Smart UP BSR Innovation Camp

Professor Taina Tukiainen, Smart Up lead

BSR Innovation Camp, Aalto

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FINLAND – THE GLOBAL INNOVATION ACCELERATOR

1st in the Europe 2020 Competitiveness Index

The most innovative and highly educated country in the world (The World Economic Forum, Global Competitiveness Report 2014–2015)

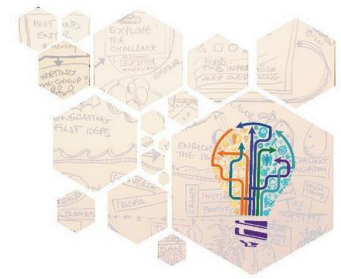**The most digital** startups per capita in the world

The world's greenest country (2016 Environmental Performance Index)

The best primary education system in the world

Espoo Innovation Garden

Smart-Up in Nutshell

- **Dynamic, entrepreneurial & engaging**

- **BSR RIS3 implementation four spearheads: healthy ageing, digital smart city, climate change and circular economy**

- *Allows regions* **to learn hands-on and build solutions via innovation camps**

- *Foster* **BSR bottom-up innovation and experimentation**

- *Mobilizes existing knowledge, expertise, and showcases best practices in the area of smart specialisation*

- *Activates Baltic Sea region network around important societal challenges*

- *Regions in 9 countries of the Baltic Sea Area, 13 partners, 26 associate partners, including DG JRC & DG REGIO, UN SDG Cities 25+5*

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https://smartup-bsr.eu

European Commission

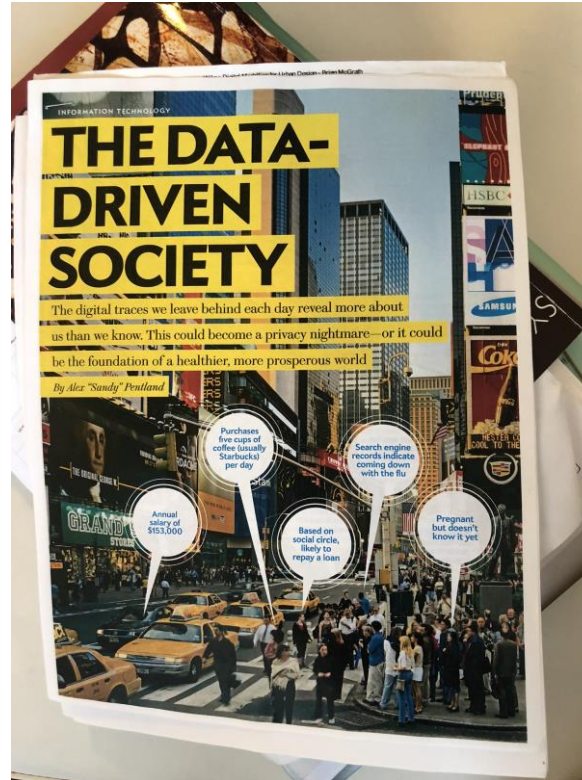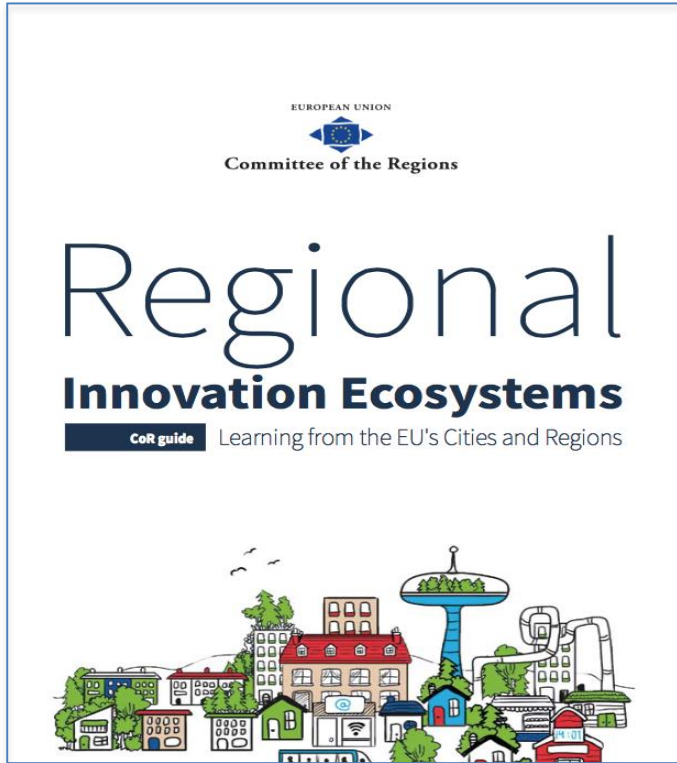# Objective: Smart Up BSR as a community for change

