

STEIGERUNG DES BEWUSSTSEINS UND DER BEREITSCHAFT ZUR DIGITALISIERUNG DEUTSCHER GEMEINDEN



Federal Institute for
Research on Building,
Urban Affairs and
Spatial Development

within the Federal Office for
Building and Regional Planning



In Zusammenarbeit mit

17.10.2024

DEUTSCHLAND

Session Moderators



Dr. Bettina Distel

Bundesinstitut für Bau-, Stadt-
und Raumforschung (BBSR)

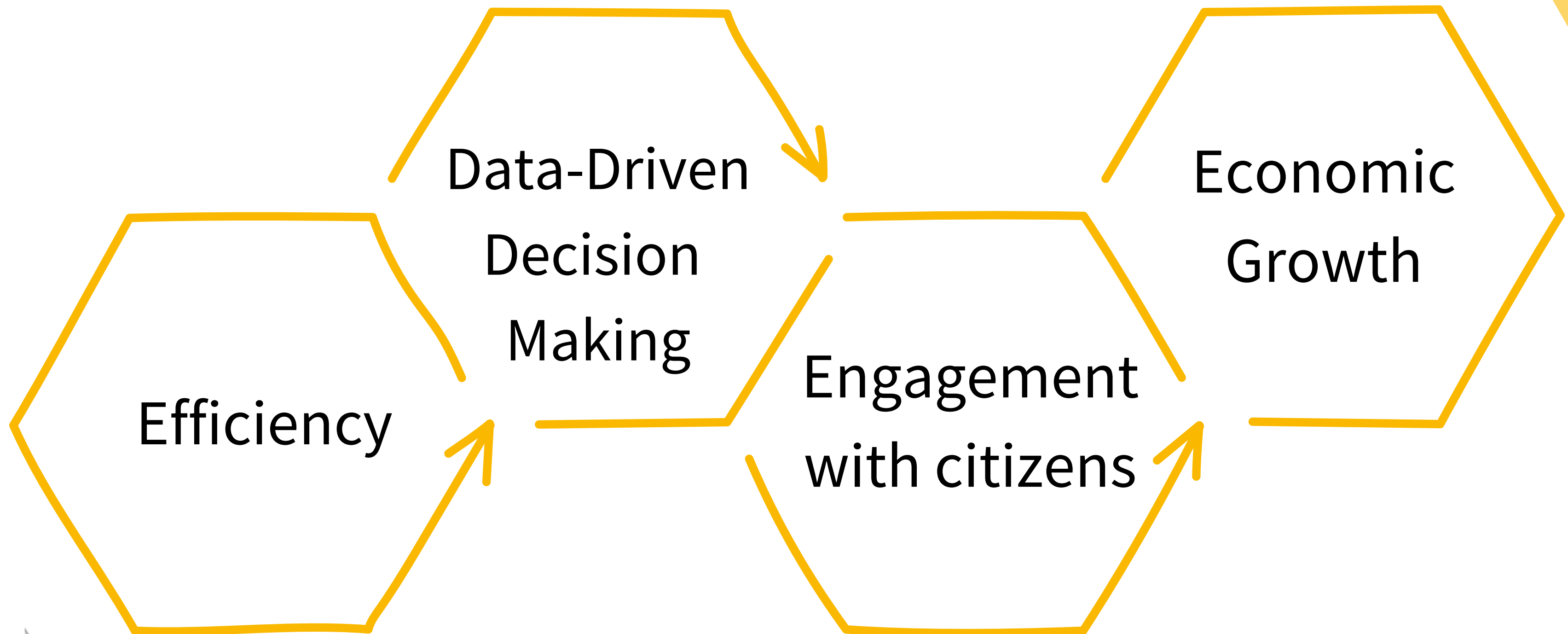


Christopher Aguilar

Serendipity

Context

Quality of life in our cities depends on better services and operations (mobility, waste management, environment, urban planning..). Use advanced technologies brings in:



Main Objective of the Conference

Increasing awareness and readiness, supporting EU communities that have not yet begun their digital transformation journey by providing resources, best practices, and training to develop digital strategies.

Scaling deployment of digital infrastructure, assisting communities with existing digital transformation strategies in deploying enabling digital infrastructures and tools based on commonly agreed standards.

Promoting Local Digital Twins, creating a European Local Digital Twin (LDT) toolbox that will facilitate the deployment of digital twins for innovative urban planning and sustainable solutions.



Main Approach of the sessions



HYBRID DISSEMINATION SESSION:

This introductory session delivers valuable insights into European digital topics, featuring presentations from experts who communicate in a clear and accessible manner.

It is designed for city and local community representatives and decision-makers, providing them with essential information and understanding to advance their digital initiatives.

The goal of this session is to raise awareness among the target group, and sets the stage for the follow-up training sessions.



ONLINE TRAINING SESSIONS:

These sessions are specifically tailored to address the unique needs of individual communities.

They offer comprehensive training on relevant digital topics and tools, ensuring participants gain the in-depth knowledge and skills required to effectively implement and manage their digital transformation projects.

The goal of these sessions is to provide participants with a hands-on approach to each of the topics disseminated in the hybrid event.



PROMOTING EUROPEAN INITIATIVES:

Promoting and disseminating European Initiatives to support communities in their digitalisation strategy.

The goal is to make sure communities know and utilise these resources and communities available at European level such as [Living-in.EU](#), [LORDIMAS](#), [European data space for smart communities](#), the [Online Procurement Helpdesk](#), the Local Digital Twin Toolbox or the [LDT EDIC](#) among others.



AGENDA

Detailed Agenda Overview

Phase 0: How to Start Your Digitalisation Journey



October 17, 2024



10:00

TIME	TOPIC	SPEAKER
10:00 - 10:05	Welcome	Dr. Bettina Distel <i>Federal Institute for Reasearch on Building Urban Affairs and Spatial Development</i>
10:05 - 10:15	Introduction to Local Digital Twins	Dr. Bettina Distel <i>Federal Institute for Reasearch on Building Urban Affairs and Spatial Development</i>
10:15 - 10:30	Local Digital Twins and their Role in Achieving EU Green Deal Objectives	Felix Hörmann <i>Connected Urban Twins</i>
10:30 - 10:45	Assessing Your Digital Readiness with LORDIMAS	Jörg Rainer Noening <i>City of Dresden</i>
10:45 - 11:00	Developing Your Implementation Roadmap	Jörg Rainer Noening <i>City of Dresden</i> Christopher Aguilar <i>Serendipity</i>
11:00 - 11:15	Supporting Ecosystems and Collaborations	Luca Kerscher <i>EuroCities / Living-in.EU</i>
11:15 - 11:30	Q&A and Closing Remarks	Dr. Bettina Distel <i>Federal Institute for Reasearch on Building Urban Affairs and Spatial Development</i>

The Journey

WHY



Discovery Phase

Unlocking the potential of digitalisation

Learn about Local Digital Twins' foundational concepts, their role in urban decision-making, and how they support the EU Green Deal's sustainability objectives through practical examples and case studies.

HOW



Planning Phase

Laying the foundation of your digital journey

Learn about LORDIMAS for assessing digital maturity and developing an implementation roadmap to advance digitalisation, including the role of open data platforms and procurement support.

SUPPORT



Empowerment Phase

Empowering your digital transformation

Explore ecosystems and funding opportunities to accelerate your community's digital transformation through collaboration and financial support.





LOCAL DIGITAL TWINS



DR. BETTINA DISTEL

Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR)

Dr. Bettina Distel ist wissenschaftliche Projektleiterin im Bundesinstitut für Bau-, Stadt- und Raumforschung im Bundesamt für Bauwesen und Raumordnung.

Ihre Expertise umfasst die Themen Smart Cities, Verwaltungsdigitalisierung, insb. Public Service Innovation, und sozialer Zusammenhalt in der digitalen Gesellschaft, insb. Vertrauen.

Zuvor war sie als wissenschaftliche Mitarbeiterin und akademische Rätin am Institut für Wirtschaftsinformatik der Universität Münster tätig, wo sie 2018 zudem promoviert hat.

Bettina Distel ist Mitglied im Nationalen E-Government Kompetenzzentrum NEGZ e. V., einem Netzwerk aus Expert*innen zur Verwaltungsdigitalisierung aus Verwaltung, Wissenschaft und Wirtschaft, sowie der Digital Government Society, einem internationalen Expert*innen-Netzwerk.



What is a Local Digital Twin?

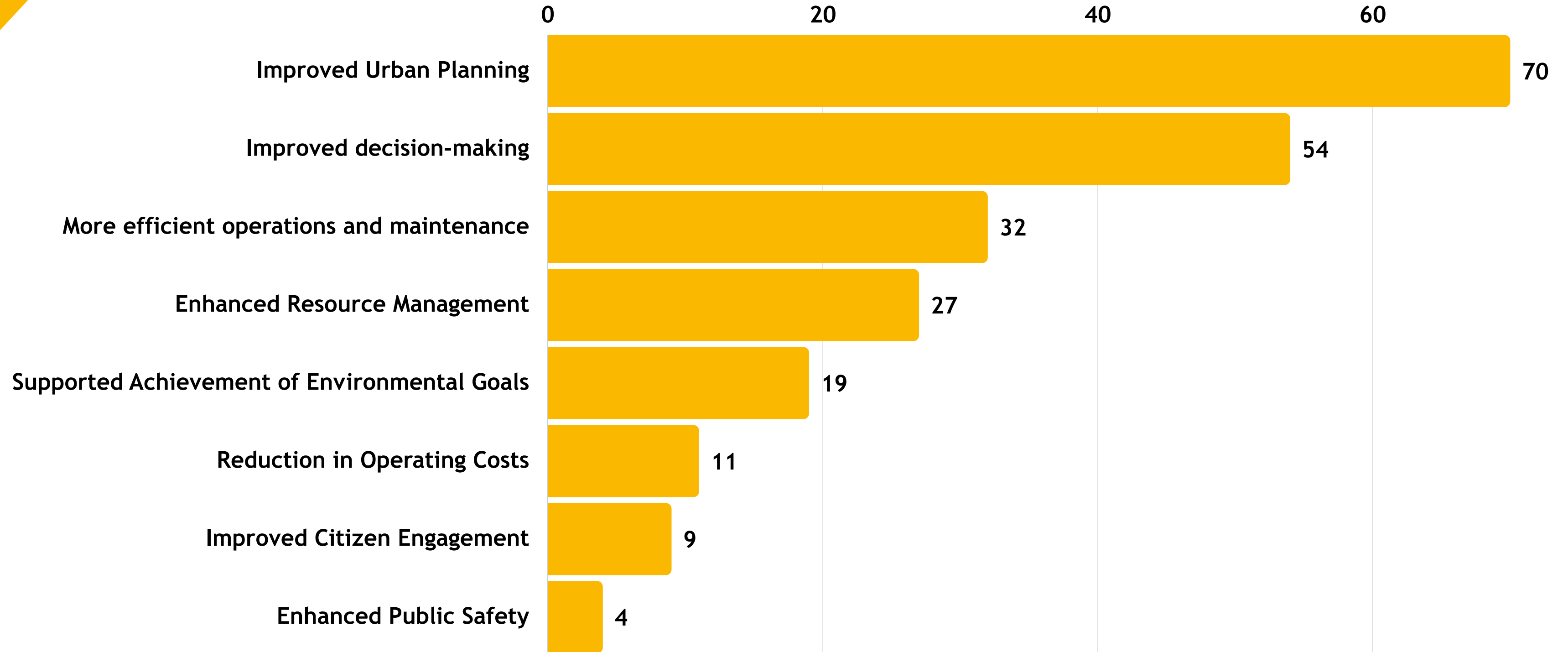
A **Digital Twin** is a continuous learning digital copy of real-world assets, systems and processes...





A digital twin is a digital or virtual copy of physical assets or products.

What Are LDTs Used For?



Application Use Case

1

Urban Planning / Zoning / Development

Land use

Building footprints

Shadow and wind patterns

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

Land use

Building footprints

Shadow and wind patterns

Asset tagging

IoT Sensors

Infrastructure data

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

3

Environmental & Climate Monitoring

Land use

Building footprints

Shadow and wind patterns

Asset tagging

IoT Sensors

Infrastructure data

IoT sensors

Topography

Water and Climate Models

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

3

Environmental & Climate Monitoring

4

Public Safety and Crowd Dynamics

Land use

Building footprints

Shadow and wind patterns

Asset tagging

IoT Sensors

Infrastructure data

IoT sensors

Topography

Water and Climate Models

Optical sensors

Video

GPS

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

3

Environmental & Climate Monitoring

4

Public Safety and Crowd Dynamics

5

Transportation and Pedestrian Planning

Land use

Building footprints

Shadow and wind patterns

Asset tagging

IoT Sensors

Infrastructure data

IoT sensors

Topography

Water and Climate Models

Optical sensors

Video

GPS

Lighting

Traffic

Ped counting

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

3

Environmental & Climate Monitoring

4

Public Safety and Crowd Dynamics

5

Transportation and Pedestrian Planning

6

Facilities Management

Land use

Building footprints

Shadow and wind patterns

Asset tagging

IoT Sensors

Infrastructure data

IoT sensors

Topography

Water and Climate Models

Optical sensors

Video

GPS

Lighting

Traffic

Ped counting

Building details

HVAC and utilities

Optical sensors

Application Use Case

1

Urban Planning / Zoning / Development

2

Asset & Infrastructure Management

3

Environmental & Climate Monitoring

4

Public Safety and Crowd Dynamics

5

Transportation and Pedestrian Planning

6

Facilities Management

Land use

Building footprints
Shadow and wind patterns

Asset tagging

IoT Sensors
Infrastructure data

IoT sensors

Topography
Water and Climate Models

Optical sensors

Video
GPS

Lighting

Traffic
Ped counting

Building details

HVAC and utilities
Optical sensors

GIS

Planning

Public works
Economic development

Parks

Transportation

Environment

Police

Fire

Emergency management

Public safety

Facilities management

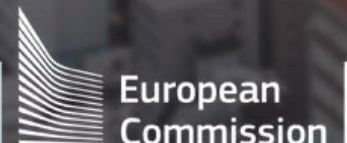
🌿 Data, the new soil 🌿

Unique Value Proposition of LDTs



A person in a white shirt is holding a tablet. On the tablet screen, a digital cityscape is visible, featuring several tall skyscrapers. A white, glowing network of lines and nodes is superimposed over the city, representing a digital twin or smart infrastructure. The background of the image is a blurred cityscape at dusk or dawn.

