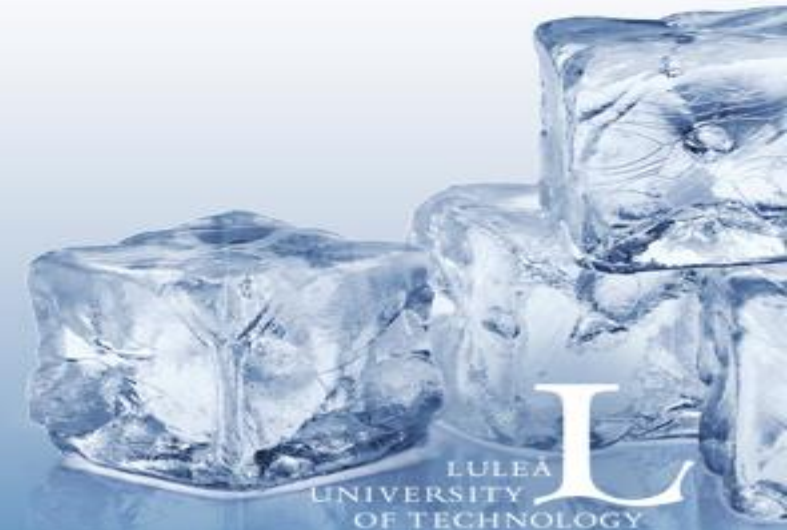
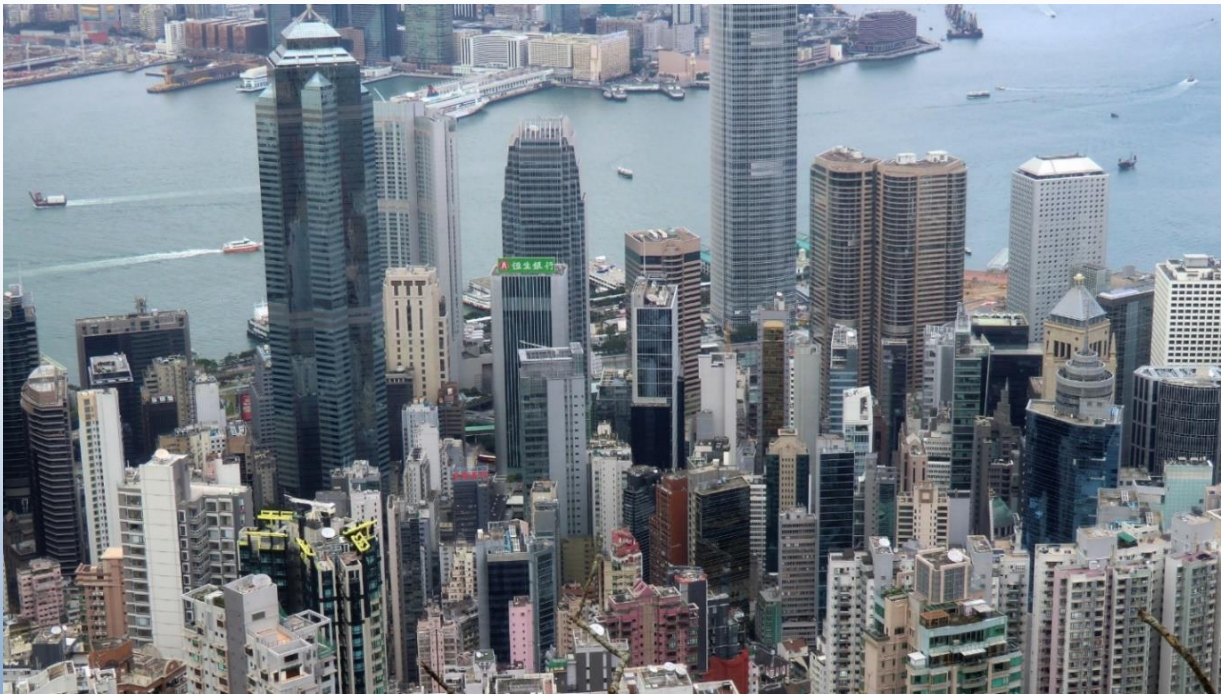


