Union

Let's hear from Arto and Kuopio!
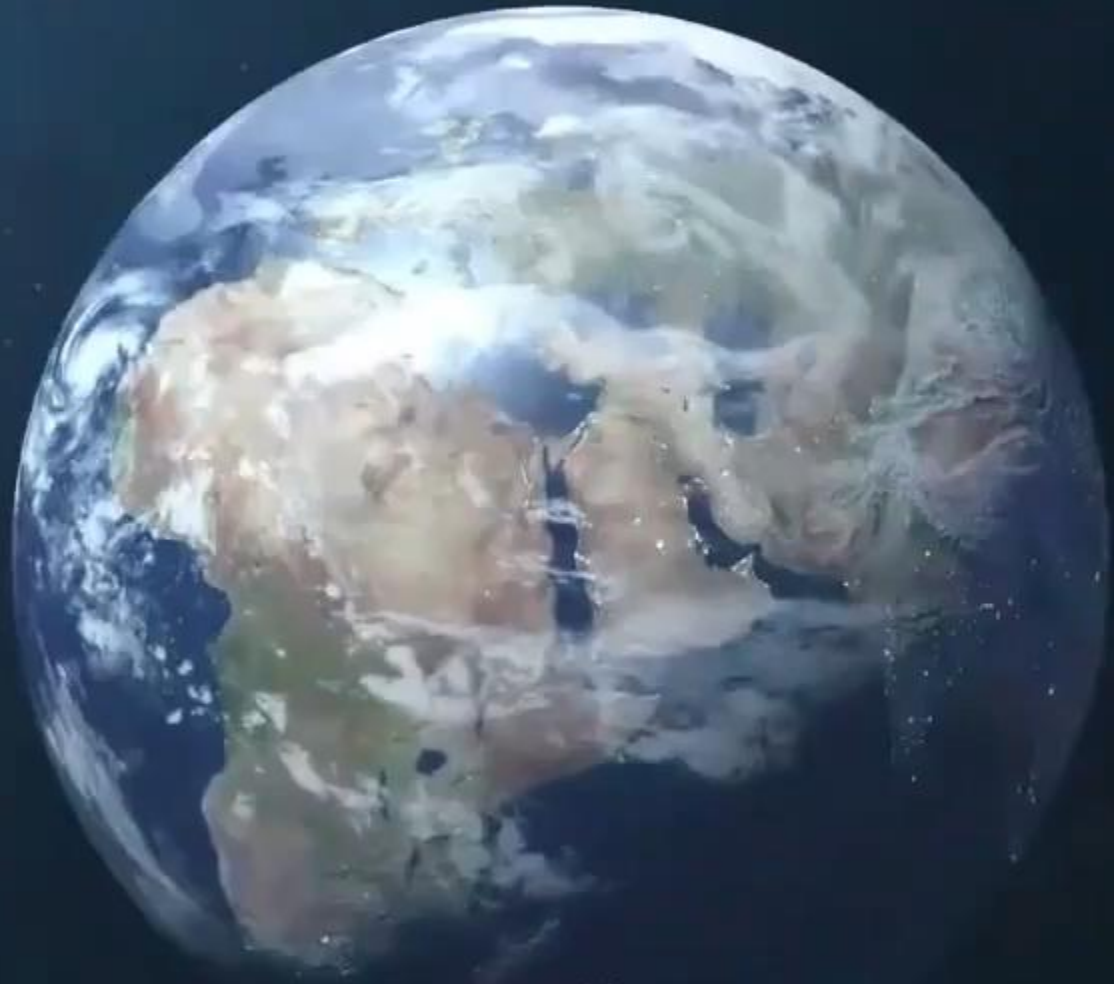
Kuopio – the Capital of Good Life

Kuopio is the center of Eastern Finland – the Capital of Lakeland – and one of the most dynamic cities when it comes to residential development, attractiveness, job opportunities and population growth.

