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Senior Researcher, DTU Compute

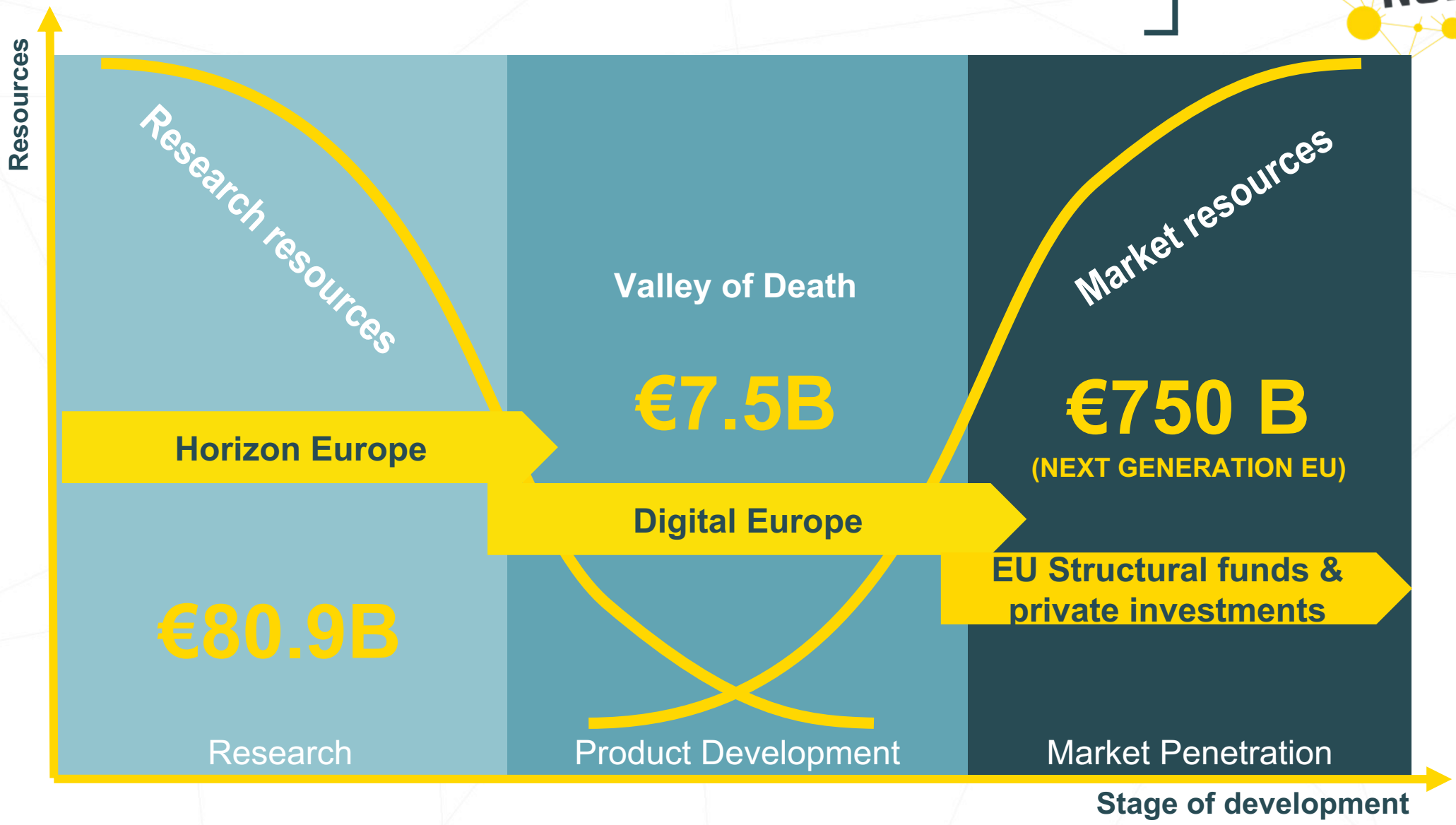
Founding Director, Open & Agile Smart Cities (OASC)

Coordinator, CitCom.ai (TEF), DS4SSCC (Data Space), CommuniCity (AI)
Chair, Living-in.EU Tech & Co-chair UN U4SSC City Platforms
Co-chair European “Local Digital Twins” Task Group
Chair, Danish Standards Committee on SSCC (ISO/TC 268, ITU/SG 20)

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ROLE OF HORIZON EUROPE AND DIGITAL EUROPE



Points to note

- Data spaces, including Energy, are regulated from EU.
- Demand-side interoperability and cross-sectorial interactions are regulated from EU.
- Forecasting demand (long-term and mid-term) is difficult.
- **Interoperable Europe Act** and related regulation is central.
- Minimal Interoperability Mechanisms (MIMs) are a way of de-risking investments and securing demand.
- DTU leads y.MIM (UN ITU-T/SG 20) and **Flexibility Functions**
- DTU co-leads EU Task Group on Local Digital Twins (with ICLEI)
- DTU leads large-scale pilots in data, digital twins and AI linked to **cross-sectorial demand forecasting and orchestration**.

Digital Europe – Data Economy

Phase 1 (22 Feb 2022)

Phase 2 (Q2 2022)

Phase 3 (Q1 2023)

Phase 4 (Q2 2023)

SMART & SUSTAINABLE CITIES

Go Li.EU
Living-in.EU Governance
CSA (2m€)

DS4SSCC – Data Space for
Smart Communities (prep)
CSA (1m€)

EDIH
European Digital Innovation Hubs
CSA (2-4x 5m€)

#1 LDT Toolbox Tech
Specs (2m€/3 mo)

#2 LDT conformance
7,5m€

Citiverse
#3 Advancing Digital
Transformation in SCC (24m€)

AI on-demand platform (28m€)

Data Space for Smart Communities
Deployment action (18m€ + 18m€)

CitCom.ai
AI Testing & Experimentation Facility for SCC
Deployment action (20m€ + 20m€)

- 4 TEFs: 220m€
- Manufacturing
 - Agrifood
 - Health
 - Smart Cities & Communities

Interoperable
Europe
Act



Centrale projekter (udvalg)

CitCom.ai (40m€/5 år – **DEP**)

- **AI & Robotics Testing and Experimentation Facility (TEF) for Smart and Sustainable Cities and Communities – TEF DK is for all Danish stakeholders**

DS4SSCC (1m€/1 år – **DEP**)

- Data Space for Smart and Sustainable Cities and Communities blueprint – next step is deployment

Go Li.EU (2m€/4 år – **DEP**)

- Secretariat for Living-in.EU – all municipalities and regions in Europe

CommuniCity (5m€/3 år – **HEU**)

- 100 AI-pilots – open calls, including for for Danish stakeholders

DESIRE (5m€/2 år – **HEU**)