The power of co-design

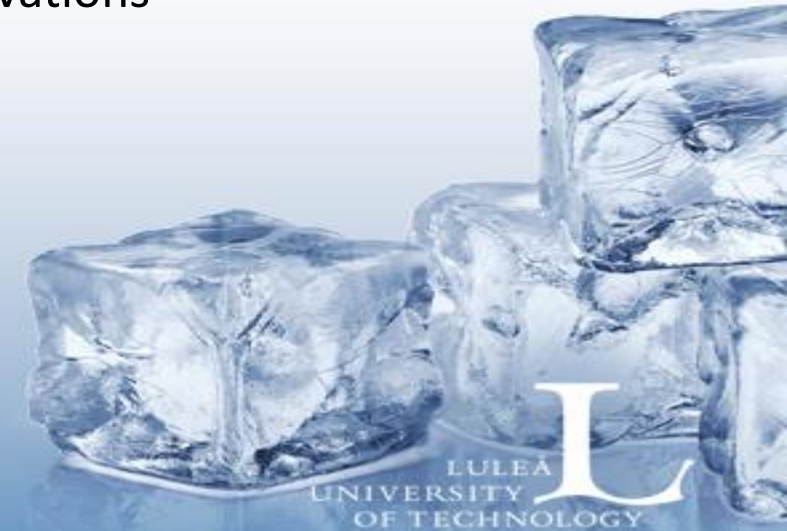


Human and innovation

Today 55% of the world's population lives in urban areas → 68% by 2050 (UN)



- Cities as **milieu for innovation** with citizens
- Large scale innovations (e.g., nature based solutions)
- Digital innovations
- Etc...



Why citizen perspective?

- User empowerment (decision making)
- Democracy (ethics)
- Adoption
- Success of the smart city solutions
- Sustainability