THE **8**TH

LARGEST CITY
IN FINLAND

25,000

STUDENTS

A POPULATION OF

124,000

RESIDENTS

THE LARGEST NATIONAL
CITY PARK WITH
A SURFACE AREA OF

7,200

MILLION SQUARE METRE

112

DIFFERENT NATIONALITIES
LIVING IN KUOPIO

SURROUNDED
BY OVER
100

LAKES

THE HAPPIEST

RESIDENTS AMONG
THE LARGEST
CITIES IN FINLAND

THE IMAGE OF KUOPIO

THE **2**ND

MOST POSITIVE
(AMONG FINNISH CITIES)

55,000

JOBS

THE CITY CENTER
OF KUOPIO IS

**THE LIVELIEST
IN FINLAND**

8,000

COMPANIES

**NATIONAL
AGREEMENT**

IN HEALTH AND
WELLBEING
ECOSYSTEM AND
WATER CLUSTER

KUOPIO250

2025

KUOPIO's 250TH ANNIVERSARY

Journey from the past into the future

KUOPIO LIVING LAB

LIVING LAB

"Living Lab operates as an authentic co-creation environment to enable collaboration between citizens, industry, academia and public sector"

Quadruple Helix – Open Innovation 2.0

Kuopio Living Lab journey & milestones

Testbed East Finland Selfcare and telehealth open innovation environment
- Feasibility study

Development environment for distant and selfcare Northern-Savo
- Regional network

Healthy Citizen and Safe Environment for living at home
- Experimenting

A new urban neighbourhood - Savilahti, Kuopio, "the most interesting learning and innovation environments in Europe" 2014-2030
- Escalating

2009   **2010**   **2011**   **2014**

World-class testbeds from Finland
- National level marketing

Kuopio Living Lab – EEPA National Winner – Improving the Business Environment and supporting the digital transition
- Effectiveness

Kuopio "4 Stars" Reference Site of the European Innovation Partnership on Active and Healthy Ageing
- Assessment

Primary health care / home care Specialised health care
- Ecosystem building

2024   **2023**   **2021**   **2020**   **2019**   **2016**

The Center of Excellence for Comprehensive Security– Strategic foresight – Resilience – new innovations
- City innovative vision

innocities

The aim of InnoCities is to strengthen the expertise and collaboration of urban areas, to create international-level innovation and experimentation environments and to create new business ecosystems. (2021-2027)
- Sustainable urban development

Urban Environment, Growth and Learning, Wellbeing Promotion
- Expanding

KUOPIO WATER CLUSTER   ENERGY CLUSTER NORTH SAVO   AGRI-FOOD CLUSTER NORTH SAVO - POHJOIS-SAVO   KUOPIO HEALTH   DiGiCENTERNS   BUSINESS CENTER POHJOIS-SAVO · NORTH SAVO

Why?

Living lab in regional innovation ecosystem

Living Labs are in the heart of innovation ecosystems

Cities have a clear role in the innovation ecosystem as a neutral facilitator and coordinator, with which all stakeholders can easily cooperate

Anchors

Growth SMEs

Startups

Incubation Environments

Living Labs / Test Beds

KUOPIO LIVING LAB

Cluster Policies & Programs

Research & Development Activities

Education (Elementary to University)

Physical Infrastructure and Service Structures

National / Regional Innovation Policy

Smart Orchestration

Activity Drivers:

Corporations and Forums

Public–Private Partnerships

Public Policy

model: innovation hub framework (Launonen-Viitanen, 2011)

KUOPIO LIVING LAB

2023 ->

Health and social services reform

City of Kuopio
- Urban Environment
- Growth and Learning
- ~~Social and Health~~
- Wellbeing Promotion

Social and Health

Wellbeing services county of North Savo
Kuopio University Hospital
- Specialised medical care
- All medical specialities

Savonia University of Applied Sciences
- Feasibility check
- Development support

Experimental Culture, Co-Creation, Crowdsourcing

KUOPIO

How?