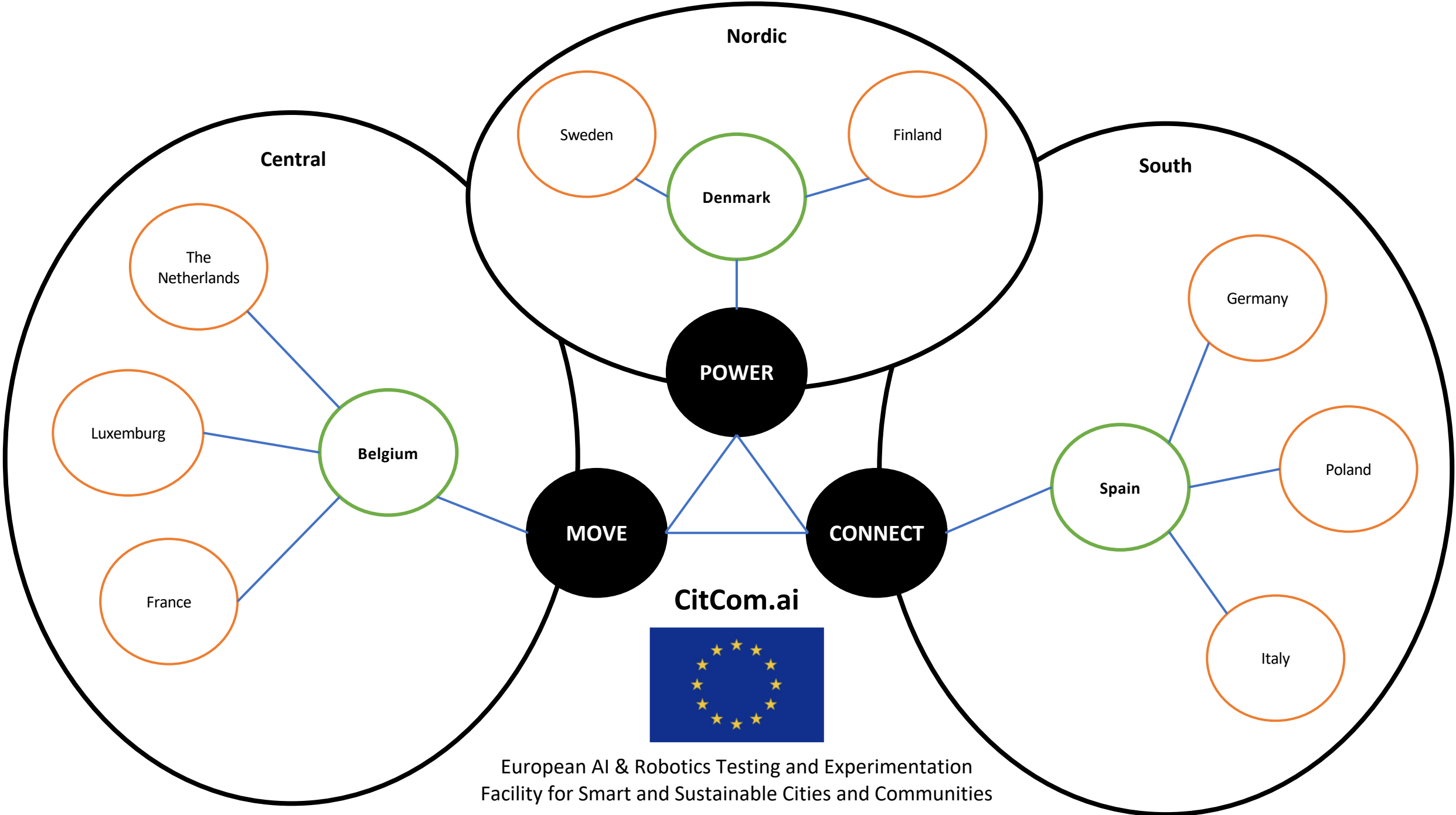
- Designing the Irresistible Circular Society – New European Bauhaus lighthouse

NetZeroCities (53m€/4 år – **HEU**)

- Supporting the EU Mission on Climate-Neutral and Smart Cities



CitCom.ai – AI & Robotics TEF for Smart & Sustainable Cities & Communities



European AI & Robotics Testing and Experimentation Facility for Smart and Sustainable Cities and Communities