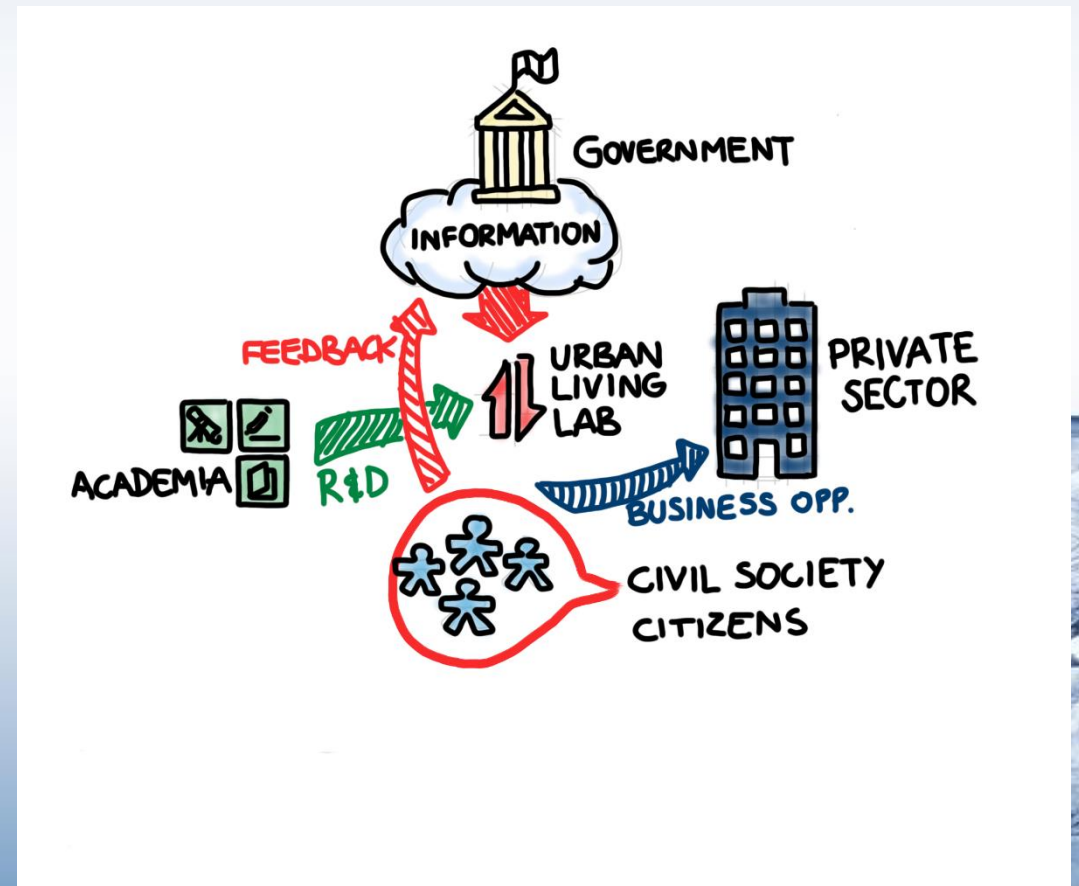
Common perspectives

- Citizens as **sensors/monitors**
- Citizens as **data/content providers** to city systems
- **No co-creation:** Citizen engagement in design processes is very rarely being reported on
- **Citizen needs not in focus:** Citizens needs not clearly described in development/innovation projects
- Mainly involved in **testing** of products and services; if even that
- **Users** of smart city solutions? **Citizens** or city **leaders**?

What is a Living Lab?

“A Living Lab is a **user-centric innovation** approach, based on **realistic** activities and research where all relevant **partners** are involved in **open processes**, to generate **sustainable values** for Living Lab partners and stakeholders”

(Bergvall-Kåreborn et al. 2009)



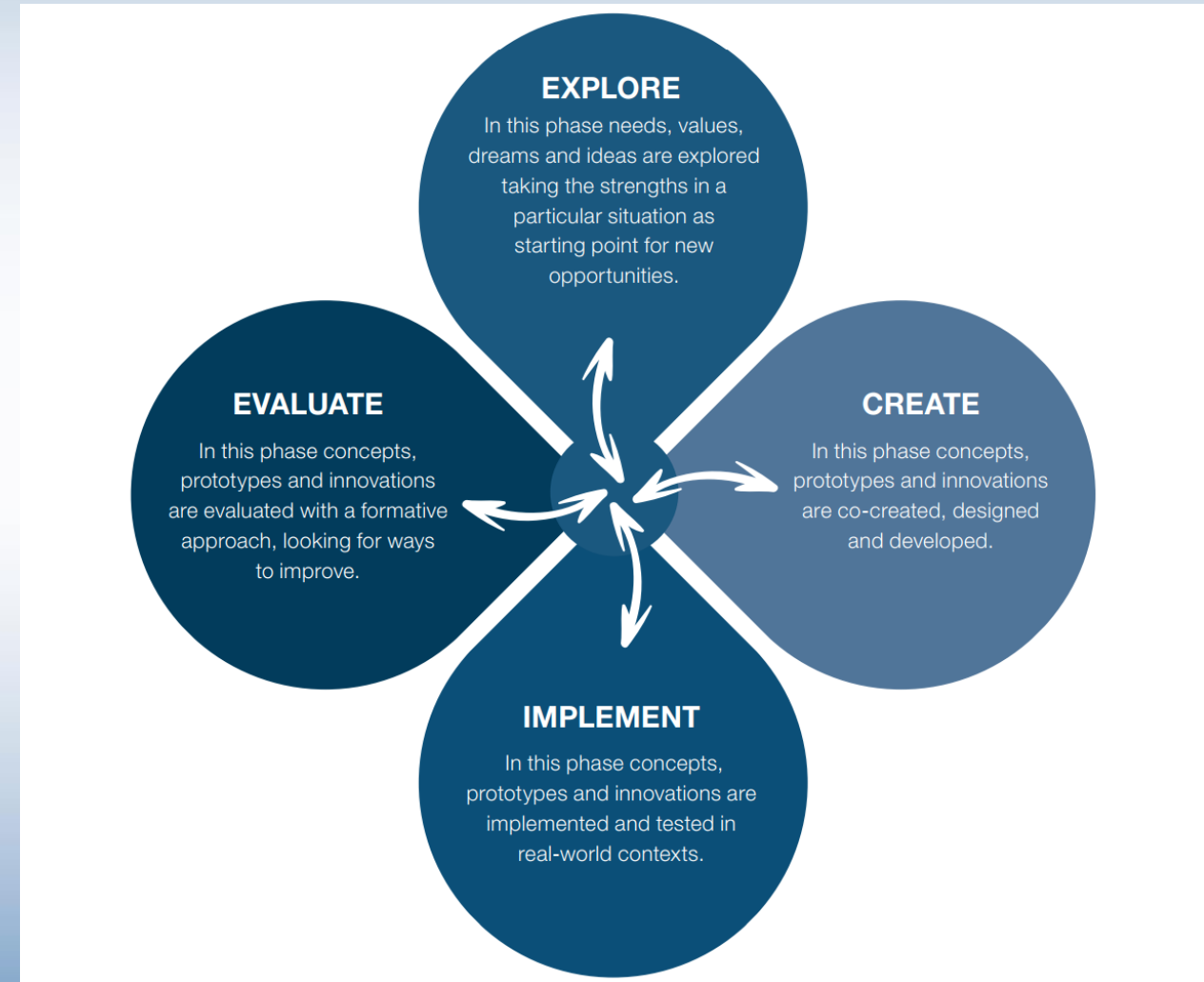
Example of Collaboration partners and customers of Botnia Living Lab