How we do it?
- advertise

Regional level

BUSINESS**KUOPIO**

BUSINESS CENTER
POHJOIS-SAVO · NORTH SAVO

Wellbeing services
county of North Savo

SAVONIA
UNIVERSITY OF APPLIED SCIENCES

National / ecosystem level

BUSINESS FINLAND

innocities

KUOPIO WATER CLUSTER

ENERGY CLUSTER
NORTH SAVO

KUOPIO HEALTH

DiGiCENTER NS

AGRI-FOOD CLUSTER
NORTH SAVO - POHJOIS-SAVO

International level

World Health Organization
European Region

Healthy Cities 21st Century

EDIH
European Digital Innovation Hubs Network

European Network of Living Labs

EUROPEAN CLUSTER COLLABORATION PLATFORM

Advertising as part of larger ecosystem

Kuopio Health Ecosystem Map
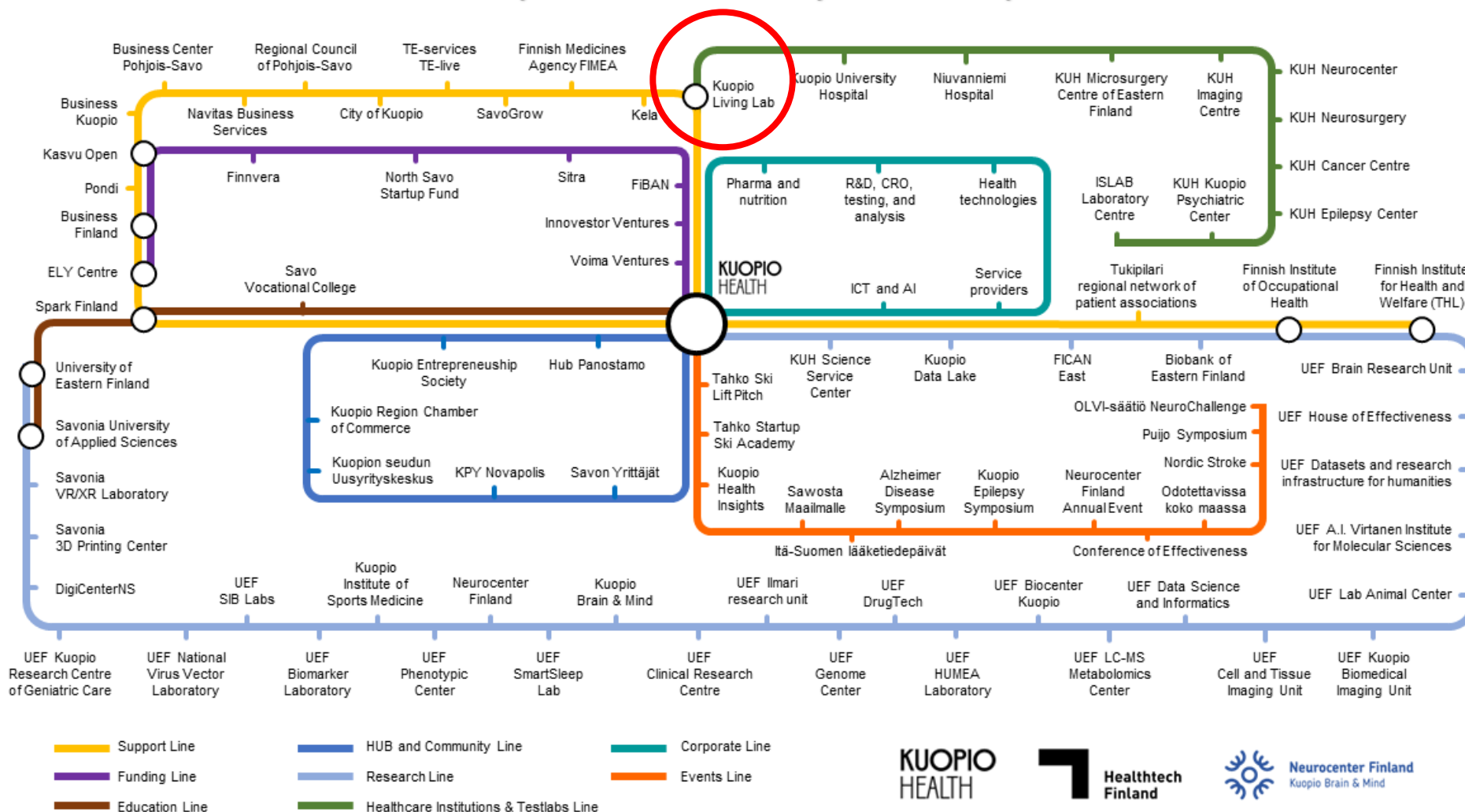
Advertising as part of national visibility to abroad – Partneships - Collaboration
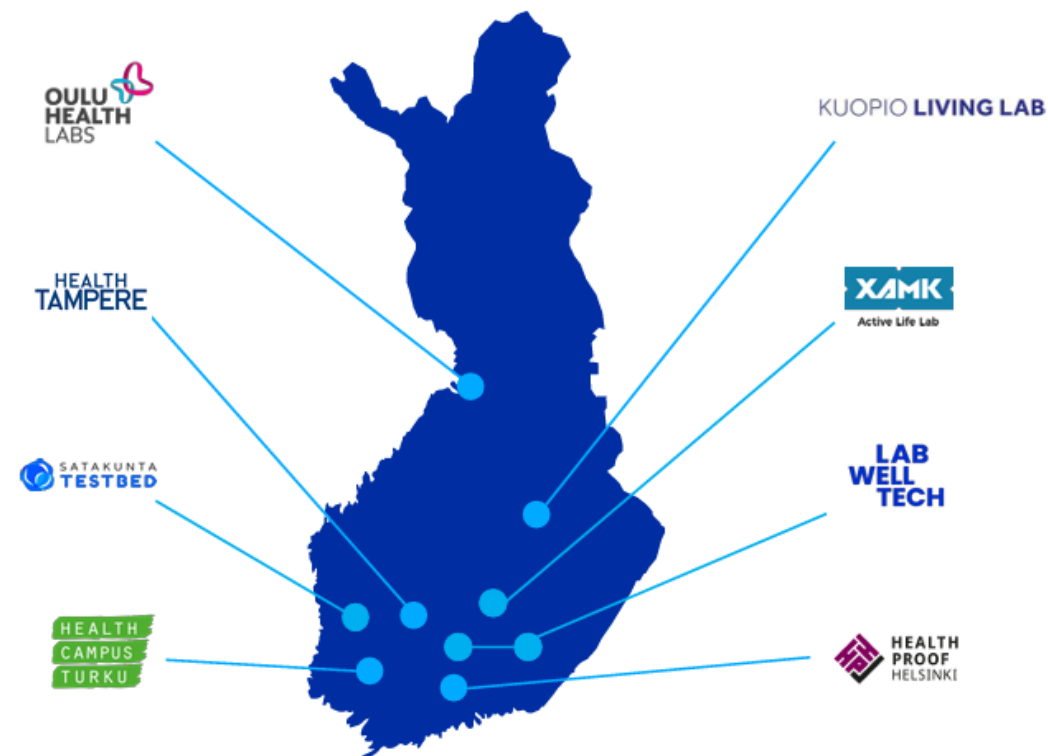
How we do it?
- who gets to test

