Zvyšovanie povedomia o digitalizácii a pripravenosti slovenských samospráv na digitálnu transformáciu

v spolupráci s:

MINISTERSTVO INVESTÍCIÍ, REGIONÁLNEHO ROZVOJA A INFORMATIZÁCIE SLOVENSKEJ REPUBLIKY

Fáza 1: Plánovanie

3. jún 2025

European Commission | serendipity | Capgemini | OASC OPEN & AGILE SMART CITIES & COMMUNITIES | technopolis group | imec embracing a better life | EUROCITIES | ICLEI Local Governments for Sustainability EUROPE | Deloitte.

Agenda školenia:

Slovensko

Fáza 1: PLÁNOVANIE

DIGITALIZAČNÉ SCHOPNOSTI Ako odomknúť potenciál digitalizácie

- Dozviete sa viac o iniciatíve Cities Mission a dostupných nástrojoch pre tých, ktorí sa chcú zapojiť
- Posúďte svoju digitálnu úroveň pomocou nástroja LORDIMAS
- Navrhnite si vlastný digitálny plán (roadmap) na základe svojich potrieb.
- Zoznámte sa so šablónami a štandardmi verejného obstarávania EÚ

03.06.2025 **10:00**

Fáza 2: PRÍPRAVA

DIGIÁLNE DVOJČATÁ Ako nastaviť svoju IT infraštruktúru

- Porozumejte, čo jsú digitálne dvojčatá a akú hodnotu môžu priniesť
- Získajte informácie o potrebnej infraštruktúre a podpore EÚ pre jej budovanie
- Prípadové štúdie z miest, ktoré už využívajú digitálne dvojčatá
- Oboznámte sa s nástrojom EU Local Digital Twin Toolbox

04.06.2025 **10:00**

Fáza 3: POSILNENIE

PODPORA A SIEŤOVANIE Ako financovanie a podpora komunít podporujú váš rast

- Získajte informácie o Living-in EU, komunitnej podpore a možnostiach financovania
- Spoznajte nástroje a siete, ktoré vám pomôžu navrhnúť a podať váš projekt

09.06.2025 **10:00**

European Commission

Prehľad agendy

Fáza 1: Plánovanie – Ako odomknúť potenciál digitalizácie

3. jún 2025 10:00

ČAS	TÉMA	REČNÍK
10:00 - 10:10	**Úvod**	**Andrea Petrušová - MIRRI SR**
10:10 - 10:30	**Dosahovanie cieľov dekarbonizácie s podporou Cities Mission Platform**	**Eugenia Mansutti**- *Eurocities*
10:30 - 10:45	**Posúdenie vašej digitálnej vyspelosti pomocou LORDIMAS**	**Paresa Markianidou** - *Technopolis Group*
10:45 - 11:00	**Vytvorenie vášho digitalizačného plánu (digitalization roadmap)**	**Douwe Schoondorp**- *Deloitte*
11:00 - 11:10	**Verejné obstarávanie pre smart komunity: EU šablóny a metodiky**	**Eliana Gerardi** - *Intellera*
11:10 - 11:20	**Otázky a odpovede**	**Andrea Petrušová - MIRRI SR**
11:20 - 11:30	**Záver**	**Andrea Petrušová - MIRRI SR**

DOSAHOVANIE CIEĽOV DEKARBONIZÁCIE S PODPOROU CITIES MISSION PLATFORM

European Commission

NET ZERO CITIES

EU MISSION PLATFORM

CLIMATE NEUTRAL AND SMART CITIES

Funded by
the European Union

Eugenia Mansutti

Senior Policy and Project Coordinator at Eurocities

Coordinating the work with new cities joining the Cities Mission Platform

Funded by
the European Union

Objectives

- Present the 100 Climate Neutral and Smart Cities Mission
- Understand how cities that are not yet part of the Mission can take part
- Learn about the support the Mission Platform, currently managed by the NetZeroCities project, will offer to cities

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Index

- The 100 Climate Neutral and Smart Cities Mission
- Who can join?
- Expanding Mission Platform support services:
  - Online & learning
  - Peer – EU
  - Peer - national

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We are on a Mission!