LOCAL DIGITAL TWINS AND OTHER DIGITAL TOOLS TO DEPLOY THE EU GREEN DEAL



Felix Hörmann

Connected Urban Twins

Information about the speaker

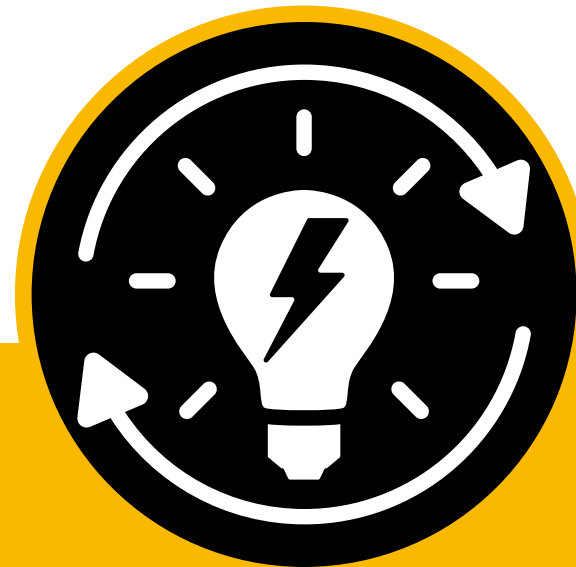


The Role of Cities in the Green Transition

Cities play a pivotal role in achieving climate neutrality by 2050,
the goal of the European Green Deal, accounting for:



75 % of EU citizens



65 % of the world's energy
consumption



+70 % of global CO2 emissions

European cities can contribute to the Green Deal target of reducing emissions by 55% by 2030 and, in more practical terms, to offer cleaner air, safer transport and less congestion and noise to their citizens.

Climate Neutral and Smart Cities Mission

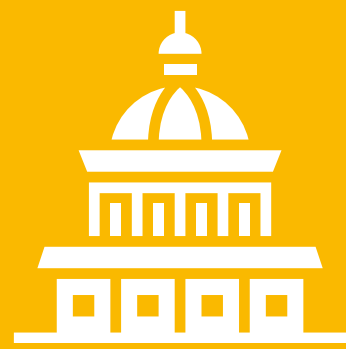
- 112 climate-neutral and smart cities by 2030. 7 German cities (Berlin, Dortmund, Dresden, Frankfurt, Mannheim, Munich, Münster)
- Ensure that these cities act as experimentation and innovation hubs to put all European cities in a position to become climate neutral by 2050

100 EU cities

12 cities from Horizon Europe associated countries



Cities from every
Member State



Capital cities



Small, medium,
large cities



Frontrunners and
less prepared cities

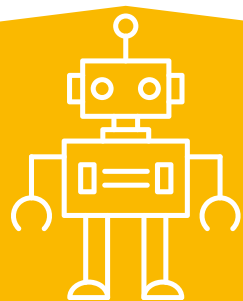


The Twin Green and Digital Transition Go Hand in Hand

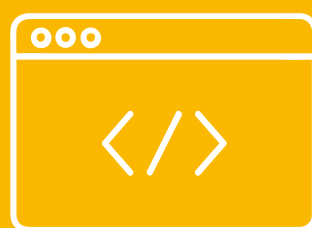
- The digital transformation is taking place against a backdrop of rapid climate change
- The EU's policy agenda looks at digital twins as far-reaching technologies that can support smart cities in contributing to the European green deal strategy, enhancing energy efficiency, adaptation of society to climate change and resilience of urban centres.
- Placed into urban contexts, digital twins help smart cities to reassess their urban planning, transforming how cities are displayed, monitored and managed



Monitoring and
Tracking



Simulation and
Forecasting



System
Management



Virtualisation



Information and
Communication
Technologies



National Examples



Local City Name (MUNICH)

(Text)

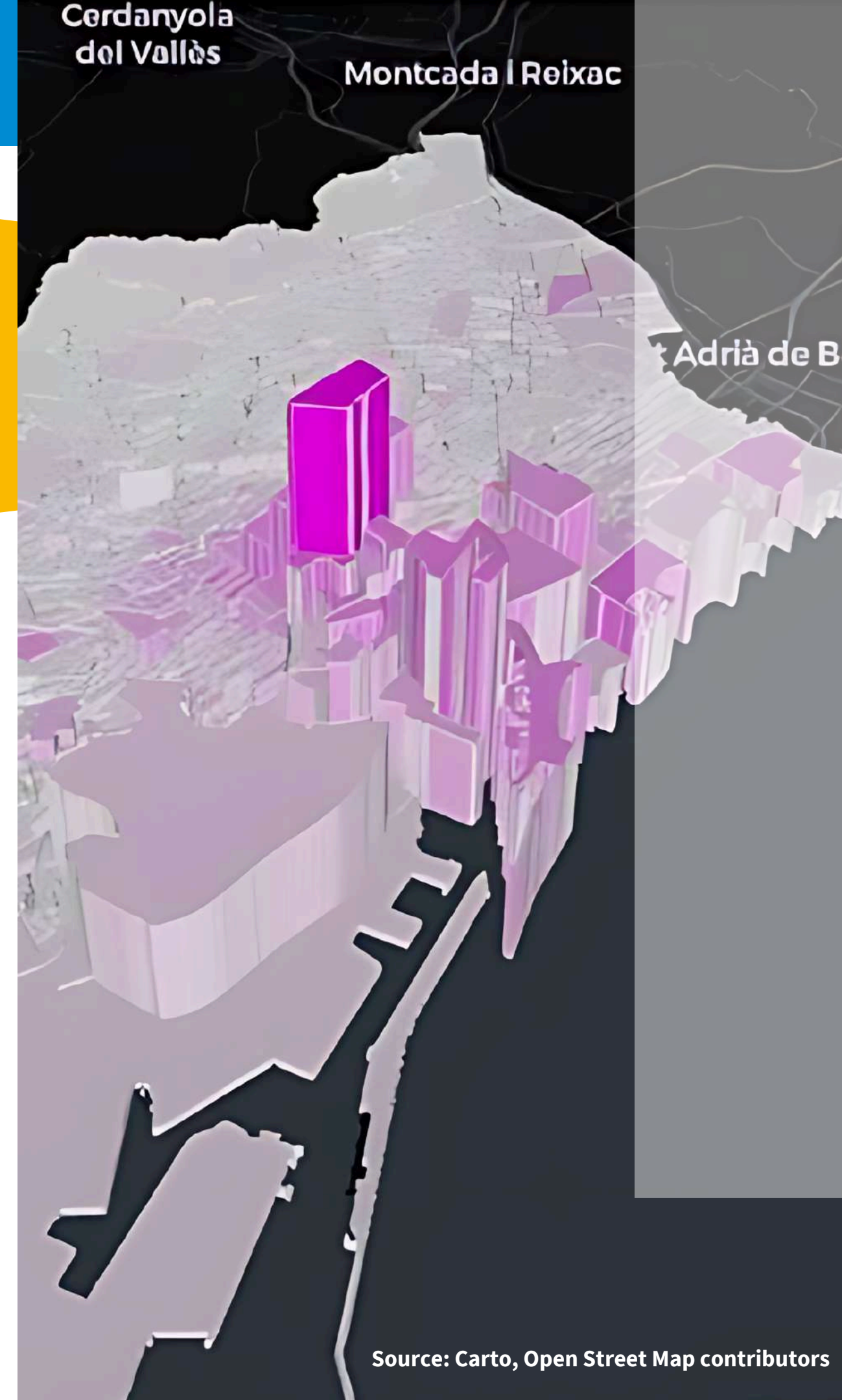
European Examples

Barcelona's Superilles (Success story)

- The goal of the project is to create a healthy, greener, fairer and safer public space that promotes social relations and the local economy.
- Barcelona Supercomputing Centre revealed that while improving air quality, superblocks have also increased pollution in adjacent areas where traffic has been displaced.

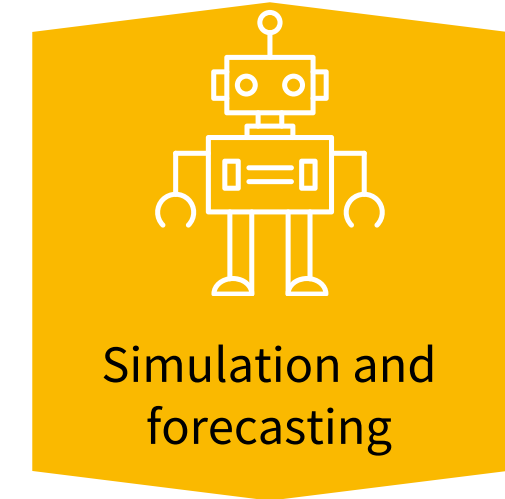


Digital twins' technologies have permitted to measure and evaluate the impact of urban policies, and correct them if it was needed.



DUET Project in Flanders (success story)

- A traffic model calculates what traffic volumes can be expected at the same time in the surrounding streets when one or more streets are closed.
- The interaction between the traffic model and the air quality model allow to simulate the effects of traffic measures in the city on mobility and the environment.



Digital twins' technologies allow cities to test how different decisions will affect the city and its residents. The digital twins allows local governments to make mistakes in the virtual world, rather than reality, and avoid unexpected effects of policies.

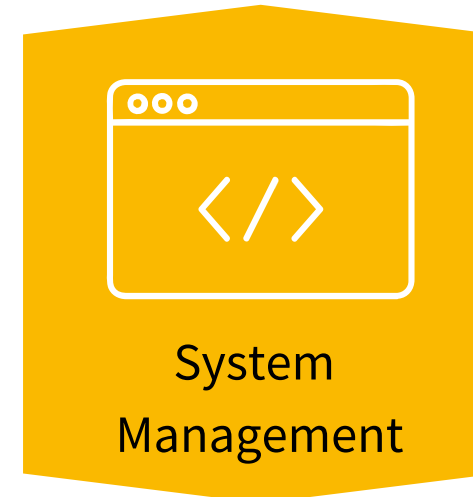


RUGGEDISED Project in Rotterdam

(success story)

- The Ruggedised project aimed at transforming large districts or buildings into low carbon and resource efficient districts through smart interaction and integration of energy systems at district level.
- Ruggedised implemented 13 smart solutions to achieve maximum energy efficiency and CO2 reduction, while having a social economic impact in terms of job creation, levels of participation of citizens and quality of life. One of the outcomes was building a “3-D city operations platform”.

The platform discloses and visualises actual use of energy as well as its use over a period of time, it makes it possible to monitor and communicate different information, enabling endless applications and scalable solution to digital city level.



**Implementation
report Rotterdam**

Utrecht and Amsterdam's 3D Platforms (Success story)

- The municipalities of Amsterdam and Utrecht are jointly developing an online platform for anyone to build their own 3D environment and provide it with their own data and various functionalities.
- The platform provides a 3D version of the city, allowing the local government to better discuss with local residents and stakeholders in the context of participation. Designers and project developers can add models to the 3D platform themselves.

The 3D platforms allow the municipality, residents and other stakeholders to visualise how changes will affect their environment. For example, placing solar panels in public buildings or monuments. This solution is available for other Dutch cities to use.