1 CONTACT

KUOPIO LIVING LAB

CRITERIA EXAMPLES
- MATCH TO CITY'S GOALS
- GENUINE NEED
- SOLVES A REAL CHALLENGE
- SCALABILITY
- COSTS / FUNDING
- DURATION
- NEED FOR PARTNERS
- DIGITAL / PHYSICAL / IDEA

2 INPUT

- INNOVATOR INFORMATION
- NEEDS AND EXPECTATIONS FOR COLLABORATION

3 RESPONSE

- INITIAL FEASIBILITY CHECK
- RESPONSE

Photo: KuopioTahko

How we do it?
- Governance

Connection to the city of Kuopio's strategy

Coordinated under the Mayor

Strategy Director

Business Development Director

Contact point

Chief Innovation Officer

Business Promotion Officer

Strategy and Development

Business Development

Coordinators in service areas

Urban Environment

Growth and Learning

Wellbeing Promotion

How we do it?
- Operation

I have an idea

Start-up meeting
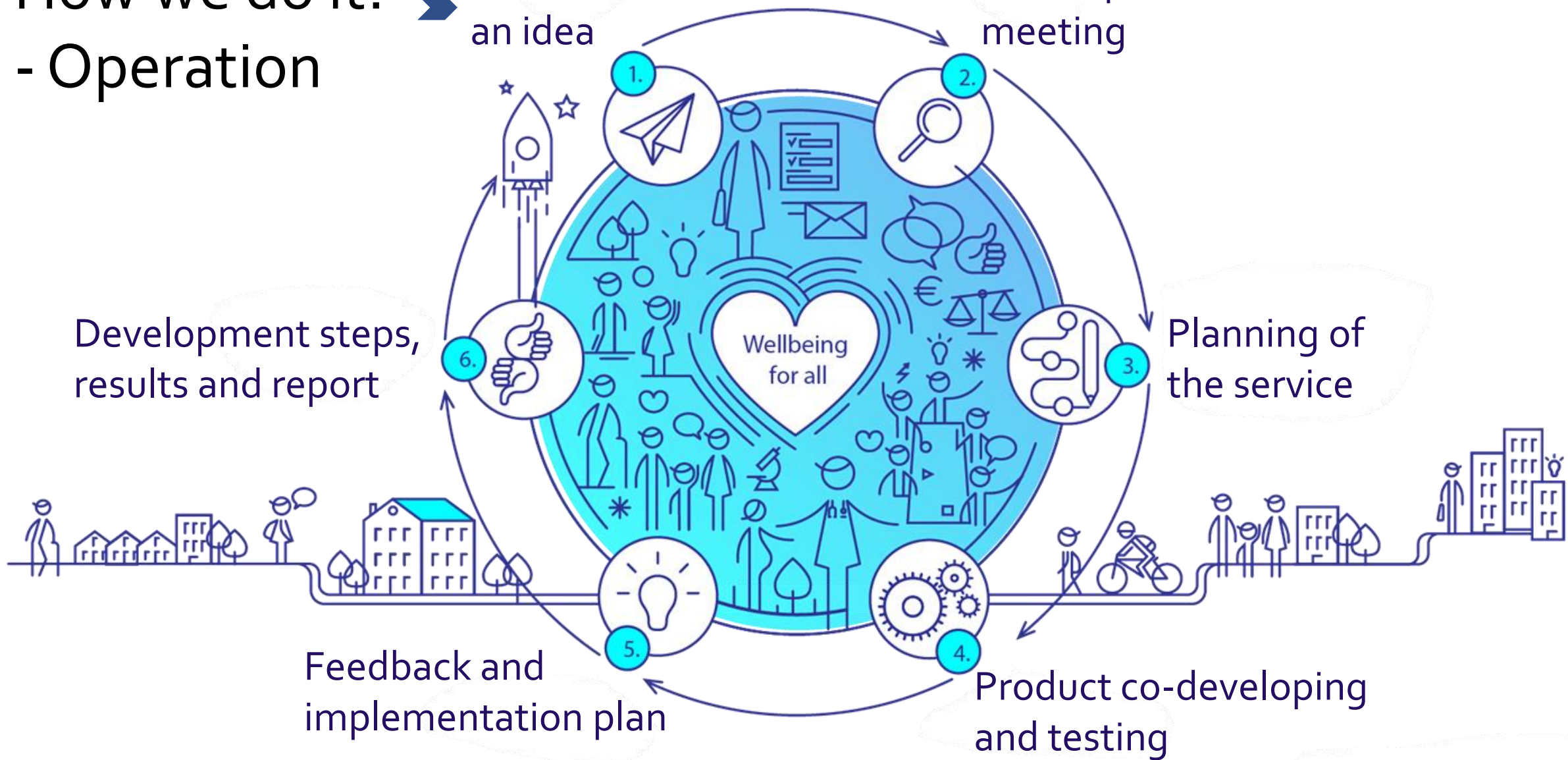
Development steps, results and report

Planning of the service

Feedback and implementation plan

Product co-developing and testing

Wellbeing for all

How we do it?
- funding

Kuopio Living Lab operation funding

1. All the stakeholders covers own costs, "money does not move"

2. Innovator / company covers city's costs based on needed services, for example used personnel workhours or data protection impact assessment costs