Funded by
the European Union

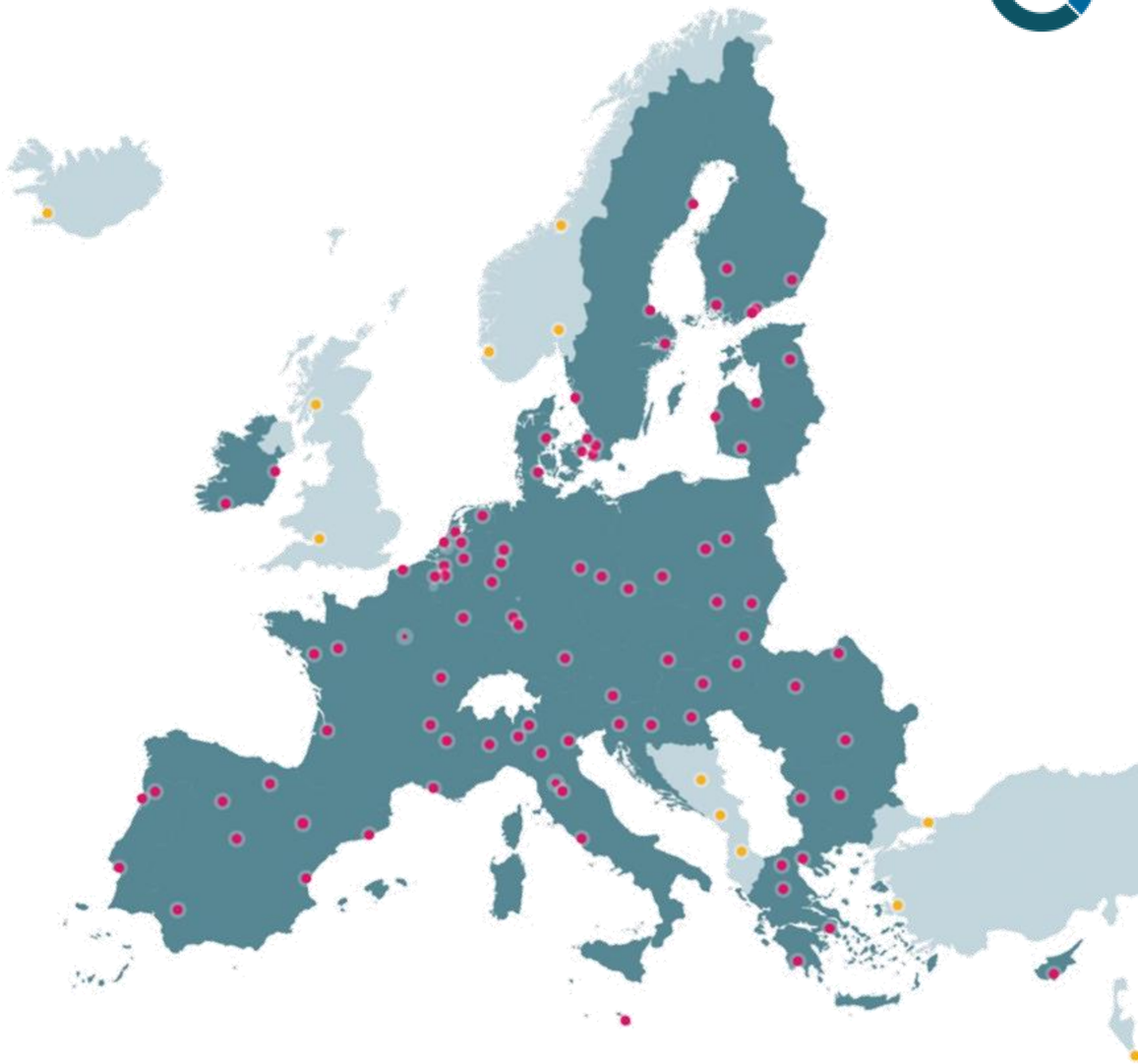
Supporting the EU Mission for “Climate Neutral and Smart Cities by 2030”

The EU has launched a Mission “100 Climate-Neutral and Smart Cities by 2030”.

The objectives of the Mission are

- to achieve **100 climate-neutral and smart European cities by 2030.**
- to ensure that these cities act as experimentation and innovation hubs to **enable all European cities to follow suit by 2050**.

NetZeroCities, coordinated by Climate-KIC, currently manages the Platform to support the Mission. We will help Europe in its ambition to achieve climate neutrality by providing cities with **world-class expertise and services** tailored to their needs.