Anvendelse

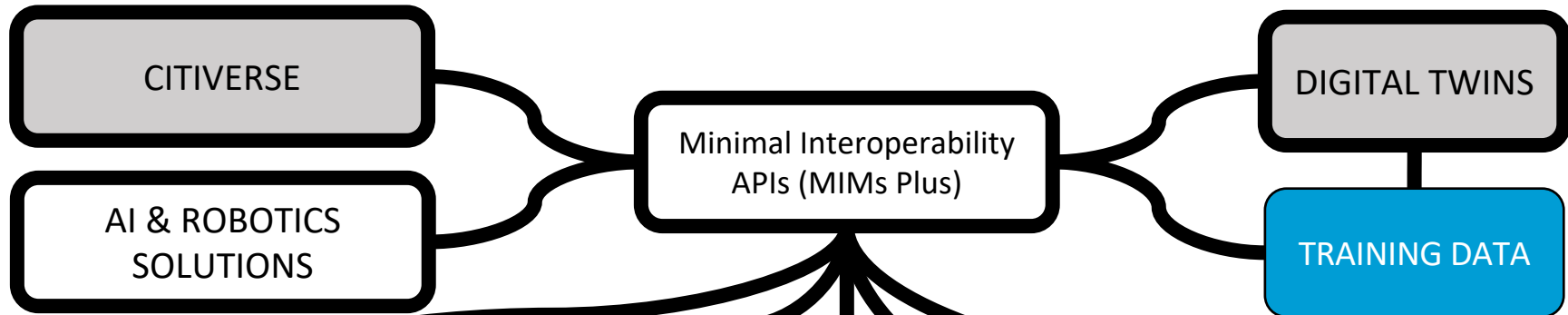


Platforme

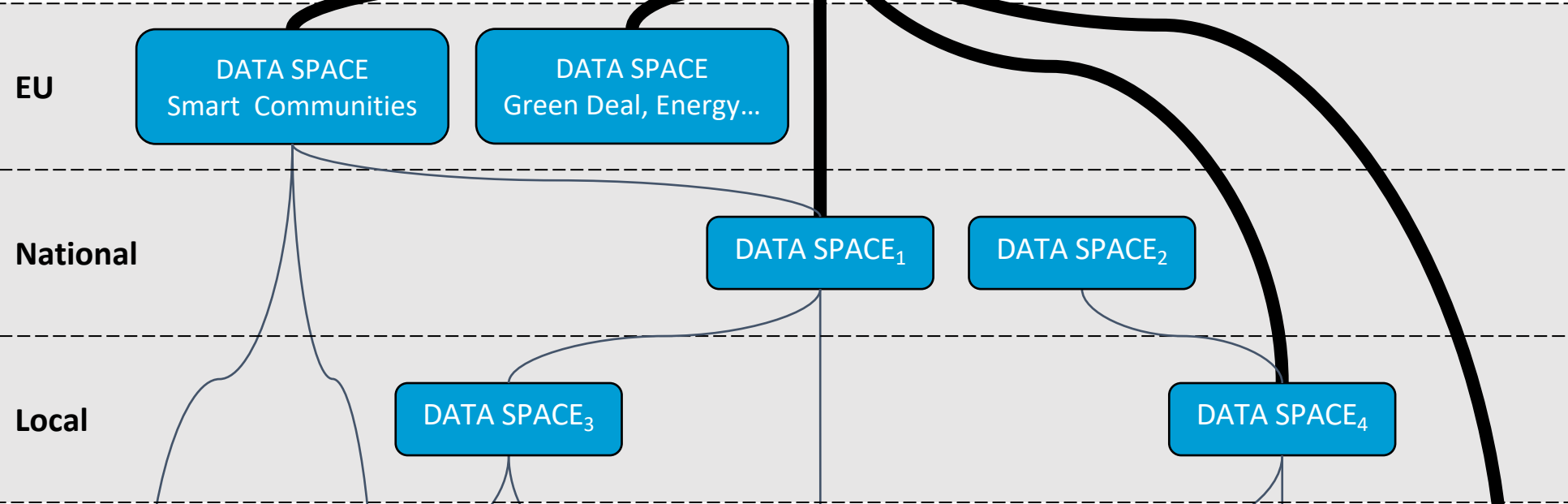


Data

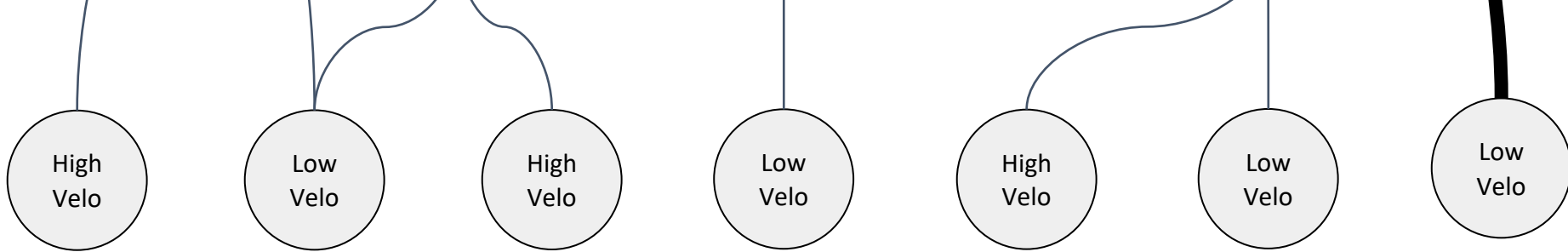
CitCom.ai TEF



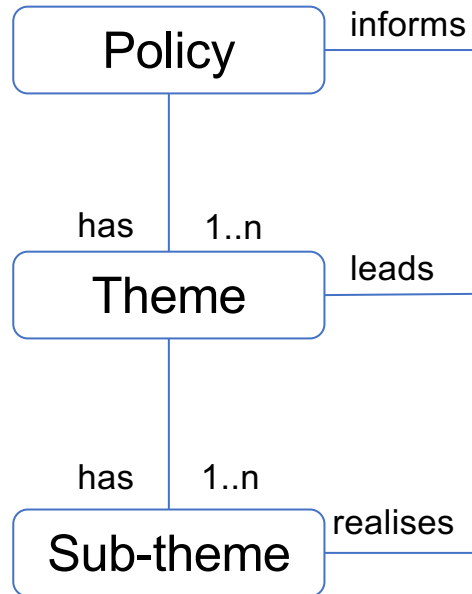
Data spaces



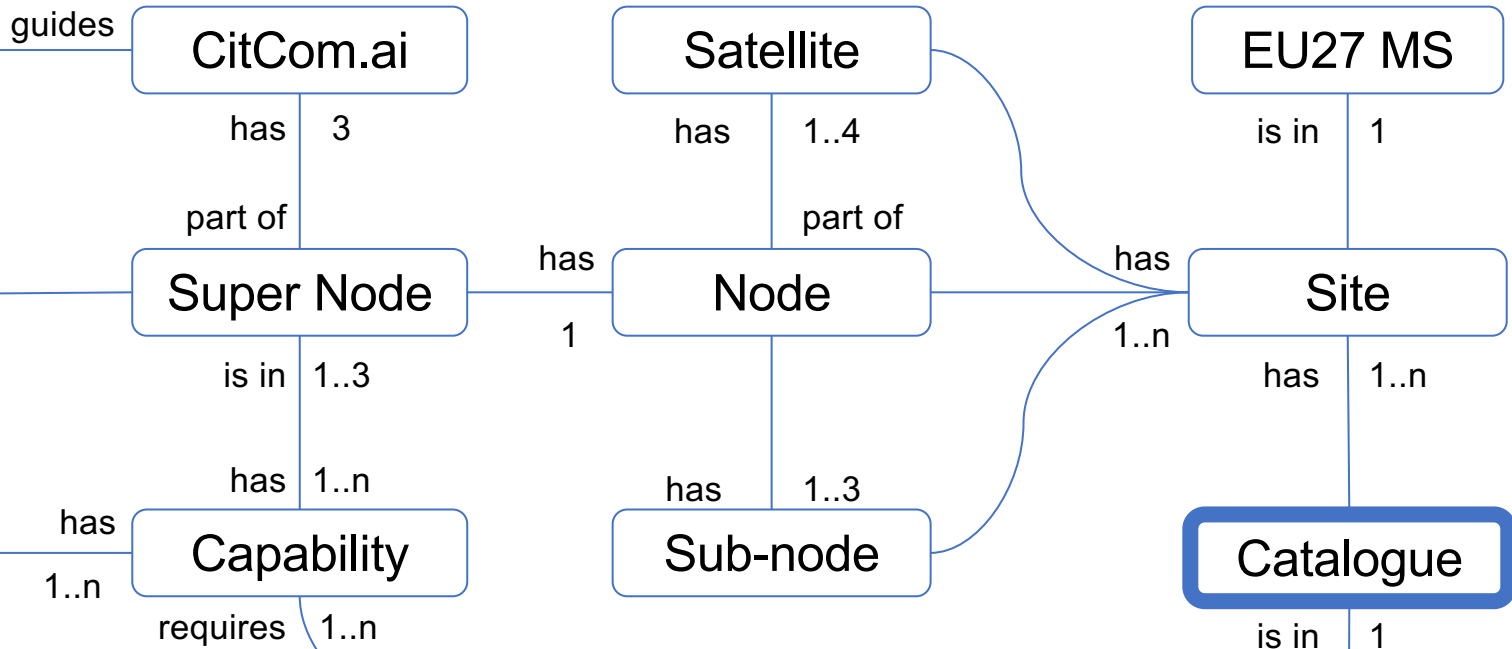
Data platforms



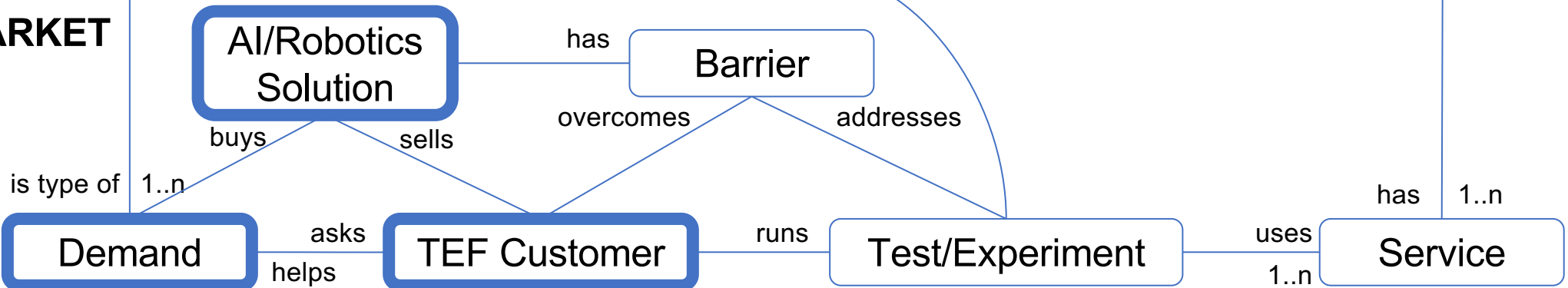
SOCIETAL NEEDS



TESTING AND EXPERIMENTATION FACILITY



MARKET



Anything is possible

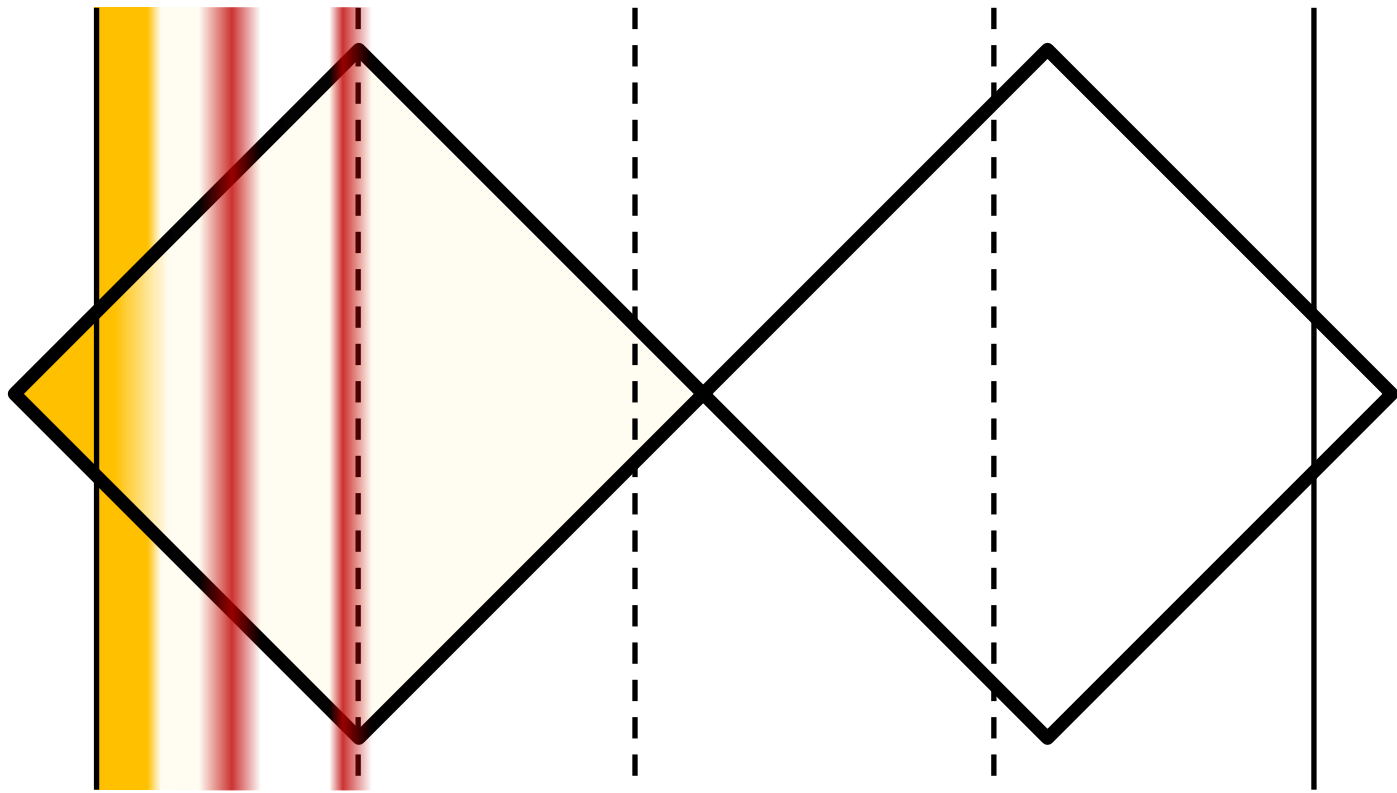
Anything?