- Smart Up as a **community for RIS3 inter-regional engagement in Baltic Sea**

- and activating **cross-regional networks to solve grand societal challenges**

- **Innovation camps: a pilot of a 3-year long cross-regional engagement process with quadruple helix stakeholders**

- Innovation camp method – **a capacity building for regional innovation and RIS3 implementation**

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SDG Cities

Sustainable & Smart BSR 2030
Evidence informed policy & decision-making

EUROPEAN UNION
Committee of the Regions

Regional
Innovation Ecosystems
CoR guide | Learning from the EU's Cities and Regions

INFORMATION TECHNOLOGY

THE DATA-DRIVEN SOCIETY

The digital traces we leave behind each day reveal more about us than we know. This could become a privacy nightmare—or it could be the foundation of a healthier, more prosperous world

By Alex "Sandy" Pentland

Purchases five cups of coffee (usually Starbucks) per day

Search engine records indicate coming down with the flu

Annual salary of $153,000

Based on social circle, likely to repay a loan

Pregnant but doesn't know it yet

"The new normal of cities is about perceiving people, their skills, motivations and capability for collaboration as the most resilient resource a city has."

Smart-Up BSR Key Challenges

1. **Boost inclusive regional stakeholder engagement**: How do we make the development of our regions inclusive? How do we engage diverse stakeholder in Baltic Sea Region?

2. **Engage BSR Inter-regional collaboration**: How to engage and collaborate across regional borders in Baltic Sea regions? How to create and develop the spearhead initiatives together in the macro-region?

3. **Boost Entrepreneurship & entrepreneurial discovery process:** How to boost entrepreneurship and start-ups in BSR? How does the entrepreneurial discovery process create value in BSR?

4. **Save Baltic Sea and tackle grand societal challenges:** How to tackle grand societal challenges like climate change, circular economy, and healthy ageing via smart specialization in BSR? How to attract relevant businesses inclusively?