3. Testing / development is done within e.g. EU funded project

4. Strategic for city, city covers funding

5. Other funding, for example European digital innovation hub funding (Digital Europe program)

HealthHub Finland EDIH

Funding during Kuopio Living Lab operational model building

- City of Kuopio's own funding

- Partners funding (for example University of applied sciences, University hospital)

- Funding from programs like European regional development fund, European social fund, Horizon Europe

What do we exactly do?

applying for services   **creation of customership**   **providing the service**   **feedback**

	Customer	Need for Living Lab	Contact form	Contact from Living Lab	First meeting	Test plan and contract	Next meetings planning	User training	Testing / co-developing	Summary and feedback	Customer feedback survey

Customer – Living Lab interaction interface

Main Stage	Living Lab	Marketing channels & visibility with partners		Designated Living Lab person contacts customer	Details check and feasibility for Living Lab	Test plan overview and contract signing	Process finetuning and set start date with all stake-holders	Living Lab person acts as link between customer and real-life actors	Living Lab person coordinates steps with all stake-holders	Interviews with customer and other stake-holders about the process	Living Lab person contacts customer and evaluates further needs

Customer visibility limit

Back stage	Living Lab	Visibility, accessibility, networks, ecosystems & clear service promise	Contact forms handling, assigning cases and possible partners	Designated person coordinates customer's service path as whole	Living Lab person drafts test plan	Recruit necessary personnel, draft contract & check needed assessments	Arrange necessary facilities and partners	Coordinate training with personnel	Interim evaluations with customer and personnel	Reporting as per contract	After sales operations and service development by feedback

Support services: web pages, some, digital tools, legal services, physical facilities, information management

Partners: business development, regional ecosystems and knowledge clusters, universities, networks

Source: Customer-oriented service path. Case: Kuopio Living Lab, Päivi Tenhunen, 2021 (Thesis)

What do we exactly do?

Co-creation, co-development

Real world environments

Results / Impacts

Savilahti - Robot bus pilot

Driving ban does not apply to the robot bus

The robot bus pilot is a joint demonstration of capabilities by stakeholders in the Savilahti area and an excellent example of the expertise cluster's ability to adopt new innovations.

Luola — exceptional construction

A unique rock cave is under construction in the district of Savilahti and will hold a sports and event centre and a civil defence shelter. Known as Luola (the Cave in Finnish), the centre is expected to open to the public in late summer 2024.

Source: Kuopio by Nature 1/2024

KUOPIO WATER CLUSTER

Smart Water Solutions

Vision for the future: Smart City (Savilahti)

The unique testbed and demonstration site – combination of **lab-**, **pilot-** and **full-scale** facilities (water + wastewater + stormwater networks)

Savilahti area by 2030:
15 000 students
13 000 jobs
6 000 residents

Lab- & pilot-scale development

Scale-up

Demonstration Full-scale testing

1.5 km x 1.5 km

Next steps
Centre of Excellence for Comprehensive Security

- Cities need solutions to global security challenges

- Sustainable urban development solutions and pilots

- Supports the city's innovation-driven growth

Source: Kuopio by Nature 1/2024

Living Lab Concept is one step for a city towards smart and healthy society

Strategic level approach

Well-coordinated services

Open-minded governance

Solutions for the genuine need

Thank you!

arto.holopainen(at)kuopio.fi

Questions & Comments

slido
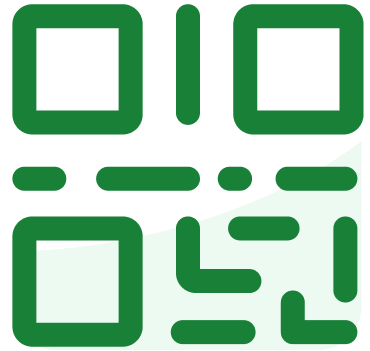
Join at slido.com
#2470140

ⓘ Start presenting to display the joining instructions on this slide.

What are your key 3 takeaways?

ⓘ Start presenting to display the poll results on this slide.

What's next for you?

15:00   **Study Visits**

19:30   **Dinner**

Thank you