Objectives of CitCom.ai

- Increase the development and uptake of EU AI and robotics innovations in smart cities and communities
- Make more data available to AI and robotics innovation
- Allow for sustainable, inclusive and beautiful innovation in cities and communities
- Support the EU data economy
- Contribute towards a just and clean urban transition
- Make sure the EU data economy functions according to EU values

CO-FINANCING
(SUBSIDY)

INCOME
(COMMERCIAL)



0

12

24

42

60

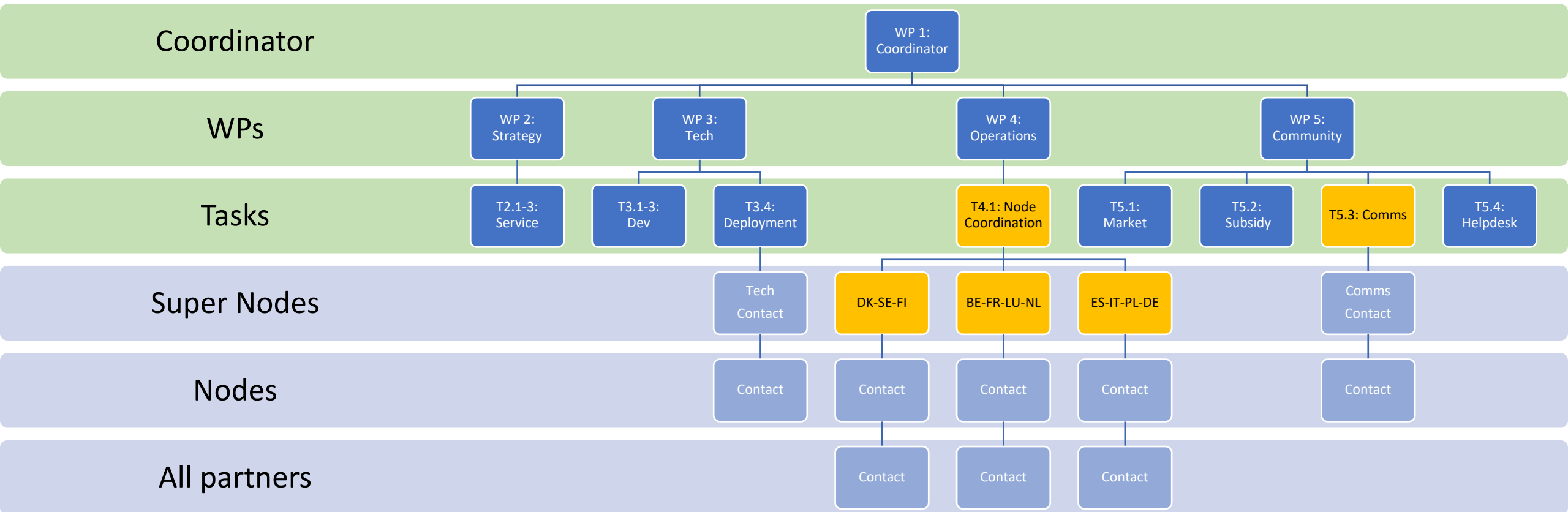
BUILD-UP

VALIDATE

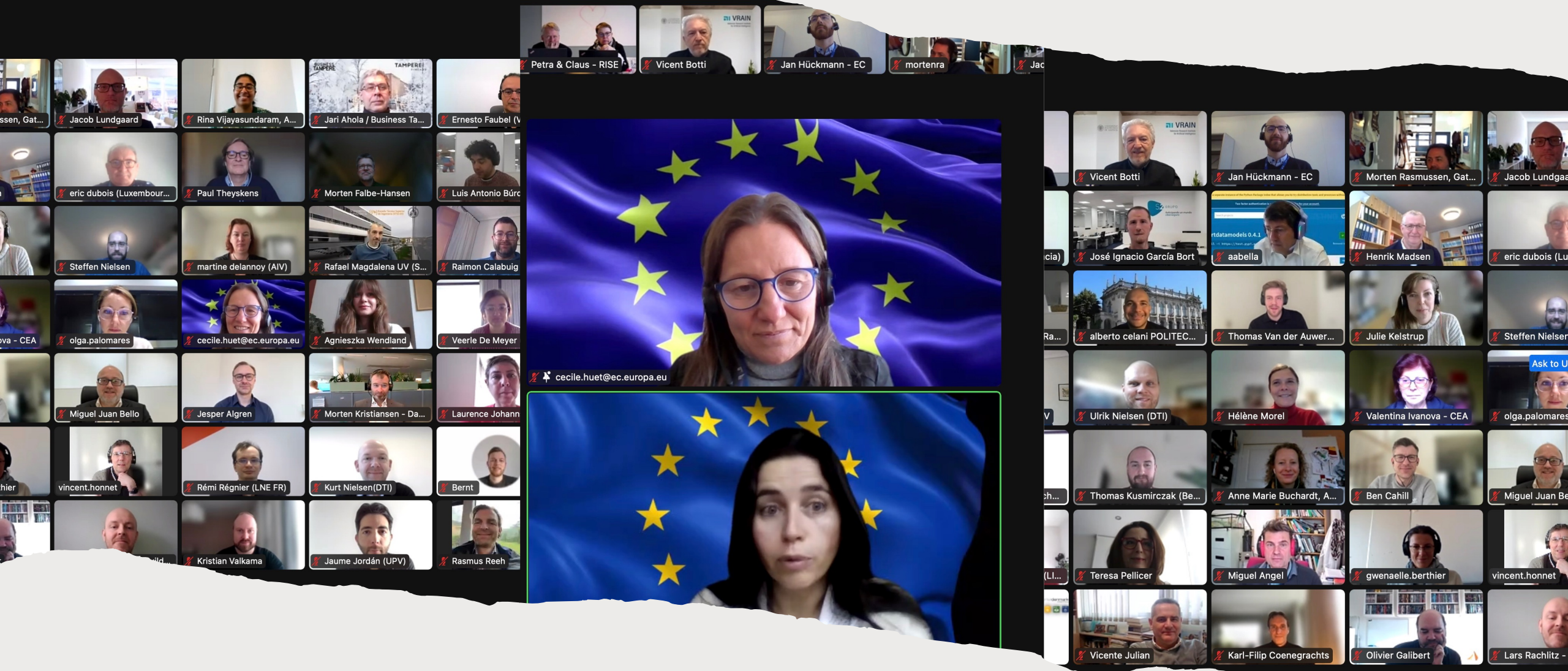
SCALE

TRANSITION

Management structure CitCom.ai



155 Persons
70 Full-Time Equivalents



Who?

WP 1



What?