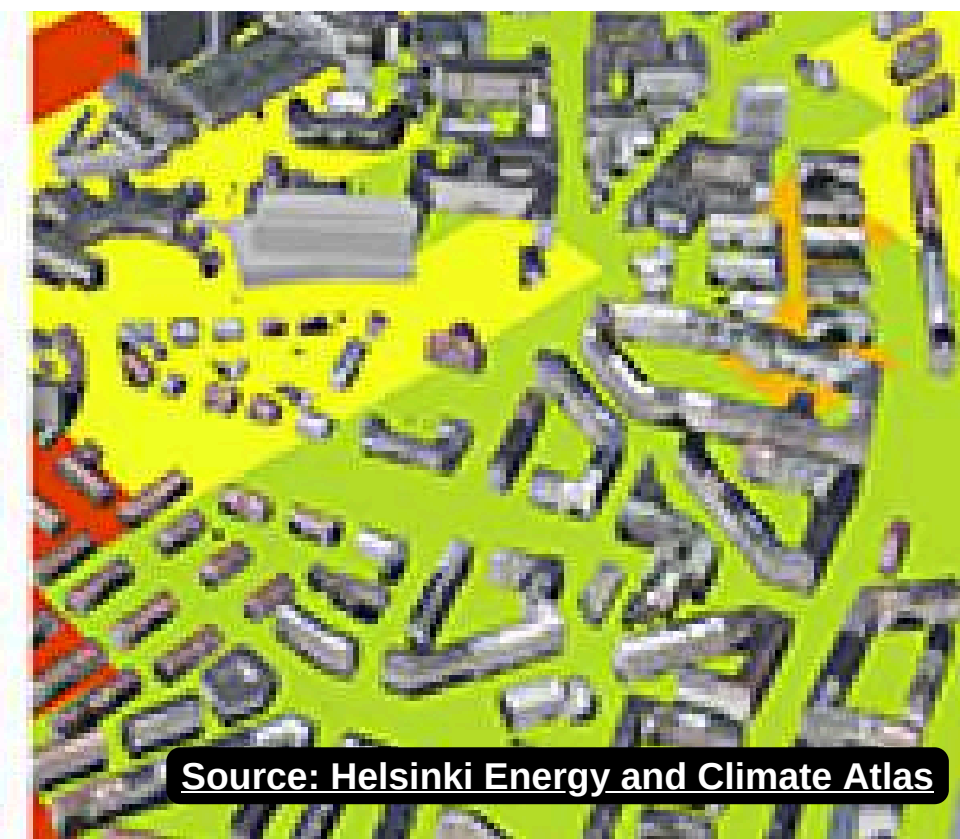
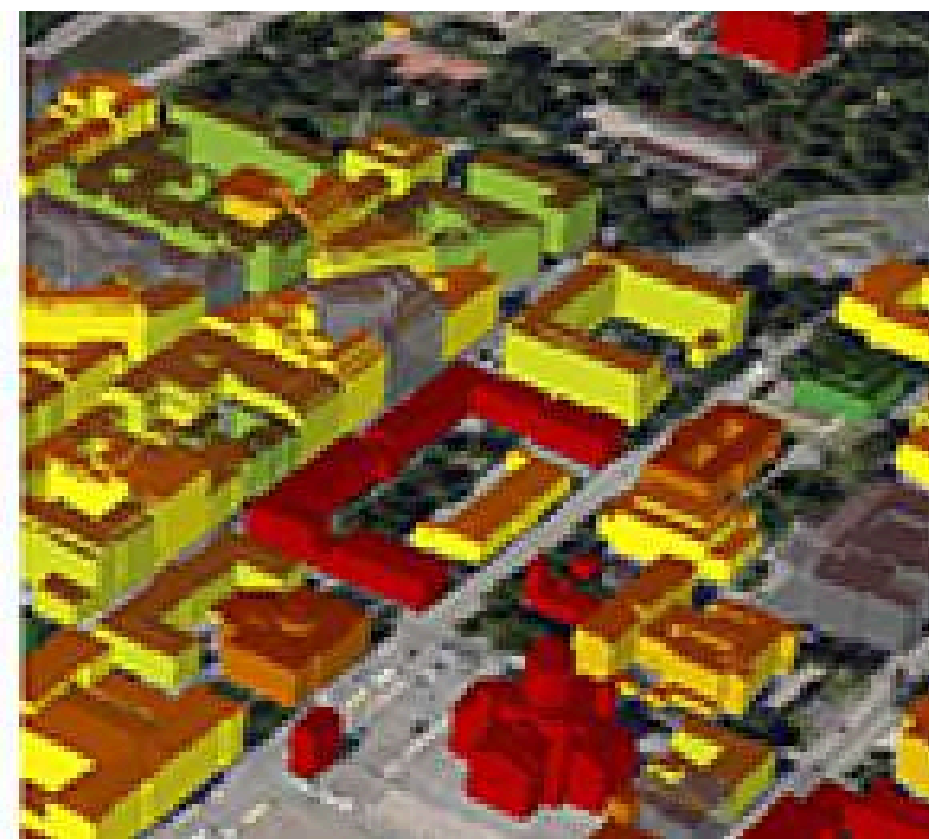
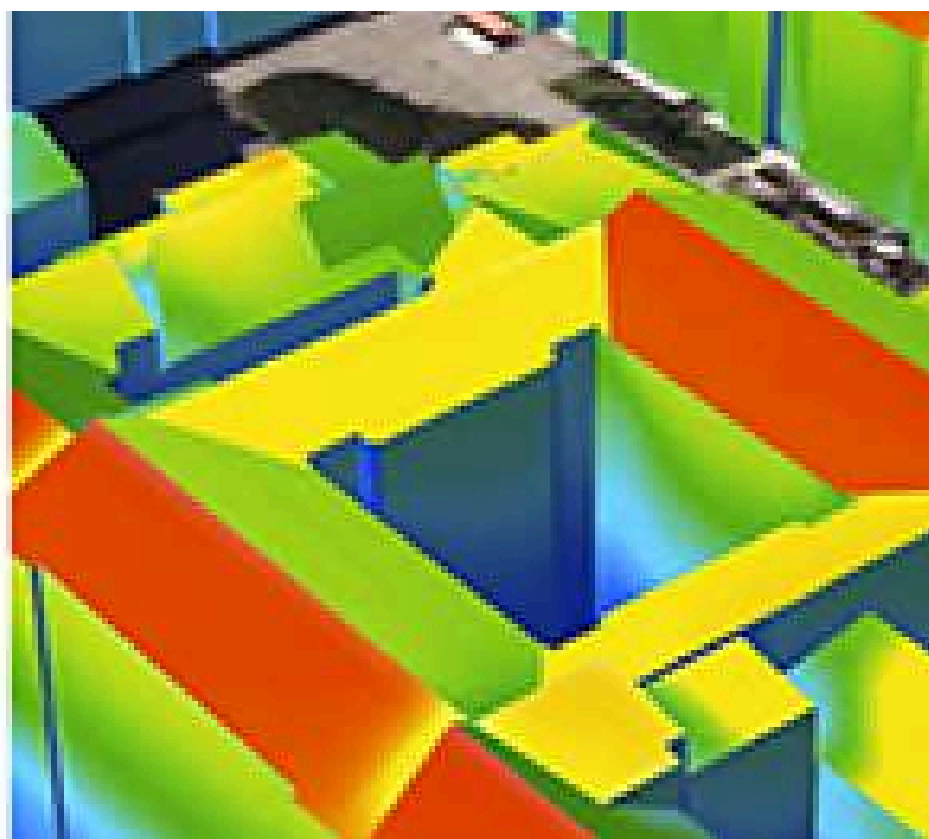
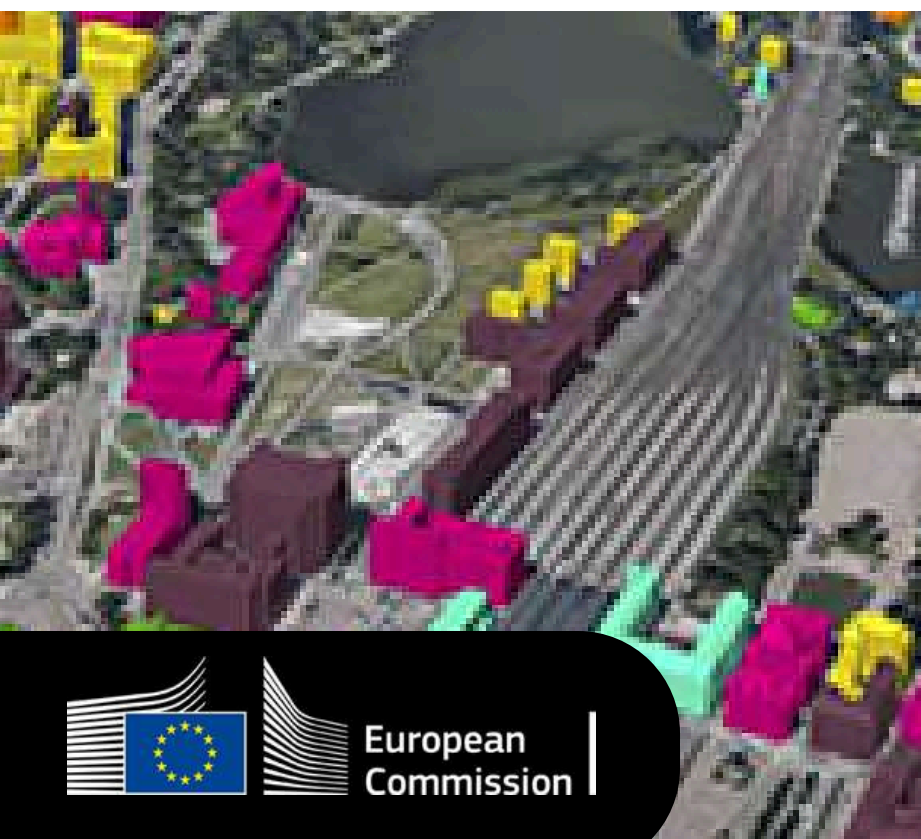


Helsinki 3D+ Energy and Climate Atlas

- The Helsinki Energy and Climate Atlas is a free browser service based on the 3D City Models, and it contains information about renewable energy and possibilities for energy renovations throughout the Helsinki region.
- It contains a large amount of building-specific information, energy and refurbishment information, as well as information about the consumption of water, district heating and electricity.



This technology allows the city and residents to see the indicative energy consumption estimate for nearly every building, and includes information about how much solar radiation energy the surfaces receive on an annual and monthly basis.



The Journey

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Laying the foundation of your digital journey


Learn about LORDIMAS for assessing digital maturity and developing an implementation roadmap to advance digitalisation, including the role of open data platforms and procurement support.

SUPPORT

Empowerment Phase

Powering your digital transformation

Explore ecosystems and funding opportunities to accelerate your community's digital transformation through collaboration and financial support.

A person in a light blue shirt is holding a tablet. The tablet screen shows a vibrant city skyline at night, with several skyscrapers illuminated. Overlaid on the city is a white, glowing geometric network of lines and dots, resembling a digital or data structure. The background of the entire image is a blurred cityscape under a hazy, sunset-like sky.

ASSESSING YOUR DIGITAL READINESS

Christopher Aguilar

Serendipity

Information about the speaker



The LORDIMAS Tool

An interactive tool helping local and regional governments to understand where they are in their digital transformation journey

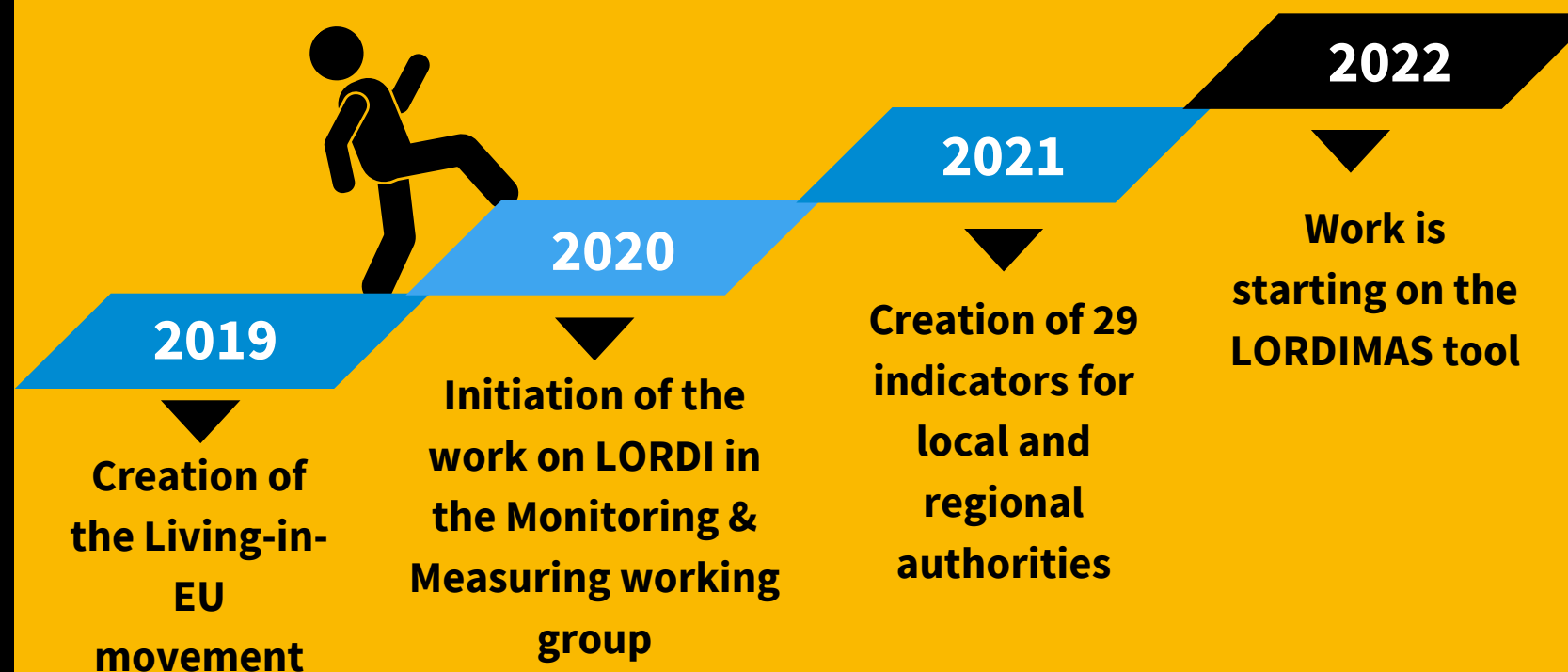
HOW WAS LORDIMAS CREATED



A collaborative process with many stakeholders engaged in its creation and its deployment.



WHERE DOES IT COME FROM?



Rooted in the discussions that are currently taking place within the Living-in.EU and topics with direct linkages with the Digital Europe Programme.

WHO DOES IT ADDRESS?