**BOTNIA
LIVING LAB**



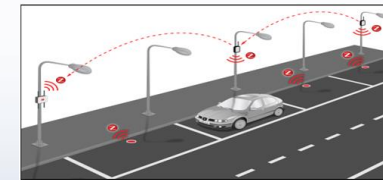
Theoretical Areas

- Open Innovation
- Socio-technical systems
- Design Thinking
- Participatory Design
- Innovation management
- Stakeholder Theory



From Living Labs to Urban Living Labs

- Climate change
- Urban complexity
- Societal challenges
- Citizens quality of life
- Fostering the innovation development
- Make urban areas more adaptable to the citizens need



What an Urban Living Lab is NOT?

**BOTNIA
LIVING LAB**

An ULL doesn't necessarily need a **building** or a **physical place**

environment for **sharing knowledge** not provided

Multi phases (not **testbed**)

multi-stakeholder engagement is not supported

innovation not **co-created** with various stakeholders and citizens

social and **technical** aspects of innovation development not integrated

innovation is not being designed, developed and tested in **real-life context**

citizens are not **actively engaged** from early stage of innovation development

Adoption barriers in smart cities: a user perspective

Adoption barrier		
The complexity of services	Cost Efficiency and Feasibility	Price / cost
Lack of accessibility	Usability	Personal integrity
Lack of mutual trust	Compatibility	Lack of information/publicity
Awareness	Functionality	Lack of awareness
Safety concerns	Relative advantage (ROI)	Required soft skills
Inappropriate communication	Integration and interoperability	Ethical concerns
Social acceptance	Data accuracy, quality	Privacy & Security



Use of Urban Living Lab in Smart City Project

Front-runner Cities



Tampere

Finland



Eindhoven

The Netherlands



Genova

Italy



LIVING LAB HANDBOOK
FOR URBAN LIVING
LABS DEVELOPING
NATURE-BASED
SOLUTIONS



UNaLab project partners

BOTNIA
LIVING LAB



UNaLab in a nutshell (UNaLab.eu)

UNaLab's 3 front runner cities: **Tampere**, **Eindhoven** and **Genova**, have a track record in smart and citizen driven solutions for **sustainable development**.



They support 7 follower cities: **Stavanger**, **Prague**, **Castellon**, **Cannes**, **Basaksehir**, **Hong Kong** and **Buenos Aires** plus share experiences with observers as City of **Guangzhou** and the **Brazilian network of Smart Cities**.



Thanks for listening



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