WP 2



DATA SPACE FOR
SMART AND SUSTAINABLE
CITIES AND COMMUNITIES

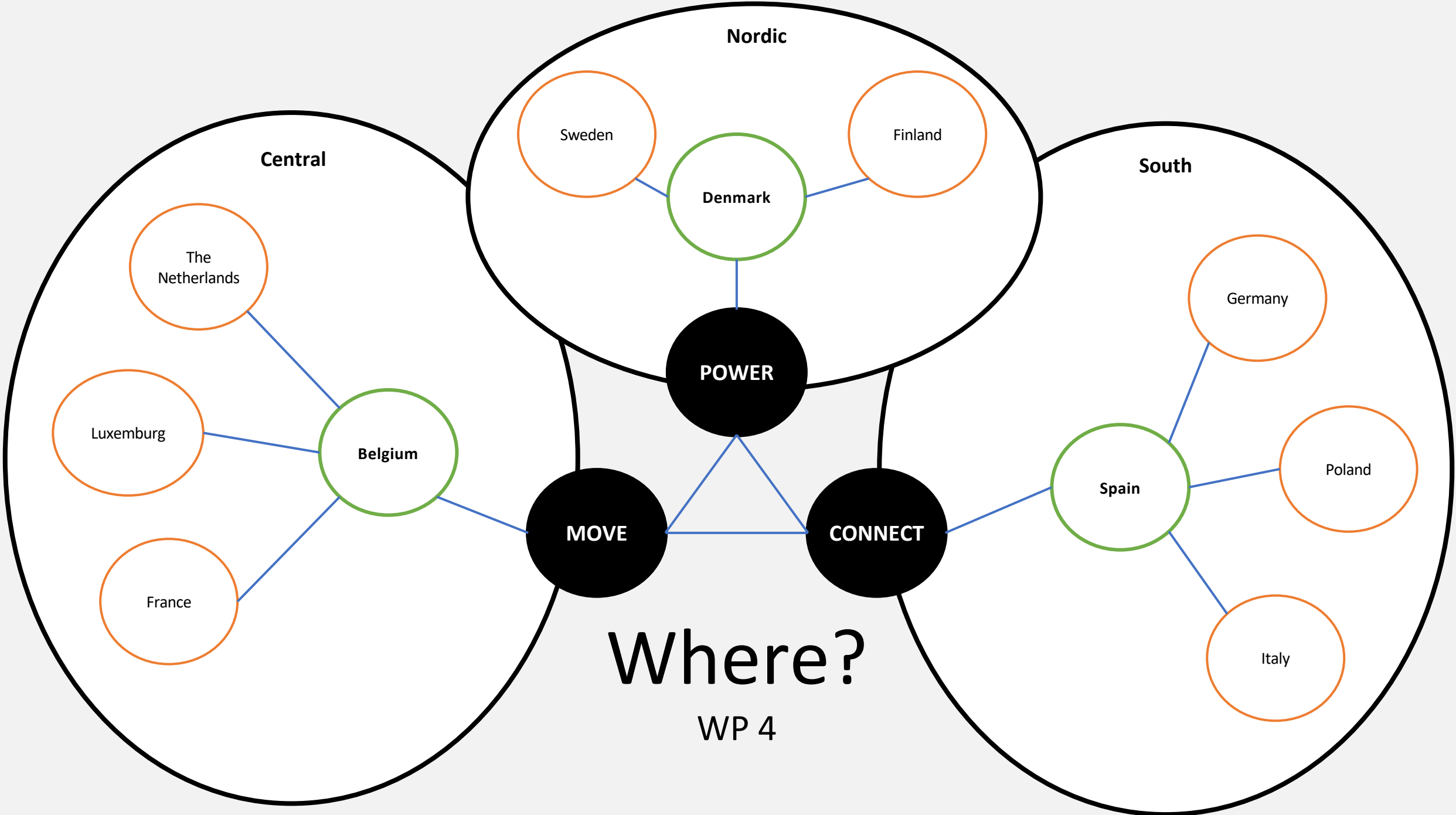


LIVING-IN.EU

How?