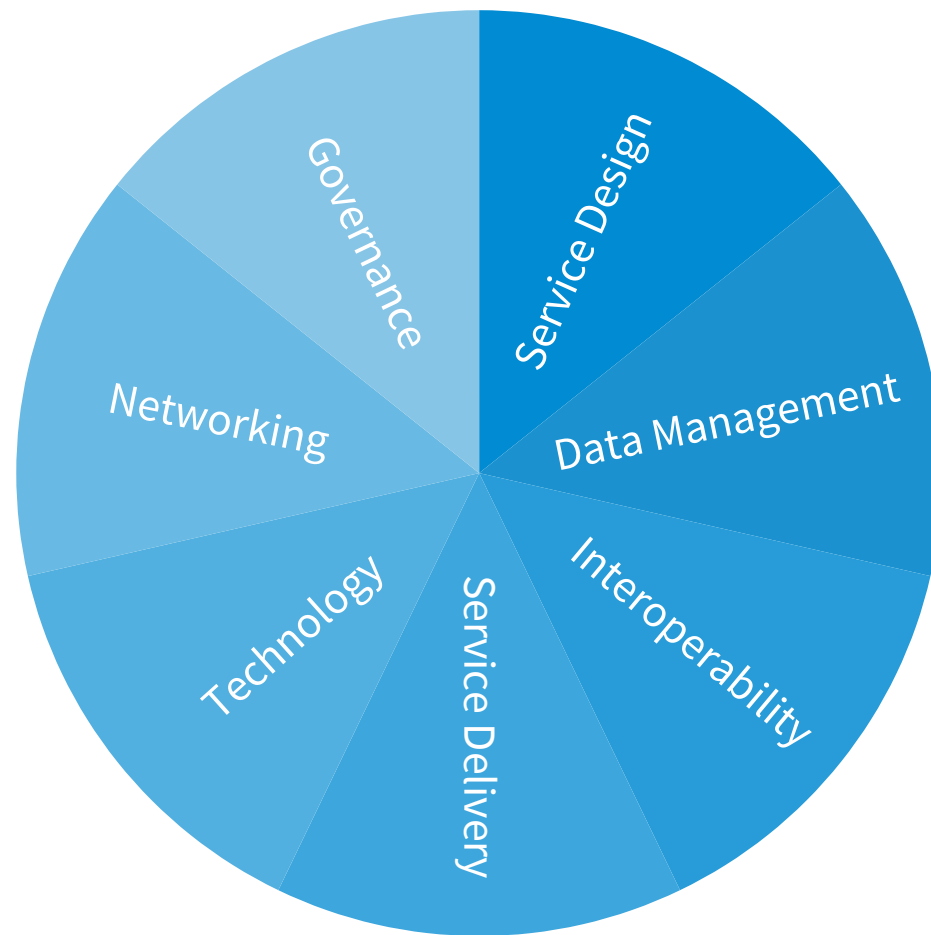


A wide range of cities, municipalities and regions at different stages of their digital transformation journey.

The Use Case for LORDIMAS

Dimensions of the tool

7 self-assessment dimensions



6 levels of maturity

Digital
Native

Digitally
Optimized

Digitally
Purposeful

Digitally
Emerging

Digitally
Emerging

Digitally
Nascent

Functionalities

Evaluate: A tool to help you assess your digital maturity and monitor progress made towards digital transition.

Compare: An interactive dashboard to benchmark your city to other similar cities.

Share: A repository of good practices to showcase your initiatives and results and to draw inspiration from other cities.

Learn: Learn about emerging topics and receive policy advice.

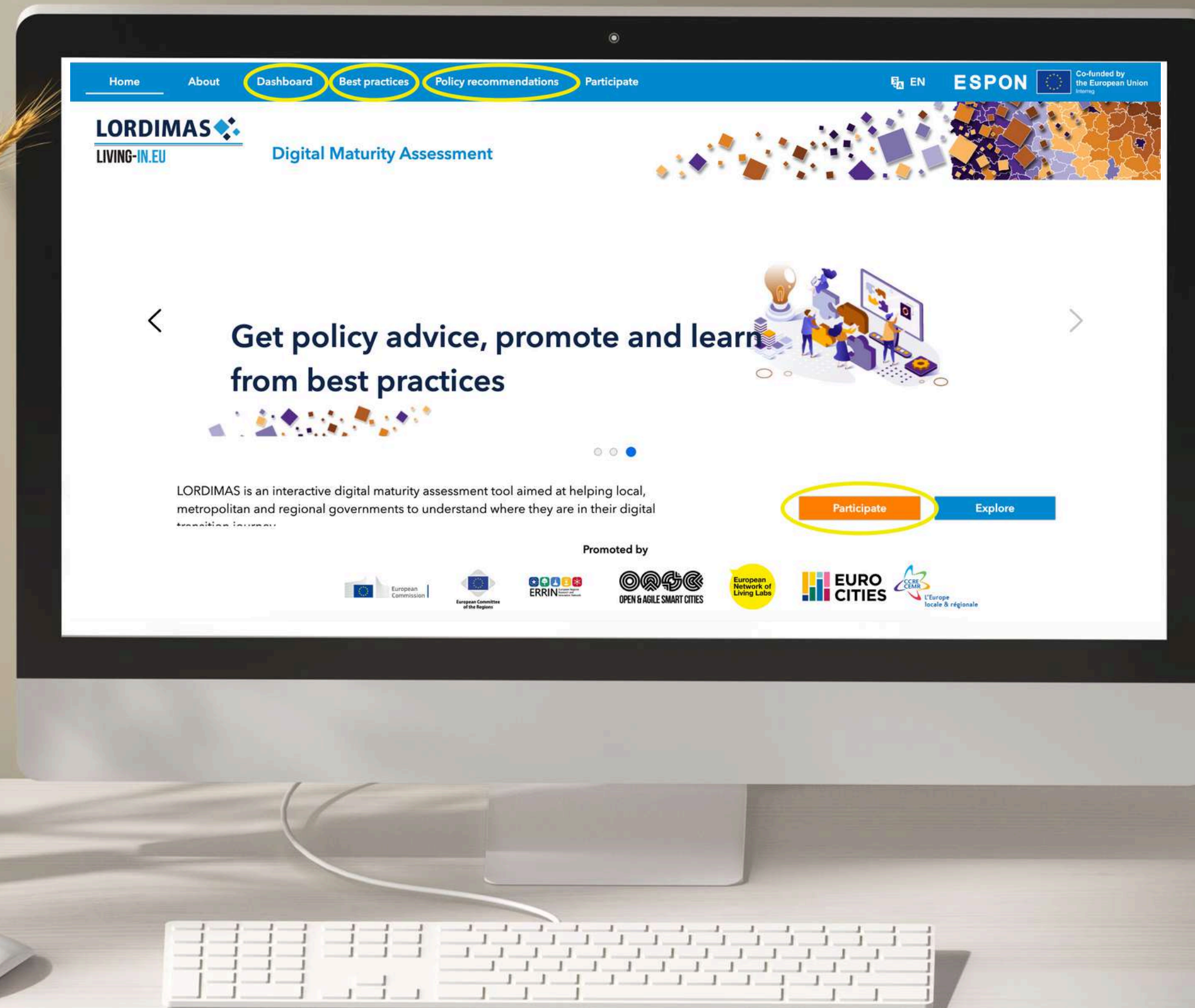
Questions it Helps Answer

- Is my city above/below the EU median?
- How do I rank compared to other cities of similar size, urban/rural cities, cities in my country?
- Are there dimensions that my city over/under performs compared to the median?
- What are my city's progresses towards digital maturity?

Facilitates

- Review of achievements and plans for continuation of transformation effort
- Assessment of local enablers
- Identification of opportunities, areas for improvement and how the ecosystem could work together to achieve goals

How does LORDIMAS Work?



Digital Maturity

Dashboard

es the overall digital maturity

ations, looking into the seven

Governance, Service design,

Interoperability, Service

ity and Networking.

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section.

Maturity Assessment

Digitally native

Very high levels of digital transition

Digitally optimised

High levels of digital transition

Digitally purposeful

Moderate levels of digital transition

Digitally emerging

Low levels of digital transition

Digitally reactive

Very low levels of digital transition

Digitally nascent

Lacking digital transition

Population size

> 5 000 000

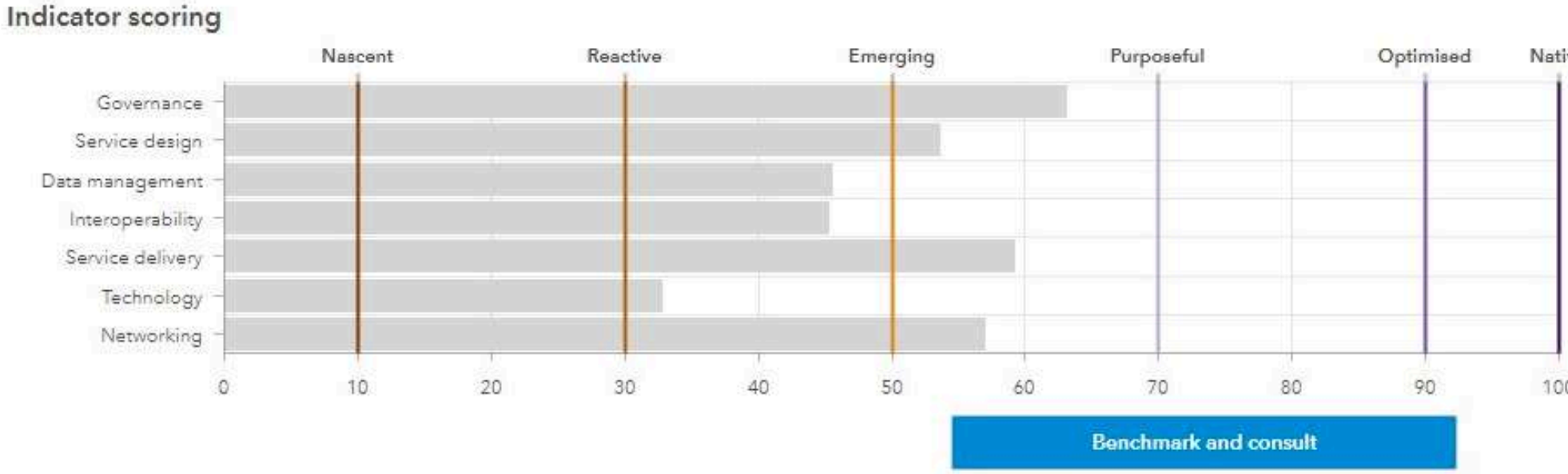
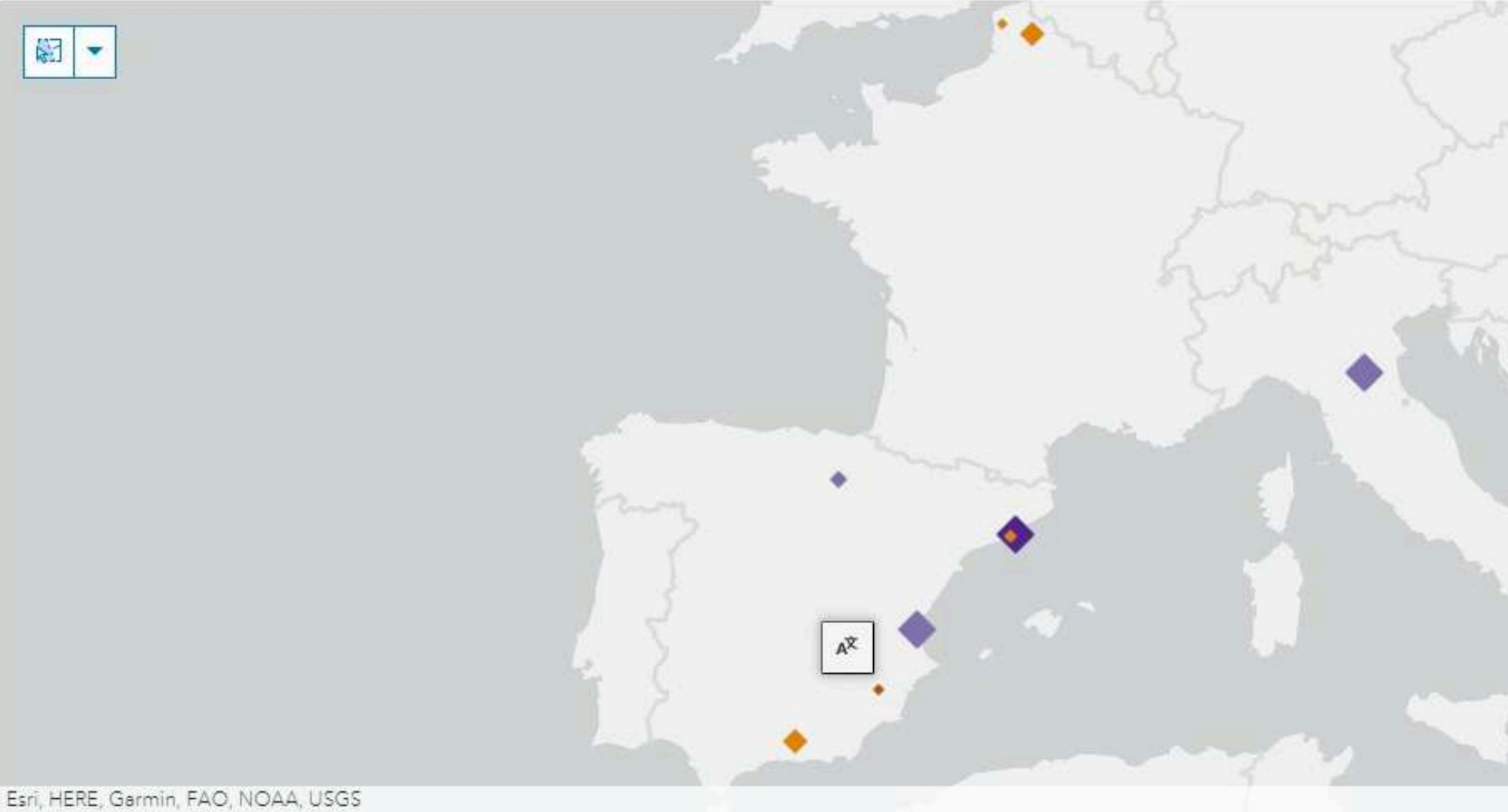
< 5 000

Maturity level: Digitally purposeful

Maturity score: 50.6/100

0

100



Analyse and visualise

Analyse and visualise

Overall Digital Maturity

About this dashboard

This module assesses the overall digital maturity of public administrations, looking into the seven LORDIMAS topics: Governance, Service design, Data Management, Interoperability, Service delivery, Technology and Networking.