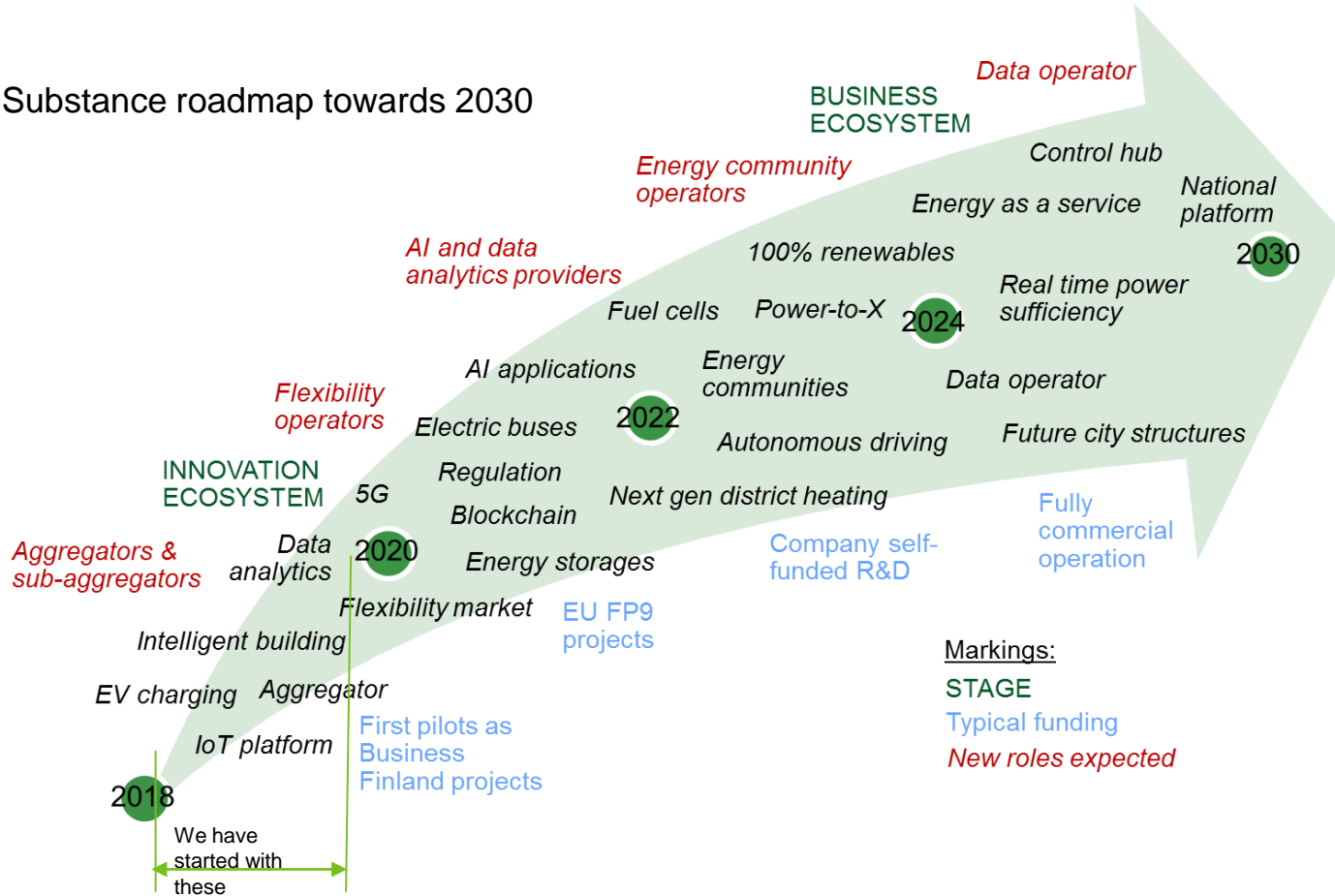**A!** Aalto University
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Smart Otaniemi: Finland opens the doors for re-discover energy

Cold climate, dark seasons, long distances and energy-intensive industry set ambition for clean energy system and **to rethink and re-discover energy systems.**

> **Finland has excellence in energy field research as well as 5G and IoT studies. 5G connectivity, artificial intelligence and IoT applications are already used in Finland's energy systems.**
>
> - Innovative transmission and distribution system operators, advanced regulation and market frameworks.

> **Possibilities to test new business models and services in real circumstances.**
>
> - Digitalization in energy is easily said than done.

> **More sandboxes and playgrounds needed where energy utilities, ICT sector, building and transportation operators and service providers can co-create and test new services together with the citizens.**

> Currently 50 partners: ICT and energy utilities, service providers, technology vendors and real estate owners.

Vision and Smart Otaniemi Roadmap

Substance roadmap towards 2030

Data operator

BUSINESS ECOSYSTEM

Energy community operators

Control hub

Energy as a service

National platform

AI and data analytics providers

100% renewables

2030

Fuel cells   Power-to-X   2024   Real time power sufficiency

AI applications   Energy communities   Data operator

Flexibility operators

Electric buses   2022   Future city structures

INNOVATION ECOSYSTEM   Regulation   Autonomous driving

5G   Blockchain   Next gen district heating   Fully commercial operation

Aggregators & sub-aggregators   Data analytics   2020   Energy storages   Company self-funded R&D

Flexibility market   EU FP9 projects

Intelligent building

EV charging   Aggregator   Markings:

IoT platform   First pilots as Business Finland projects   STAGE   Typical funding   *New roles expected*

2018

We have started with these

For the Discussion:
Societal Challenges are Complex, Require Responses by Many Policy and Knowledge Disciplines

- *To solve the grand challenges facing society — energy, water, climate, food, health — scientists, industry, citizens and politicians must work together.*

Interreg
Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Smart-up BSR

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