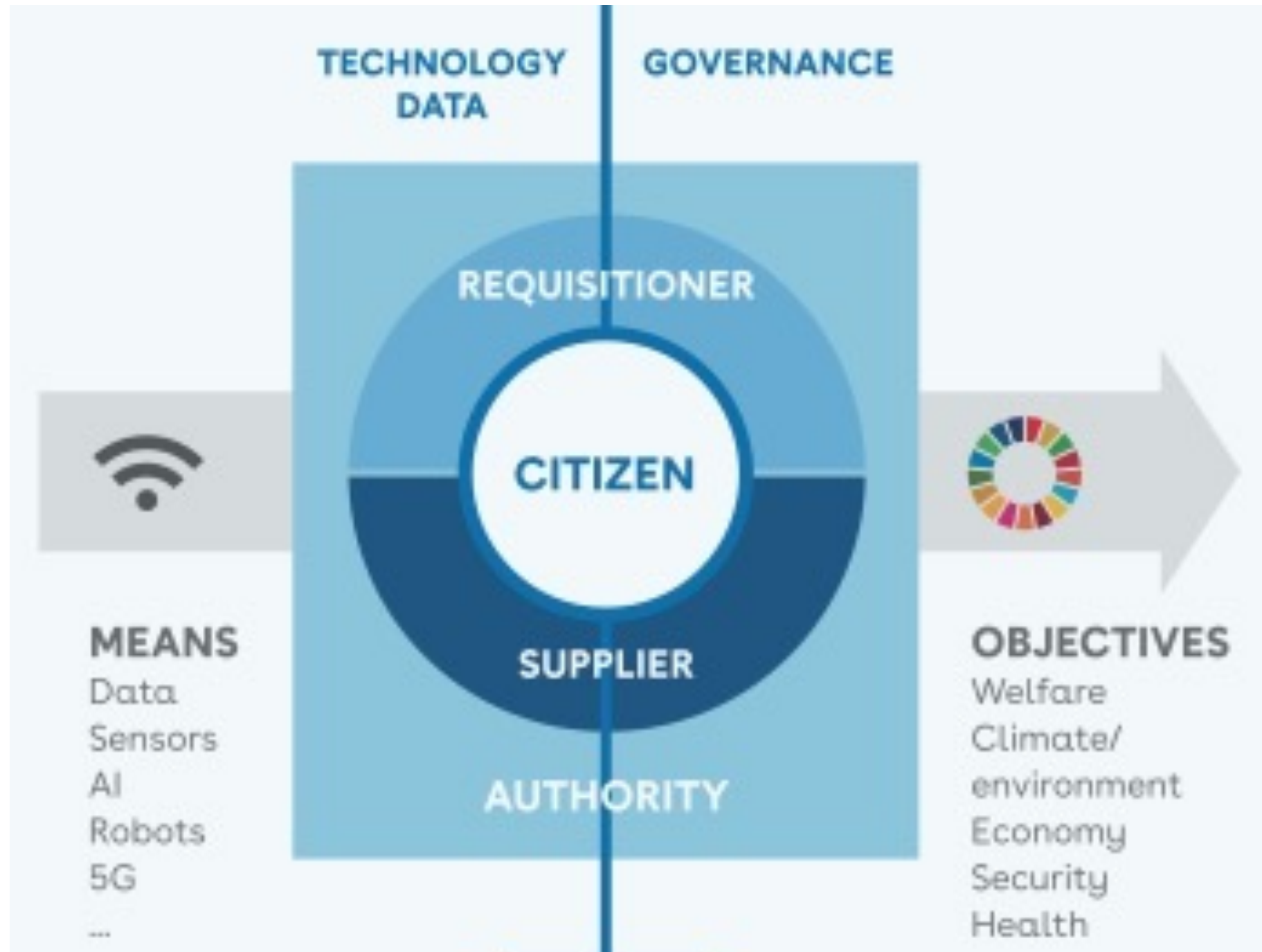
WP 3

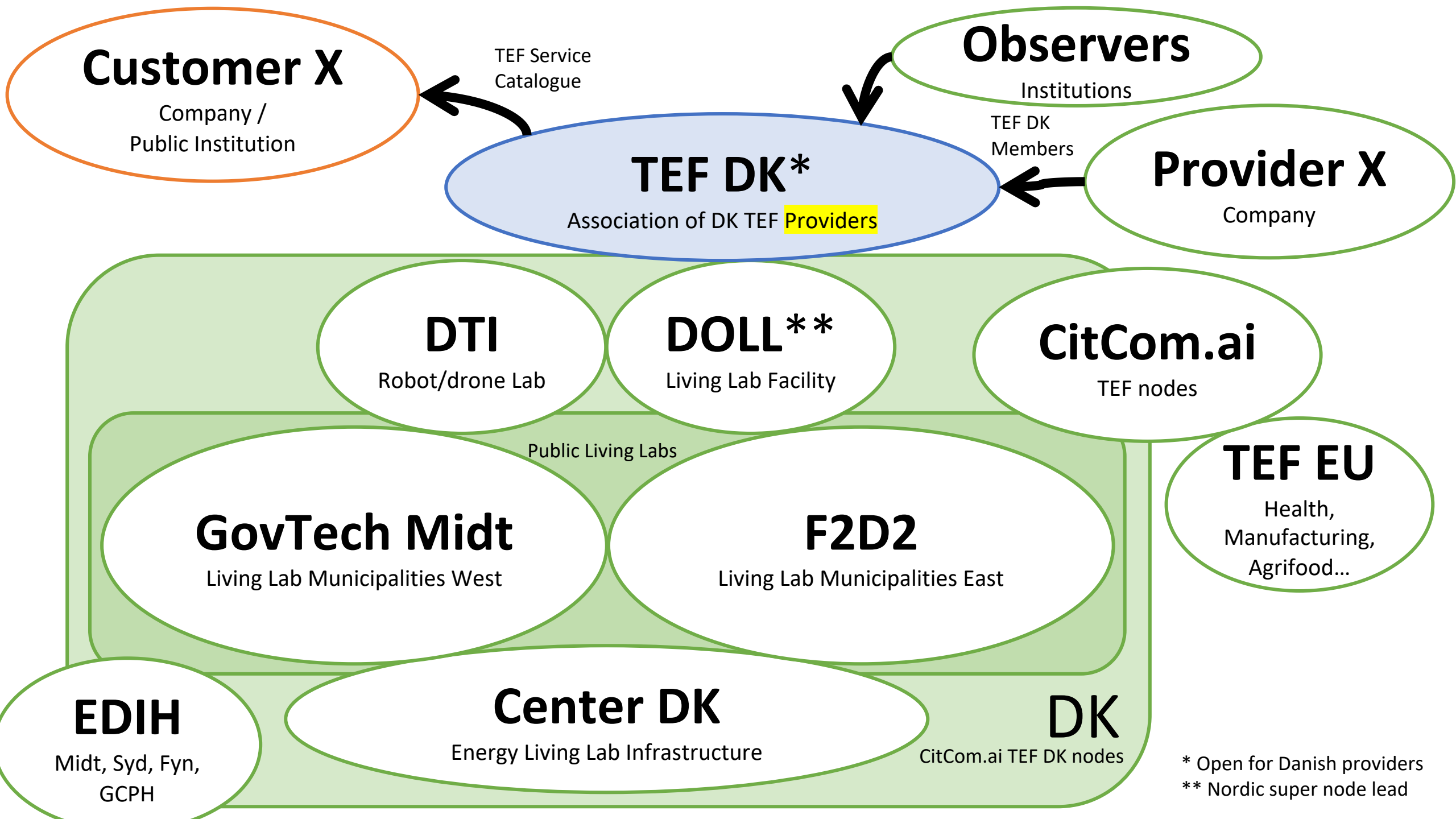




For whom?

WP 5





Barriers

1. Data scarcity
2. Lack of real-world confirmatory datasets
3. Regulatory burdens
4. Risk aversion attitude towards (personal) data sharing
5. Risk aversion inhibiting data sharing and technology investments
6. Lack of abilities to train algorithms by organisations
7. Insufficient harmonization of data
8. Faster uptake of new AI technologies into future cities and communities products

Barriers – data

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Barriers – data – why

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Barriers – data – why – opportunities

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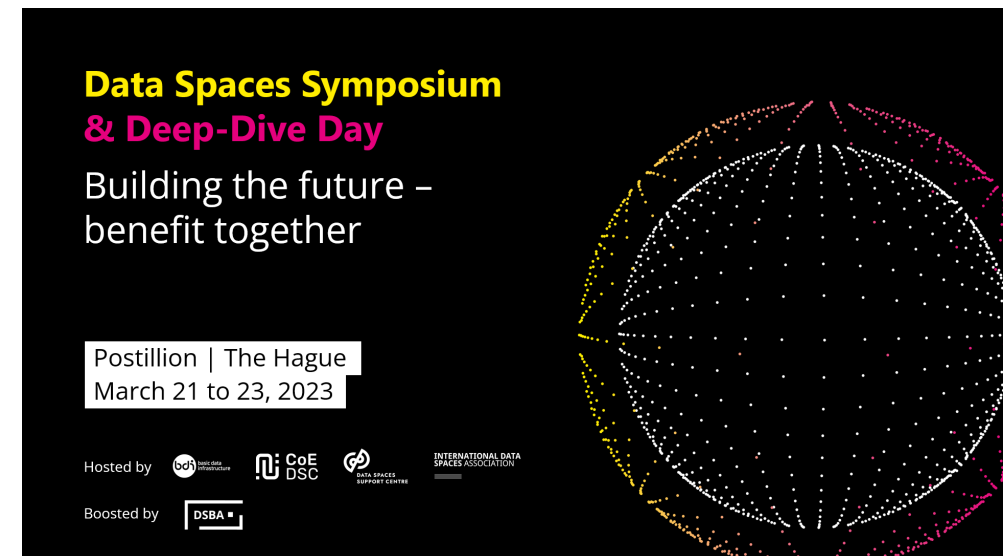
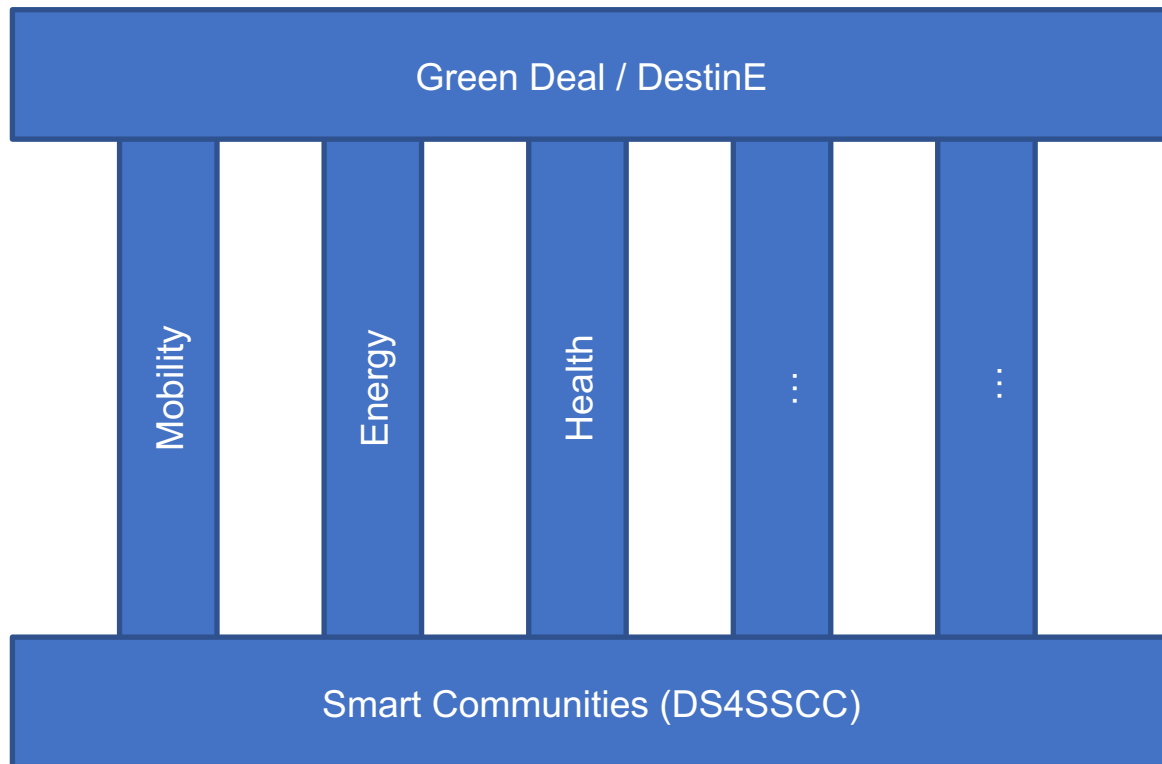
AI Robotics Data

and stuff...