Search and filter

Filter by country

Finland

Filter by type

No category selected

The Digital Maturity Assessment is calculated for the selection you see on the Map. You can select one or multiple public authorities using the Map or Search and Filter section.

Maturity Assessment

- Digitally native
Very high levels of digital transition
- Digitally optimised
High levels of digital transition
- Digitally purposeful
Moderate levels of digital transition
- Digitally emerging
Low levels of digital transition
- Digitally reactive
Very low levels of digital transition
- Digitally nascent
Lacking digital transition

Population size

Maturity level: Digitally optimised

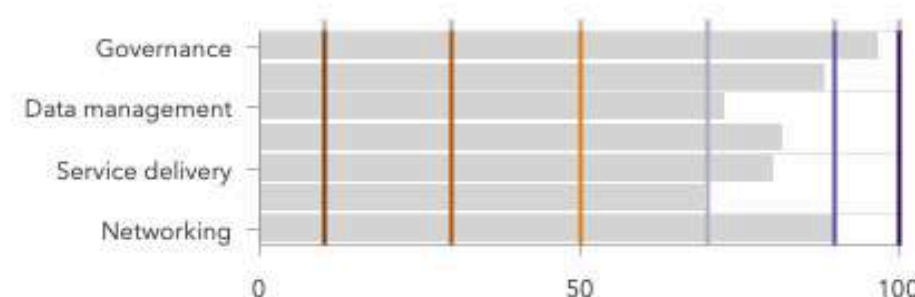
Maturity score: 82.5/100



Esri, TomTom, FAO, NOAA, USGS

Powered by Esri

Indicator scoring



Overall Digital Maturity

About this dashboard

This module assesses the overall digital maturity of public administrations, looking into the seven LORDIMAS topics: Governance, Service design, Data Management, Interoperability, Service delivery, Technology and Networking.

Search and filter

No category selected

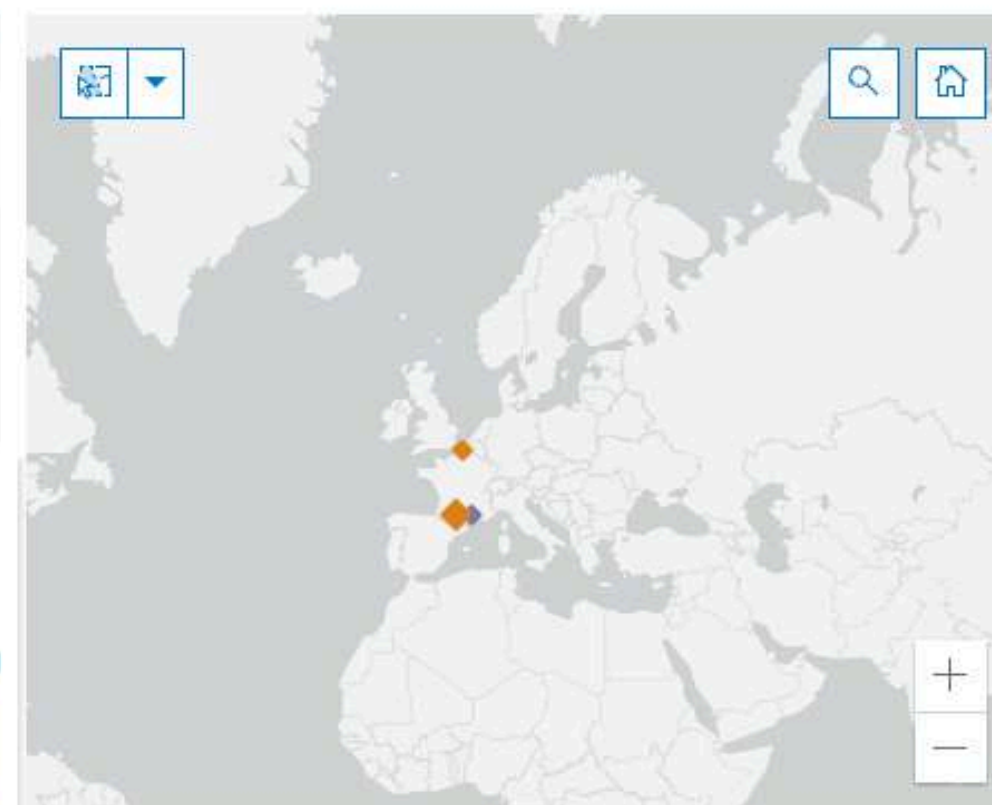
Filter by country

France

Filter by type

No category selected

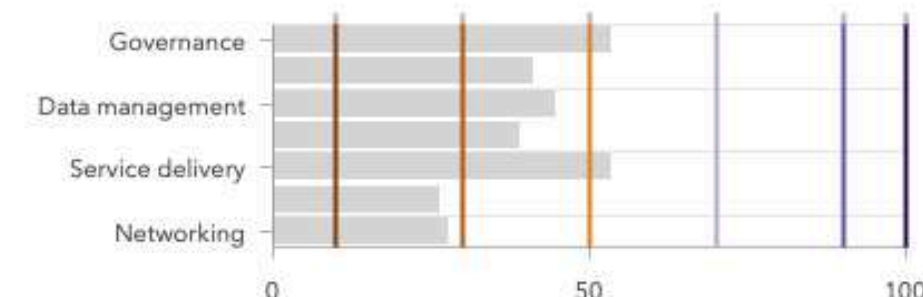
The Digital Maturity Assessment is calculated for the selection you see on the Map. You can select one or multiple public authorities using the Map or Search and Filter section.



Esri, TomTom, FAO, NOAA, USGS

Powered by Esri

Indicator scoring



All

Governance

Service design

Data management

Interoperability

Service delivery

Technology

Networking

Insert your best practice

**[Draft example] Helsinki's innovation...**

Forum Virium Helsinki (FVH) is the City of Helsinki innovation company. FVH co-creates...

**[Draft example] Terrassa creates a m...**

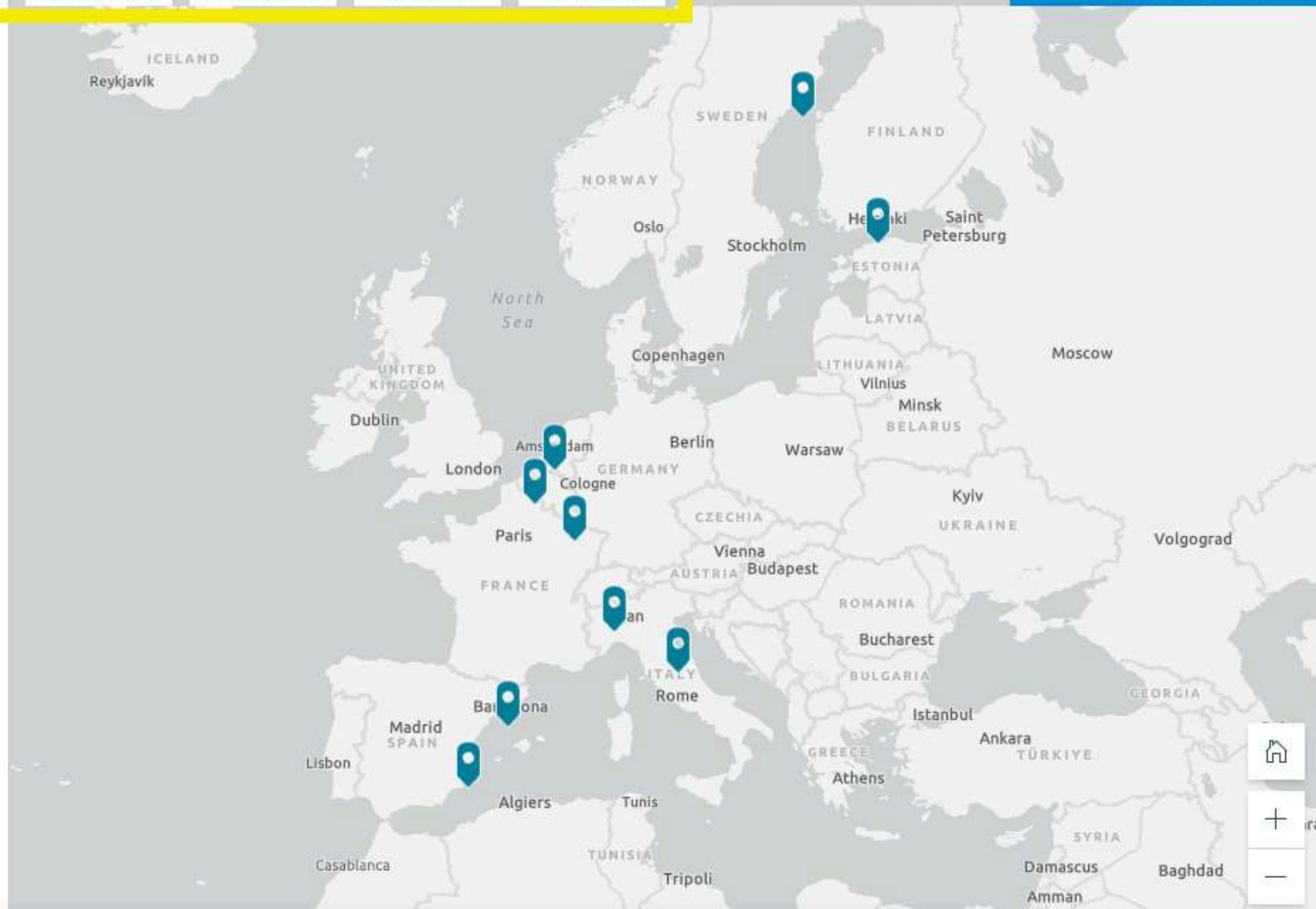
"Participa a Terrassa" (participa.terrassa.cat) is the online tool for citizen participation that...

**[Draft example] Amsterdam informs ...**

Private companies, research institutions and government organisations in Amsterdam mus...

**[Draft example] Umeå integrates dat...**

The Umeå urban data platform (UDP) integrates a wide number of data sources from both...



Jörg Rainer Noening

The experience of the City of Dresden

Information about the speaker

A person in a light blue shirt is holding a tablet. The tablet screen shows a vibrant city skyline at night, with several skyscrapers illuminated in blue and yellow. A white, glowing network of lines and dots is superimposed over the city, suggesting a digital or smart city theme. The background of the entire image is a blurred cityscape under a sunset sky.