TEF DK

- Non-profit forening for danske udbydere af test og forsøg (TEF)
- Kobling mellem TEF og missioner, både udbud (virksomheder) og efterspørgsel (kommuner)
- Stærk kobling til EU policy, inkl.
 - Data Spaces
 - Digital Twins/bymodeller/bevægelsesdata
 - **EDIHs/European Digital Innovation Hubs**
 - **Interoperable Europe Act**
- Synergi med missioner, regionalfondsmidler, NextGenerationEU
- DI er lead og sekretariat
- Stiftende generalforsamling medio juni
- **Launch 27. juni 2023 i København**

To slags data spaces: Sector / Cross-sector





DATA SPACE FOR
SMART AND SUSTAINABLE
CITIES AND COMMUNITIES



LIVING-IN.EU

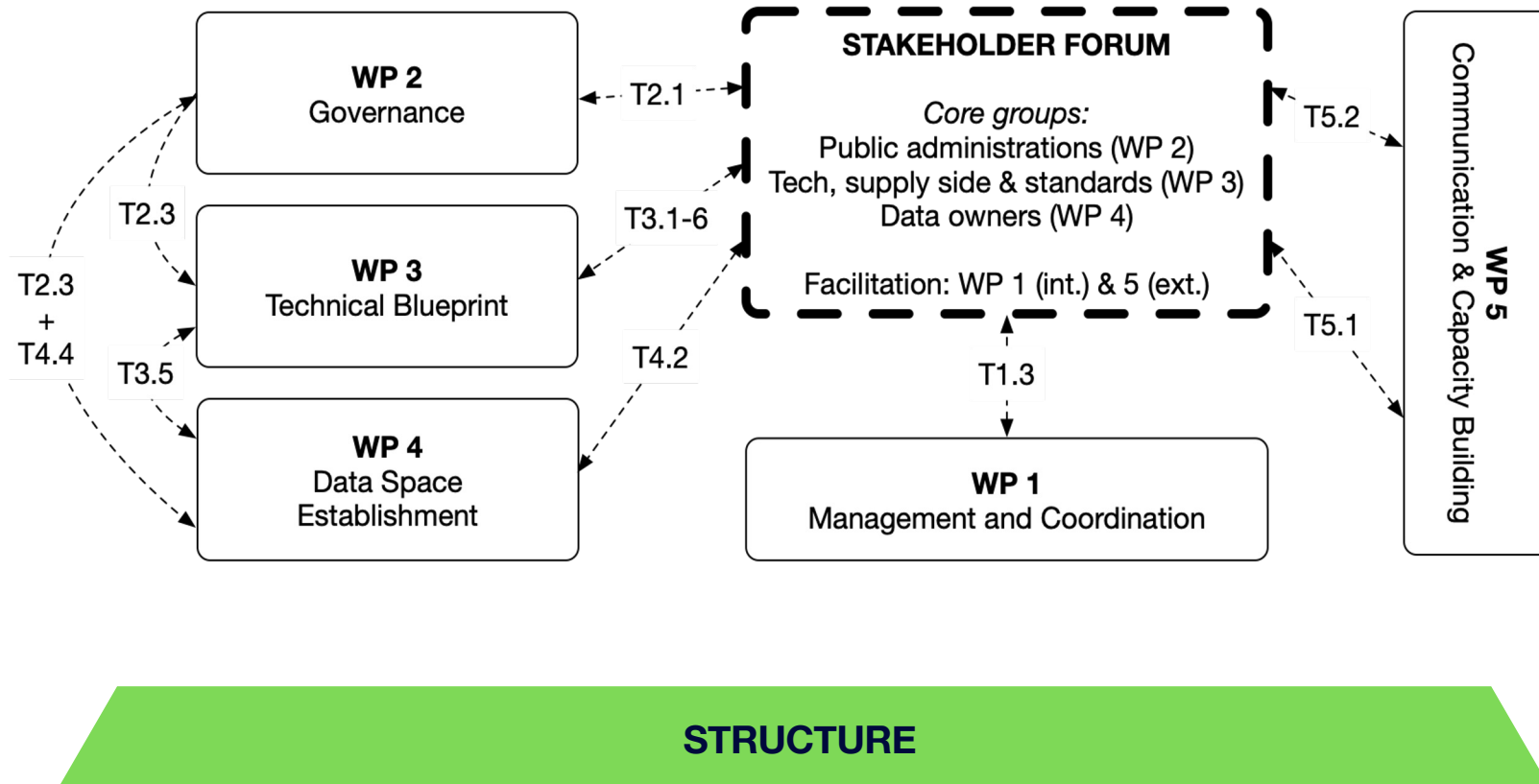


Funded by
the European Union



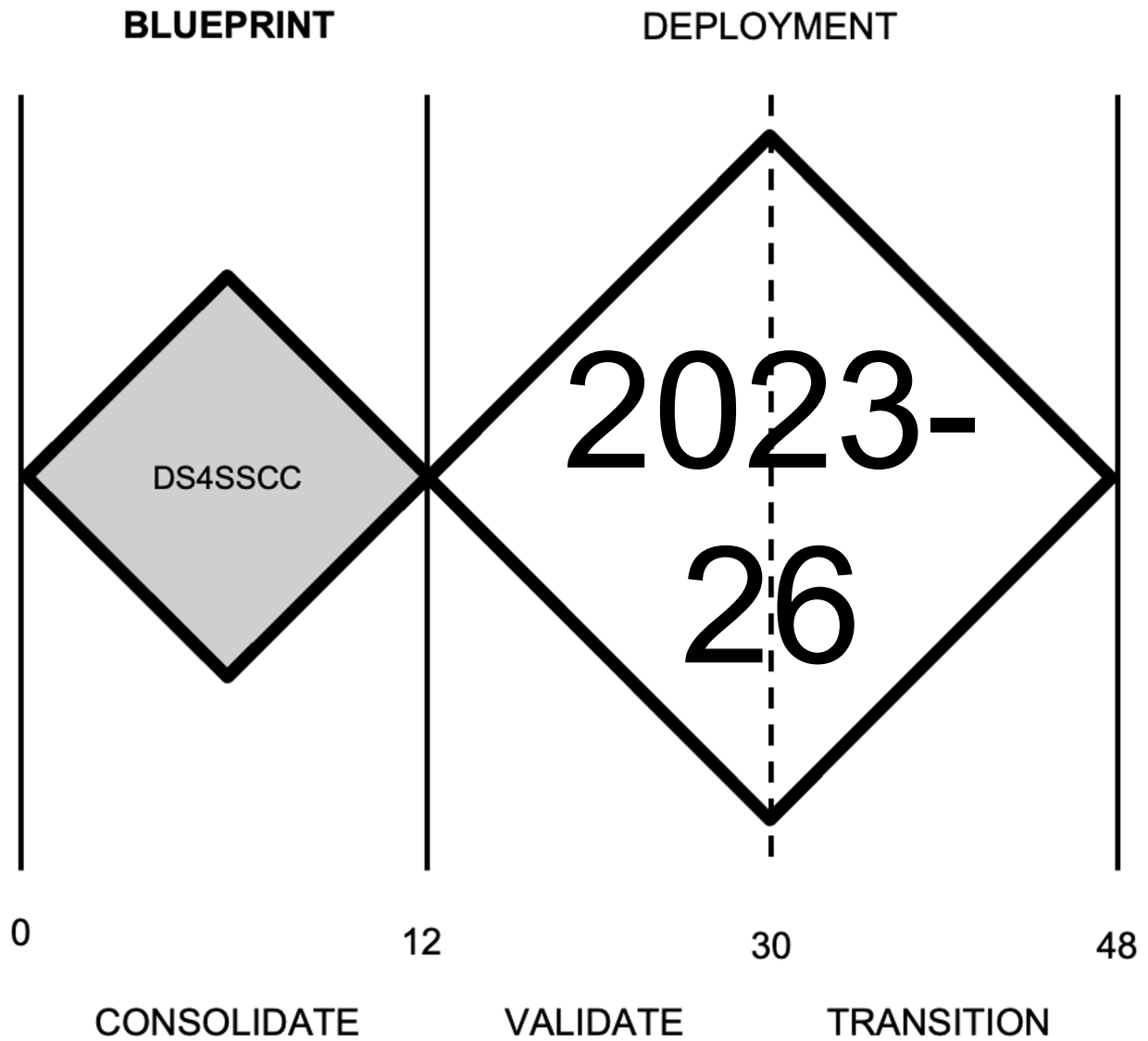
OPEN & AGILE SMART CITIES





DS4SSCC - An Initiative Overview

DATA SPACE



DS4SSCC - An Initiative Overview

Guide til bæredygtig, digital omstilling i Danmark: Anbefalinger



1 Fokuser på data

2
Byg med snitflader

3
Hav et minimum af
interoperabilitet

4
Vær åben over for teknologi-
valg

5
Prioritér partnerskaber
og økosystemer

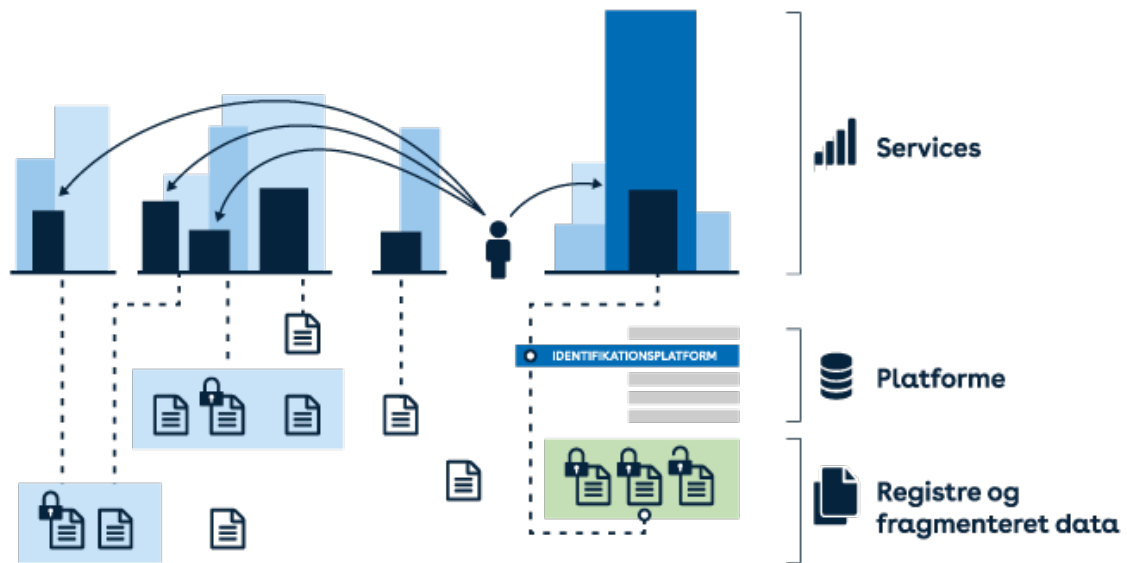
6
Vær bevidst om modenhed
og kompleksitet

7
Start småt, tænk stort

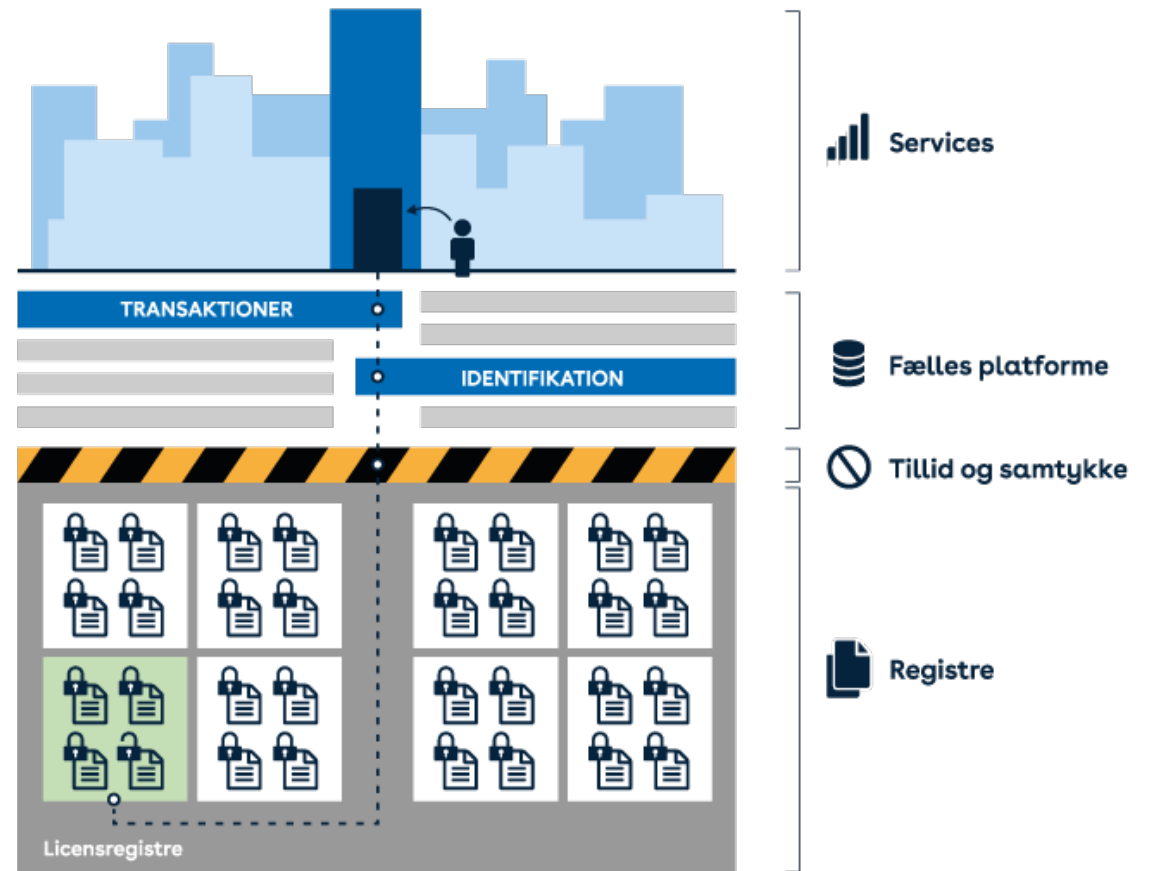
Gratis download:
<https://webshop.ds.dk/standard/M346207/ds-inf-176-2021>

Siloer vs. Helheds-forvaltning

Forvaltning i siloer

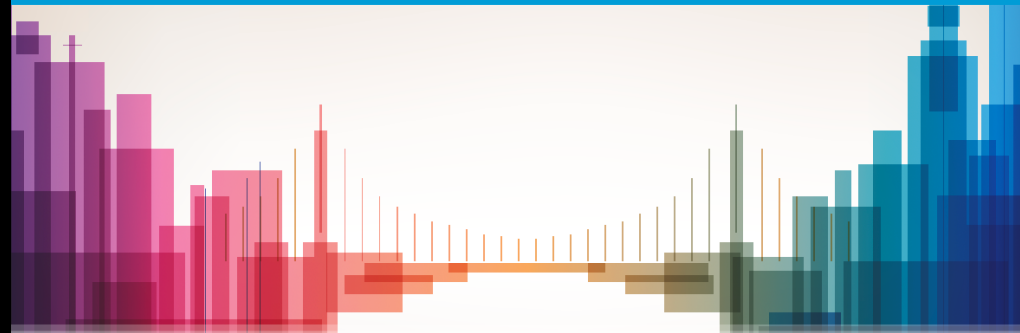


Forvaltningsplatform



Redefining smart city platforms: Setting the stage for Minimal Interoperability Mechanisms

A U4SSC deliverable on city platforms



Empowered lives.
Resilient nations.



Market

For Cities and Communities: Choice, flexibility, efficiency, value-for-money, independence, economic development

For Businesses: Scale, agile development/deployment

BENEFITS OF THE



For all:
Reduced risk, increased investments, innovation

Innovation & Policy

For Innovation Consortia: Pre-proposal alignment, post-proposal synergies, agile deployment

For Policymakers: Scale, broad market uptake, avoiding sub-optimisation, agile policy alignment