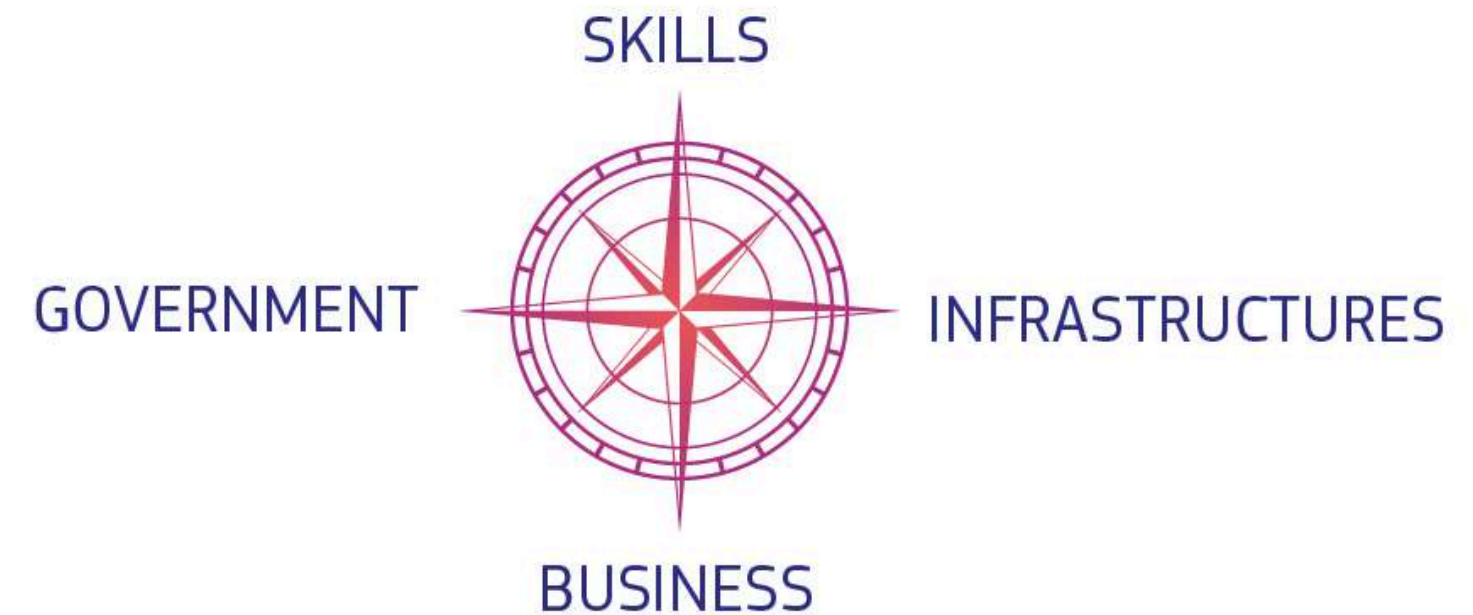
DEVELOPING YOUR IMPLEMENTATION ROADMAP



European
Commission

The importance of implementing digitalisation roadmaps

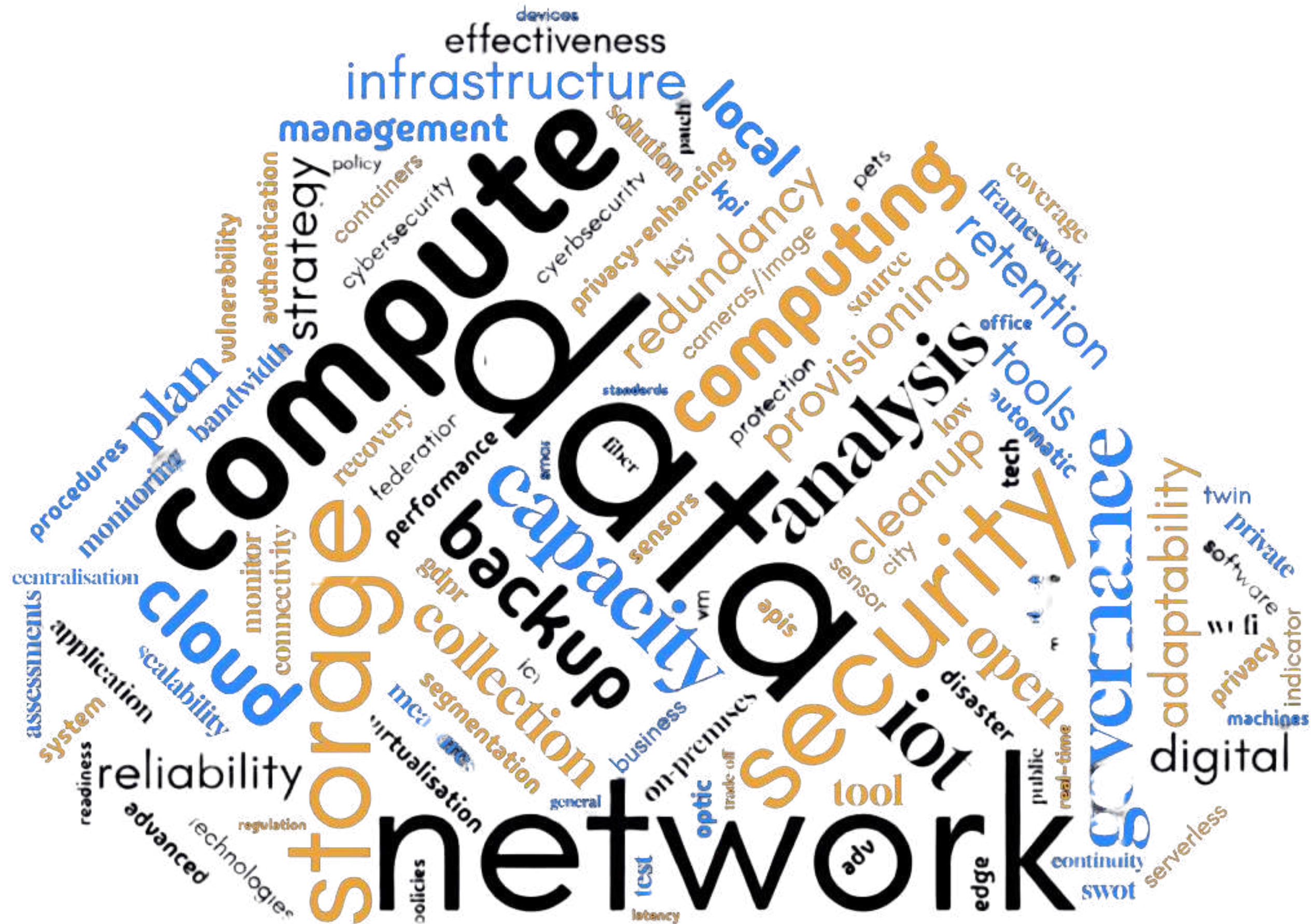
Let's make this
Europe's Digital Decade!



**The European
Green Deal**

#EUGreenDeal

What Digital Transformation Concepts Need to be in Place



What Digital Transformation Concepts Need to be in Place

Adaptability	Data Governance	ICT Infrastructure	Open Source Software	System / Application
APIs	Data Governance Framework	Infrastructure Security	Open Standards	SWOT Analysis
Authentication federation tool	Data Governance Tool	IoT	Plan, Monitor & Test	Trade-off
Automatic Storage Management	Data Retention and Backup	IoT Devices	Privacy Compliance	Virtual Machines (VMs)
Backup Solution	Data Strategy	IoT Sensor	Privacy-Enhancing Tech (PETs)	Virtualisation
Bandwidth	Disaster Recovery	IT Infrastructure	Private Subnet	Vulnerability Assessments
Business Continuity Plan	Containers	Key Performance Indicator (KPI)	Public Wi-Fi	5G Readiness
Cameras/Image Sensors	Cybersecurity Policy	Local Digital Platform	Real-time Data Collection	
Capacity	Cybersecurity Strategy	Local Digital Twin	Redundancy	
Cloud	Data	Low Latency	Reliability	
Cloud Compute	Data Analysis	Monitoring	Scalability	
Cloud Storage	Data Analysis Tools	Network	Security	
Compute	Data Backup & Retention Tools	Network Adaptability	Security Advanced Measures	
Compute Cleanup	Data Centralisation	Network Capacity	Security Patch	
Compute Policies & Procedures	Data Collection & Management	Network Capacity & Effectiveness	Security Segmentation	
Compute Provisioning	Edge Computing	Network Connectivity	Serverless Computing	
Computing Adv. Technologies	Effectiveness	Network Coverage	Smart City Office	
	Fiber Optic	Network Redundancy	Storage	
	General Data Protection Regulation (GDPR)	Network Reliability	Storage Cleanup	
		On-Premises Compute	Storage Provisioning	

Journey for Participating Cities

KICK OFF ACTIVITIES



1:1 sessions
between cities
and the *CGAs,
or to a common
Info Session

*LORDIMAS



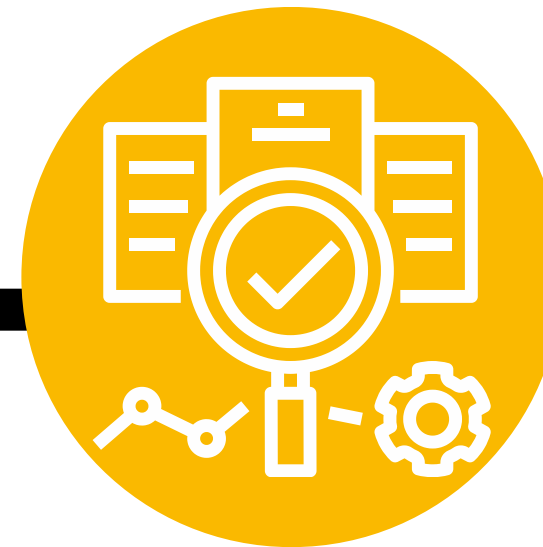
Get to know your
overall digital
maturity

STRATEGY ASSESSMENT



Assess in more
detail your
overall digital
vision and
strategy

IT INFRASTRUCTURE ASSESSMENT



Evaluate the
technical
maturity of the IT
infrastructure

DIGITALISATION ROADMAP

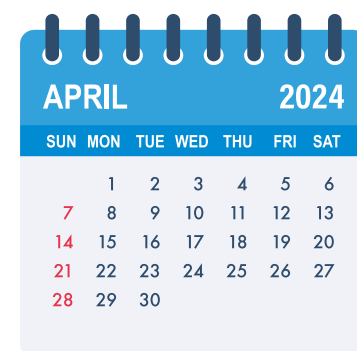


Get your digital
transformation
roadmap tailored to
your
city/community
needs

PROCUREMENT SUPPORT



Receive support
to identify
procurement
needs and
templates



The helpdesk is live and you can express your interest in participating starting today!

*CGAs (City Guiding Agents)

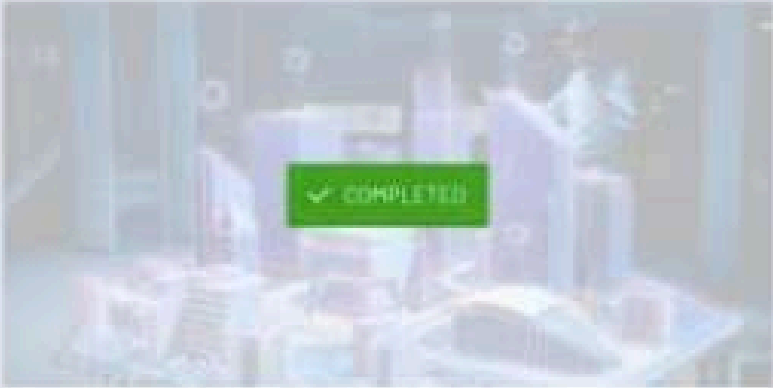
*Local and Regional Digital Maturity Assessment


Procurement Helpdesk Live Demo


LIVING-IN.EU DIGITAL TOOLBOX


Welcome Arthur Kenjora Click here to [Start →](#) your next LDT assessment


Your City Journey 1/3 completed




 LORDIMAS Assessment [View →](#)




 Strategy Assessment [Continue →](#)




 IT Infrastructure Assessment [Continue](#)

Procurement Helpdesk Support Service



Get support →



Knowledge Centre →

Digitalisation Roadmap

Reference Roadmap



The **reference roadmap outlines key milestones and best practices for a project**, providing a standardized framework for development and implementation, applicable to various scenarios as it remains use-case agnostic



The **time presented in the reference roadmap is an estimation**, but can vary depending on the general administration of each city

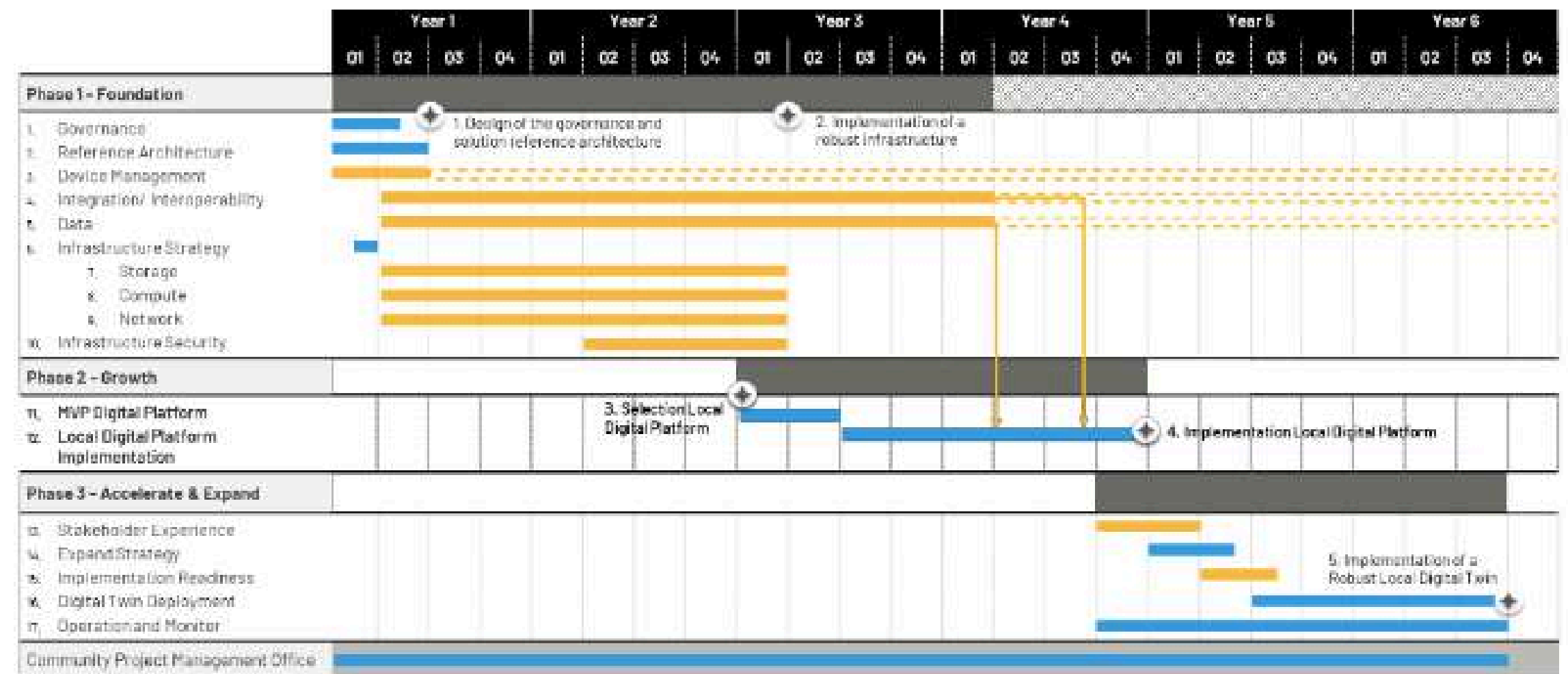


The **roadmap does not consider the time needed for contract negotiations** and RFP discussions



In the reference roadmap overlaps occur, because certain capabilities and enablers, while **having interdependencies, don't strictly rely on each other's conclusion** since they allow for simultaneous development

Overview of capabilities and enablers and correspondent reference timeline



Note: The overlap represented in the reference roadmap illustrates that during the implementation of the local digital platform, both integration and data capabilities should be addressed. It is essential to ensure these processes are coordinated with the local digital platform during its implementation.

Digitalisation Roadmap

3

Device Management

The Device Management capability entails efficient deployment, maintenance, and integration of IoT devices to enhance overall operational efficiency within the smart community ecosystem.



Main Initiatives

Device Management Strategy

- 1| Review the device management strategy, including lifecycle management framework, protocols and APIs, and the KPIs
- 2| Review your current IoT devices, and see if they are a good fit based on the strategic priorities and identified requirements

Device Installation

- 1| Review current IoT devices and check their integration the current network and compliance with the policies based on your device management strategy and IT Infrastructure strategy

Device Platform

- 1| Acquire and implement the chosen IoT Platform based on the IoT strategy, strategic priorities and IT Infrastructure strategy

Foundation

Growth

Accelerate & Expand

Calendar Estimate

Year 1				Year 2				Year 3			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
██████████				██████████				██████████			
Year 4				Year 5				Year 6			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
██████████				██████████				██████████			

Procurement Objects*

- IoT devices
- IoT platform

*The procurement objects provided are preliminary versions and subject to further refinement

Interdependencies

Not applicable

Procurement templates

Template (Outline Example)

OUTLINE

(1/2)

1. FOREWORD
2. Tender documents, requests for clarification and communication
3. SCOPE AND DESCRIPTION OF THE PROCUREMENT
 - 3.1 Contracting authority: who is the buyer?
 - 3.2 Subject: what is this call for tenders about?
 - 3.3 Lots: is this call for tenders divided into lots?
 - 3.4 Description: what do we want to buy through this call for tenders?
 - 3.5 Place of performance: where will the contract be performed?
 - 3.6 Nature of the contract: how will the contract be implemented?
 - 3.7 Volume and value of the contract: how much do we plan to buy?
 - 3.8 Duration of the contract: how long do we plan to use the contract?
 - 3.9 Options and renewals
 - 3.10 Price revisions
4. GENERAL INFORMATION ON TENDERING
 - 4.1 Legal basis: what are the rules?
 - 4.2 Entities subject to restrictive measures and rules on access to procurement: who may submit a request to participate/tender?
 - 4.3 Registration in the Participant Register: why register?
 - 4.4 Ways to submit a request to participate/tender: how can economic operators organise themselves to submit a request to participate/tender?
 - 4.4.1 Joint requests to participate/tenders
 - 4.4.2 Subcontracting
 - 4.4.3 Optional inspections
5. EVALUATION AND AWARD
 - 5.1 EVALUATION OF OFFERS
 - 5.1.1 Step 1: Exclusion criteria of technical offer
 - 5.1.2 Step 1: Selection criteria of technical offer
 - 5.1.3 Step 1: Exclusion criteria of economic offer
 - 5.1.4 Step 1: Selection criteria of economic offer
 - 5.1.5 Method for the calculation of scores



(2/2)

- 5.2 AWARDING OF OFFERS
 - 5.2.1 Committee for evaluation and awarding
 - 5.2.2 Step 2: Compliance with the conditions for participation and minimum requirements specified in the procurement documents
 - 5.2.3 Step 2: Award criteria
 - 5.2.4 Award (ranking of tenders)
 6. FORM AND CONTENT OF THE SUBMISSIONS
 - 6.1 Form of the submissions: how to submit the request to participate/tender?
 - 6.2 Content of the submissions: what documents to submit with the request to participate/tender?
 - 6.2.1 Administrative offer
 - 6.2.2 Technical offer
 - 6.2.3 Economic offer and duration (warranty extension - if applicable)
 - 6.2.4 Verification of anomalies of the offers
 - 6.2.5 Tender awarding and contract signing
 - 6.3 Signature policy: how can documents be signed?
 - 6.4 Confidentiality of tenders: what information and under what conditions can be disclosed?
 - 6.5 Code of Conduct
 - 6.6 Access to the records
 - 6.7 Settlement of disputes
 - 6.8 Personal data processing
- APPENDIX: LIST OF REFERENCES
- ANNEXES
- Annex 1.1 List of documents to be submitted with the request to participate or during the procedure (step 1)
- Annex 1.2 List of documents to be submitted with the tender (step 2)
- Annex 2. Declaration on Honour on exclusion and selection criteria
- Annex 3. Agreement/Power of attorney
- Annex 4. List of identified subcontractors and proportion of subcontracting
- Annex 5.1. Commitment letter by an identified subcontractor
- Annex 5.2. Commitment letter by an entity on whose capacities is being relied
- Annex 6. Financial tender form
- Annex 7. Technical Specifications (Consult separate dedicated document)

European initiative to support this step



Financial Commitment

Fully funded by the European Commission, this initiative covers all expenses related to support activities and assessments. It's important to note that while the costs for these preparatory stages are fully covered, **there isn't direct funding available for the actual implementation of the solutions**. Cities and communities looking to fund the implementation phase are **advised to explore the DEP (Digital Europe Programme) grants and funding opportunities**.



Benefits

- Online support services to guide your community in developing and realising its **digital strategy**.
- Expert guidance and validation of digital projects, progress and alignment with **EU standards and best practices**.
- Identification of procurement needs to advance the digitalisation roadmap implementation, and access to tailored procurement guidelines and templates.
- Tailored **advisory** services to assist your city in assessing technological readiness for implementing MIM-compliant local data platforms.
- A customised **digitalisation roadmap**, detailing the necessary steps and procurement strategies to enhance your technical capabilities.



Recommended expertise

Strategy & decision-making

- Innovation Manager (Chief Innovation, Chief Digital or Chief Technology Officer, Smart City Manager or similar)
- Relevant city departments with strategic and decision-making capacity
- Project management office (PMO)
- Thematic experts

IT/Data/Architecture

- Data Manager (Chief Data Manager, IT manager, Data Steward, or similar)
- ICT Manager and Systems Specialist
- IT Architect

IT Procurement

- Infrastructure Provider

Slide to present the speaker to explain their experience in the helpdesk

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The Journey

WHY



Discovery Phase

Unlocking the potential of digitalisation

Learn about Local Digital Twins' foundational concepts, their role in urban decision-making, and how they support the EU Green Deal's sustainability objectives through practical examples and case studies.

HOW



Planning Phase

Laying the foundation of your digital journey

Learn about LORDIMAS for assessing digital maturity and developing an implementation roadmap to advance digitalisation, including the role of open data platforms and procurement support.

SUPPORT



Empowerment Phase

Empowering your digital transformation

Explore ecosystems and funding opportunities to accelerate your community's digital transformation through collaboration and financial support.

A person in a light blue shirt is holding a tablet. The tablet screen shows a vibrant city skyline at night, with several skyscrapers illuminated. Overlaid on the city is a white, glowing network of lines connecting various points, symbolizing digital connectivity or a smart city ecosystem. The background of the entire image is a blurred cityscape under a hazy, orange-tinted sky.

SUPPORTING ECOSYSTEMS AND COLLABORATIONS



Luca Kerscher

Living-in.EU | EuroCities

Information about the speaker

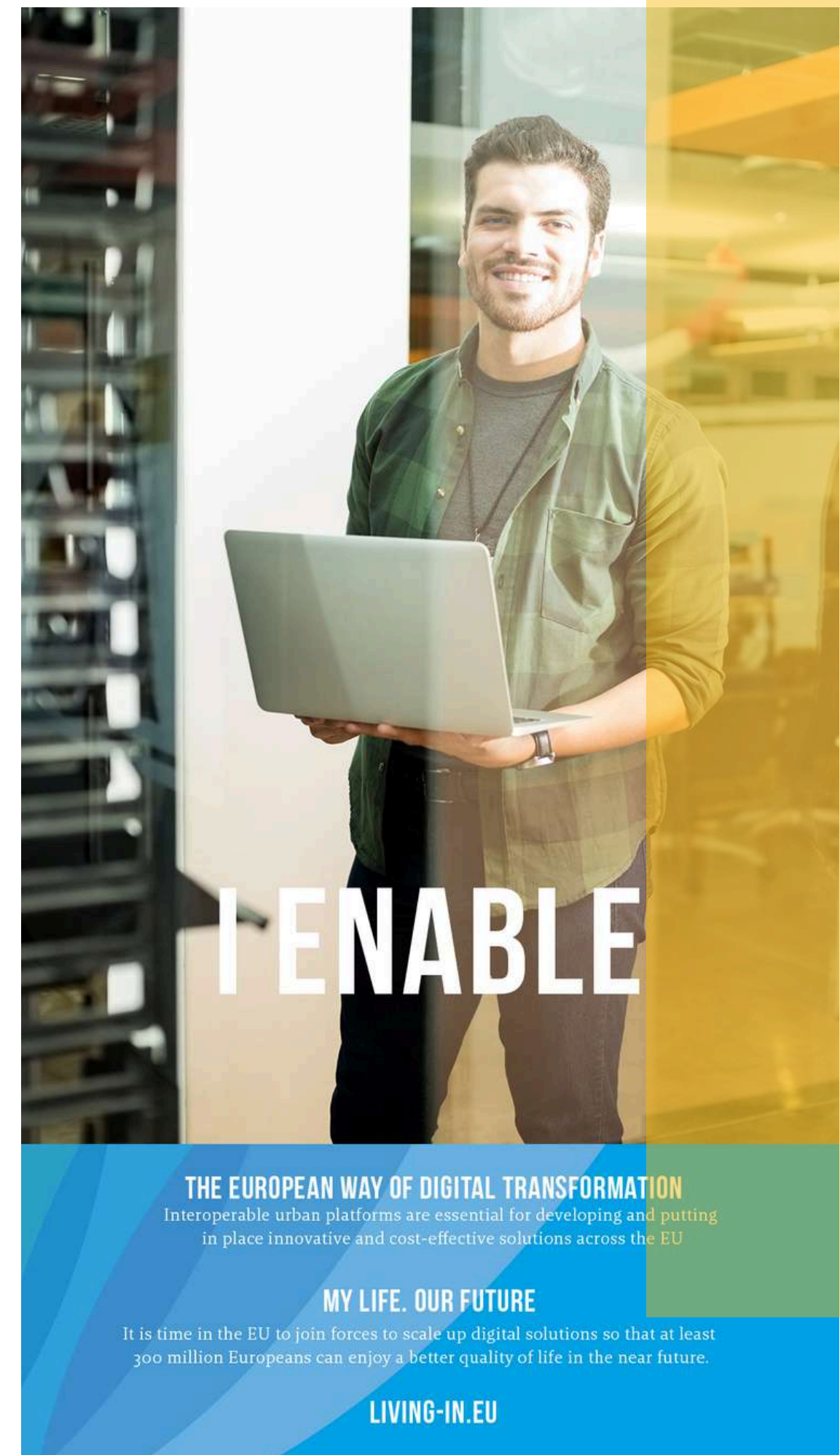
Invitation to join Living-in.EU

We are pleased to invite you to support the Living-in.EU movement, especially if you are already participating in the Online Procurement Helpdesk.

The procurement helpdesk is an integral component of the Living-in.EU initiative, and your city stands to benefit significantly from joining this collaborative effort!



Lithuanian Green Municipalities can facilitate your participation and support you in using the resources offered!



SET UP YOUR DIGITAL TWIN STRATEGY (3 main initiatives)

Initiative 1



**CLIMATE NEUTRAL
CITIES INITIATIVE**

Initiative 2



LIVING-IN.EU MOVEMENT

Initiative 3



**FUNDING
OPPORTUNITIES**

Citiverse EDIC (European Digital Infrastructure Consortium)

WHO

Signatory Member States: Spain, Slovenia, Estonia, Latvia, Croatia, Portugal, France, Czech Republic , Luxembourg, Belgium, Slovakia, Italy.

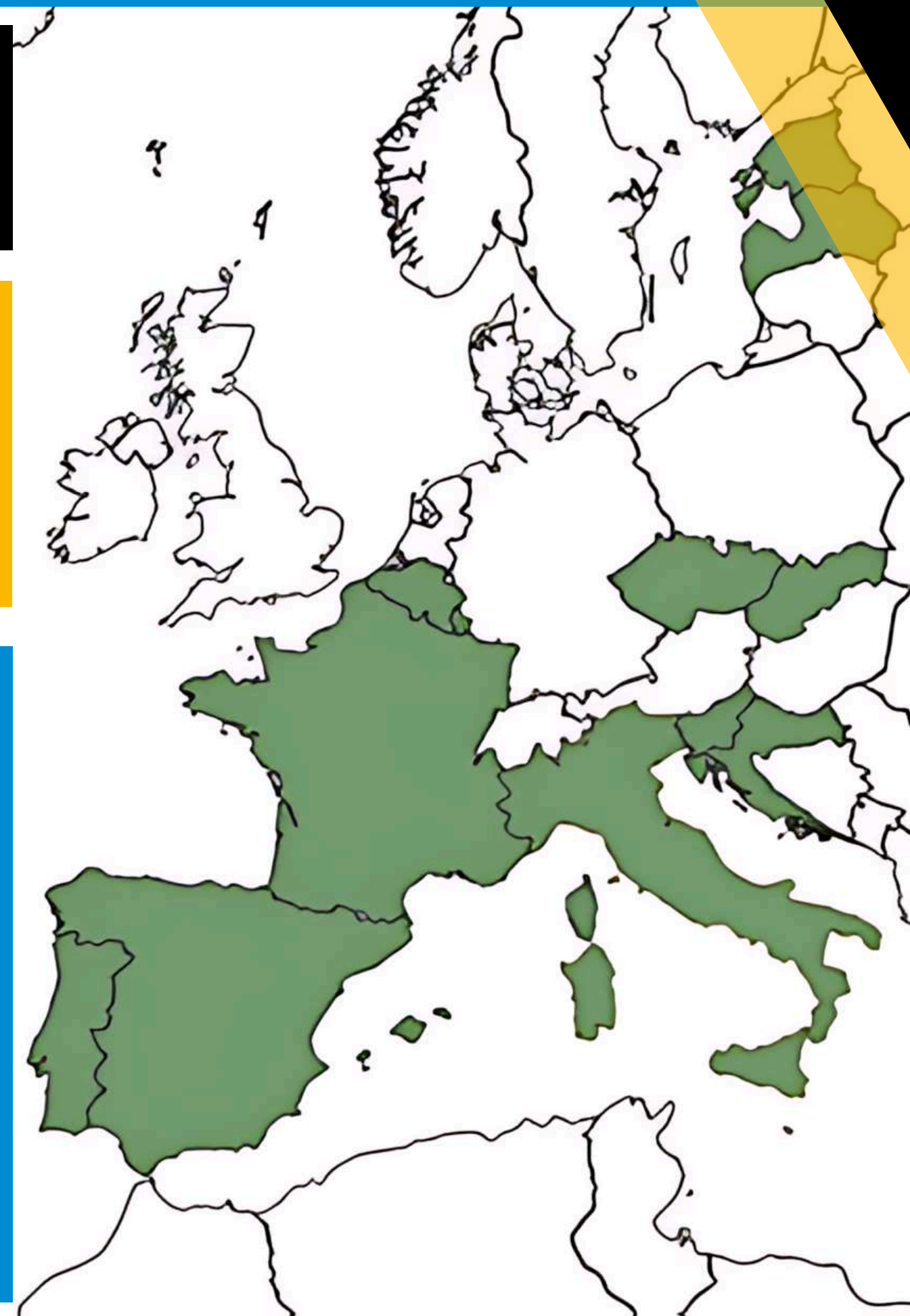
WHAT

Common tools: EU LDT toolbox, Data and services interoperability, Reuse of components & best practices.

Joint tenders: Economies of scale, Open standards, Certification.

WHY

- To create a common & sustainable European infrastructure.
- To go beyond research.
- To avoid repetitions.
- To deploy large-scale innovative projects and technologies.
- To provide recommendations for future R&D&I in SCC.
- To create a solid EU ecosystem on SCC.



Citiverse EDIC (European Digital Infrastructure Consortium)



EU LDT Toolbox: An advanced set of tools to enable digital twins benefits on EU cities.

3 simple steps to enable the benefits of a Digital Twin to support your decision-making and planning processes effectively.

Being implemented and will start the Pilot Program with 6 European cities in January 2026



OASC (Open and Agile Smart Cities)

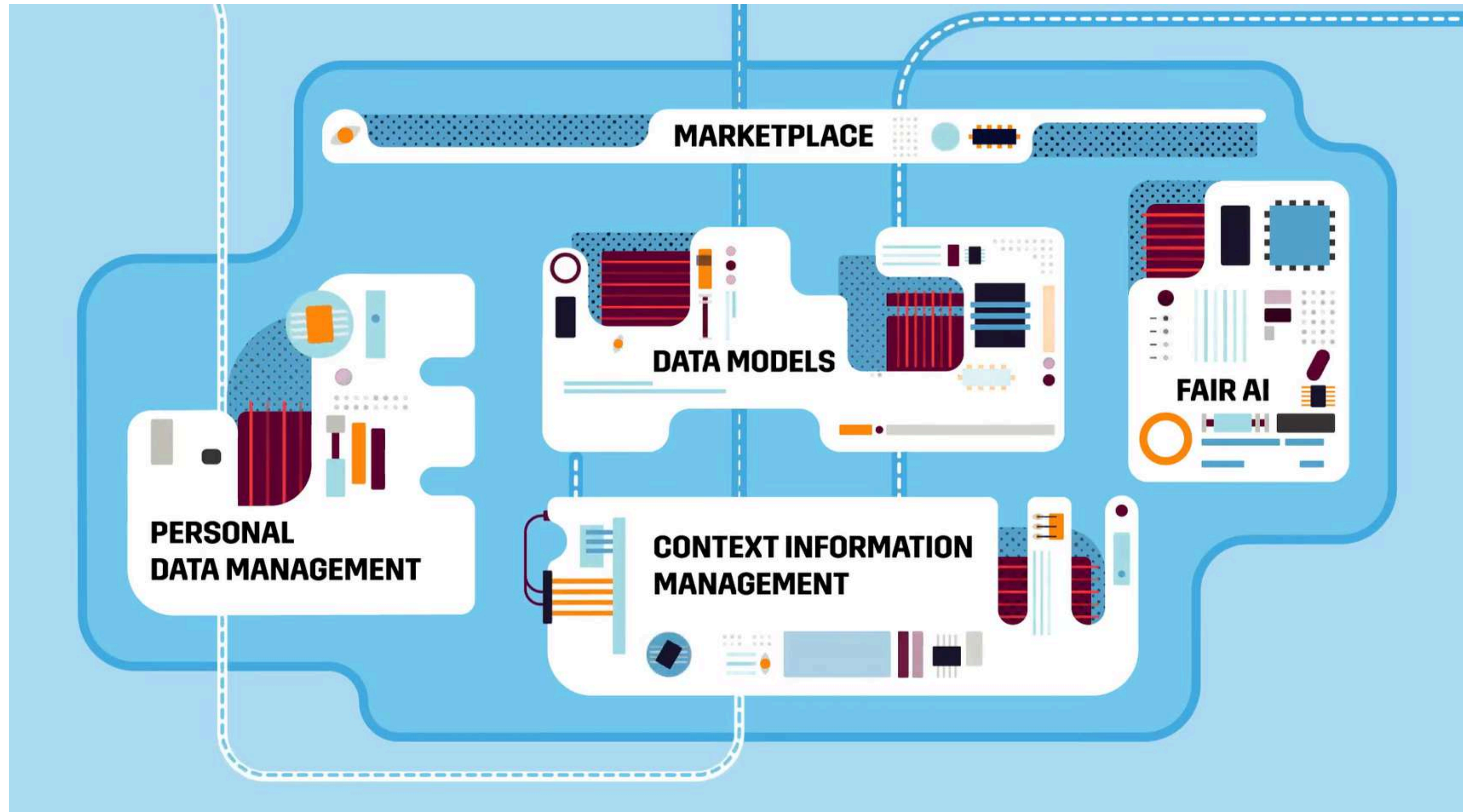
- Access to regional, national, European, and international programs
- Access to projects through project management services
- Knowledge exchange through digital meetings on EU goals and programs
- Capacity building through interactive workshops, academies, and certified training
- Technical tools and practical solutions, such as MIM, standards, and technical specifications
- Support for members through events to expand your network and present your approaches, tools, and policies

www.OASC.org



OPEN & AGILE SMART CITIES & COMMUNITIES

OASC (Open and Agile Smart Cities)





Q&A



European
Commission

Call to Action: Reminder

1



**Prepare your strategy to
implement Local Digital
Twins**

2



**Join the Living-in.EU
movement**

3



**Evaluate your digital
maturity with LORDIMAS**

4



**Discover the MIMs Plus to
start building your Open
Data Architecture
Framework**

5



**Apply to the EU Mission
Cities: Twin Cities
Programme**

6



**Express your interest to
participate to the Online
Procurement Helpdesk**

DISCOVER

Online Training 1

03.12.2024

PLAN

Online Training 2

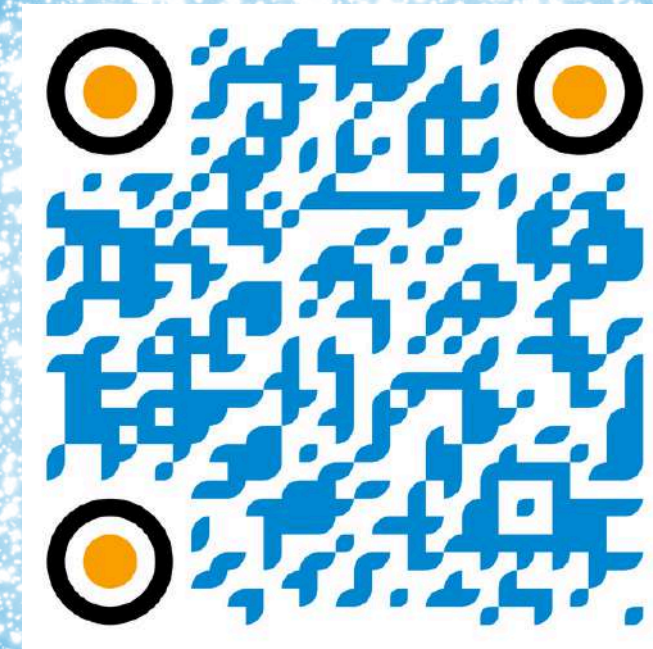
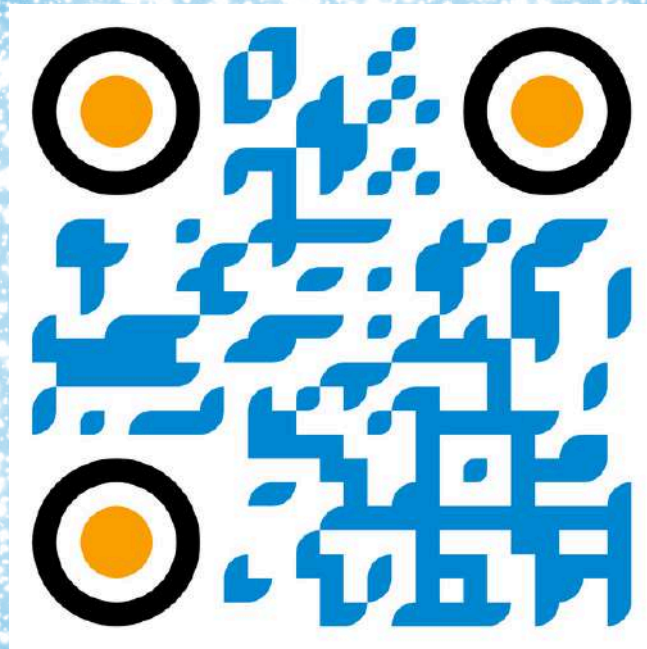
04.12.2024

EMPOWER

Online Training 3

11.12.2024

We value your feedback!



“

Innovation is the engine of growth. It provides solutions to the pressing challenges we face – from climate change to digitalisation – and helps us build a sustainable future for all.

-Ursula von der Leyen

STEIGERUNG DES BEWUSSTSEINS UND DER BEREITSCHAFT ZUR DIGITALISIERUNG DEUTSCHER GEMEINDEN

In Zusammenarbeit mit



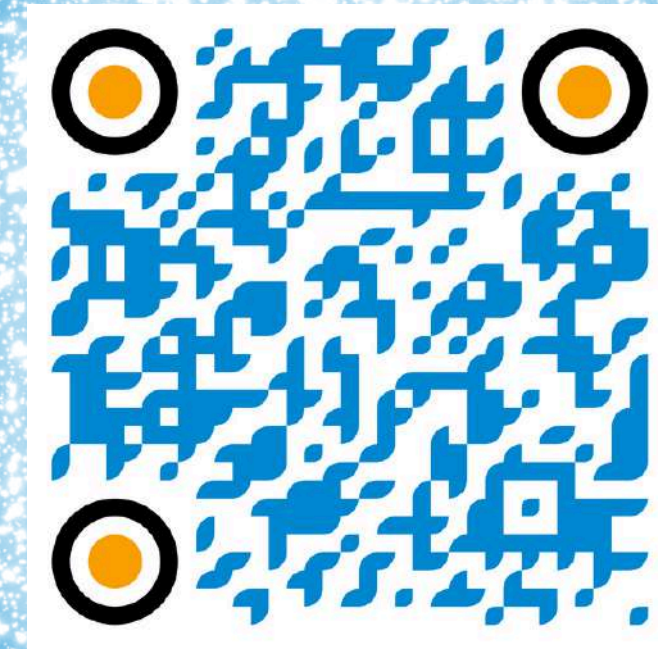
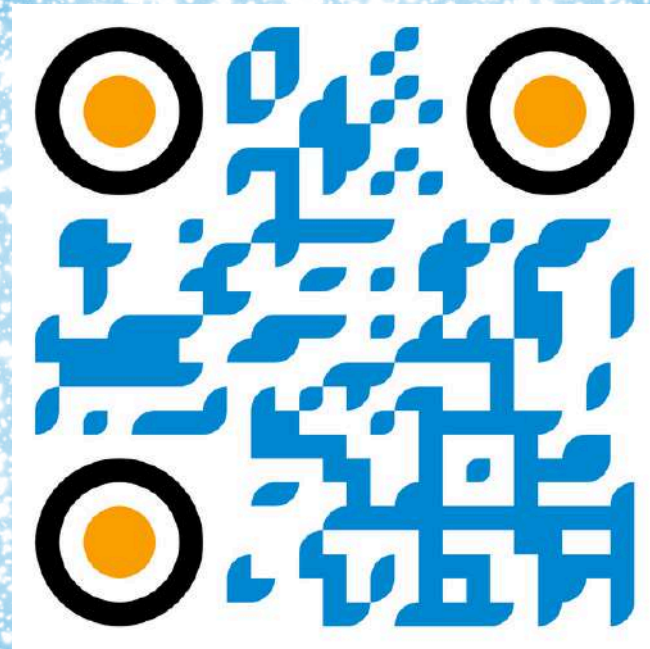
Federal Institute for
Research on Building,
Urban Affairs and
Spatial Development

within the Federal Office for
Building and Regional Planning



Danke!

We value your feedback!



<https://gqr.sh/VHKm>



<https://gqr.sh/ukbL>