100 EU cities & **12** cities from
Horizon Europe Associated Countries

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the European Union

Supporting Cities towards Climate Neutrality

Funded by the European Union

Beyond the 112:
achieving the Mission's second objective

Aims of the Mission

The Cities Mission will involve local authorities, citizens, businesses, investors as well as regional and national authorities to

1. Deliver 100 climate-neutral and smart cities by 2030

2. Ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050

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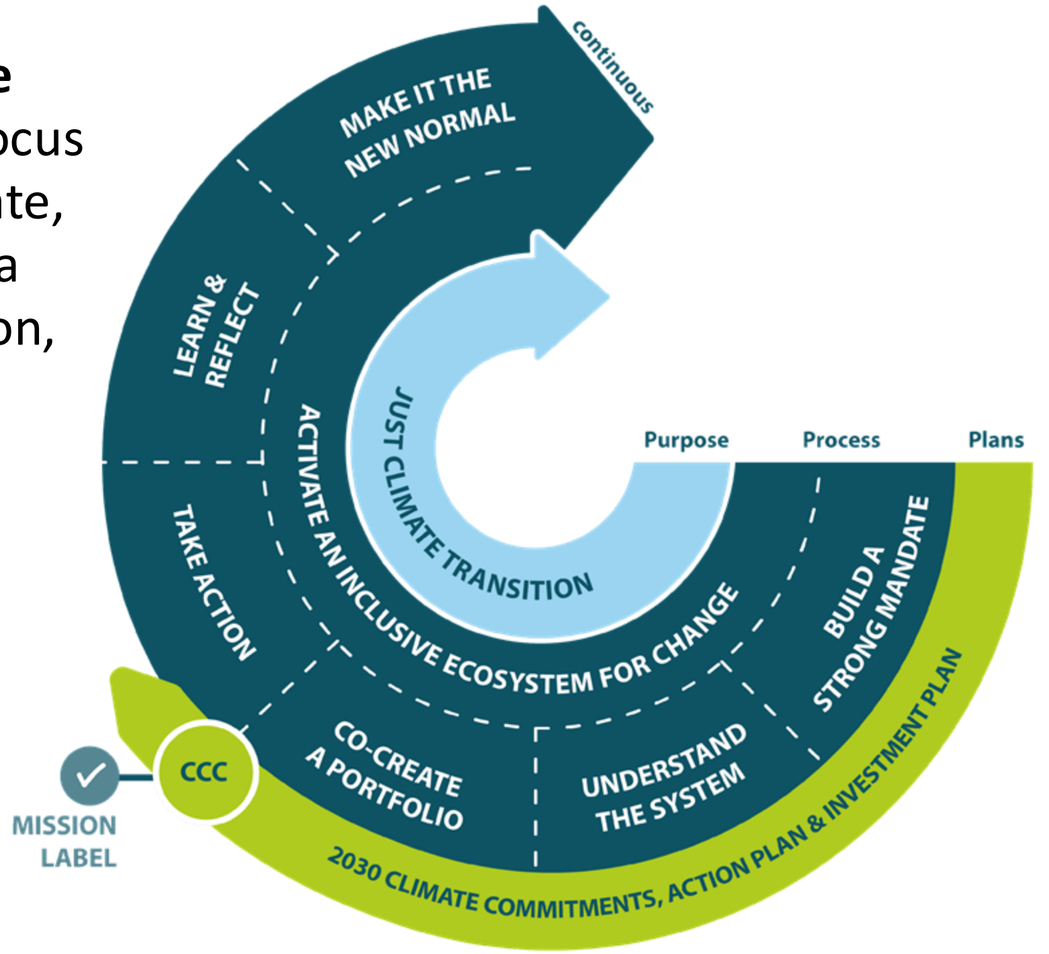
The Climate Transition Map

A systemic transition pathway

Learning from the mission's approach !

The journey to change for climate-neutrality will be an **iterative process**, operating at different levels at the same time. It will focus on **building 7 core elements for the transition**: a strong mandate, a good understanding of the system, a strong local ecosystem, a coherent portfolio, transformative action, learning and reflection, normalised 'net zero' practice.



Important to keep in mind:

- This journey is **inclusive** and **iterative**
- **(Co-)creating and testing**
- **Quick wins and experimentation**

See the portal for more details here.

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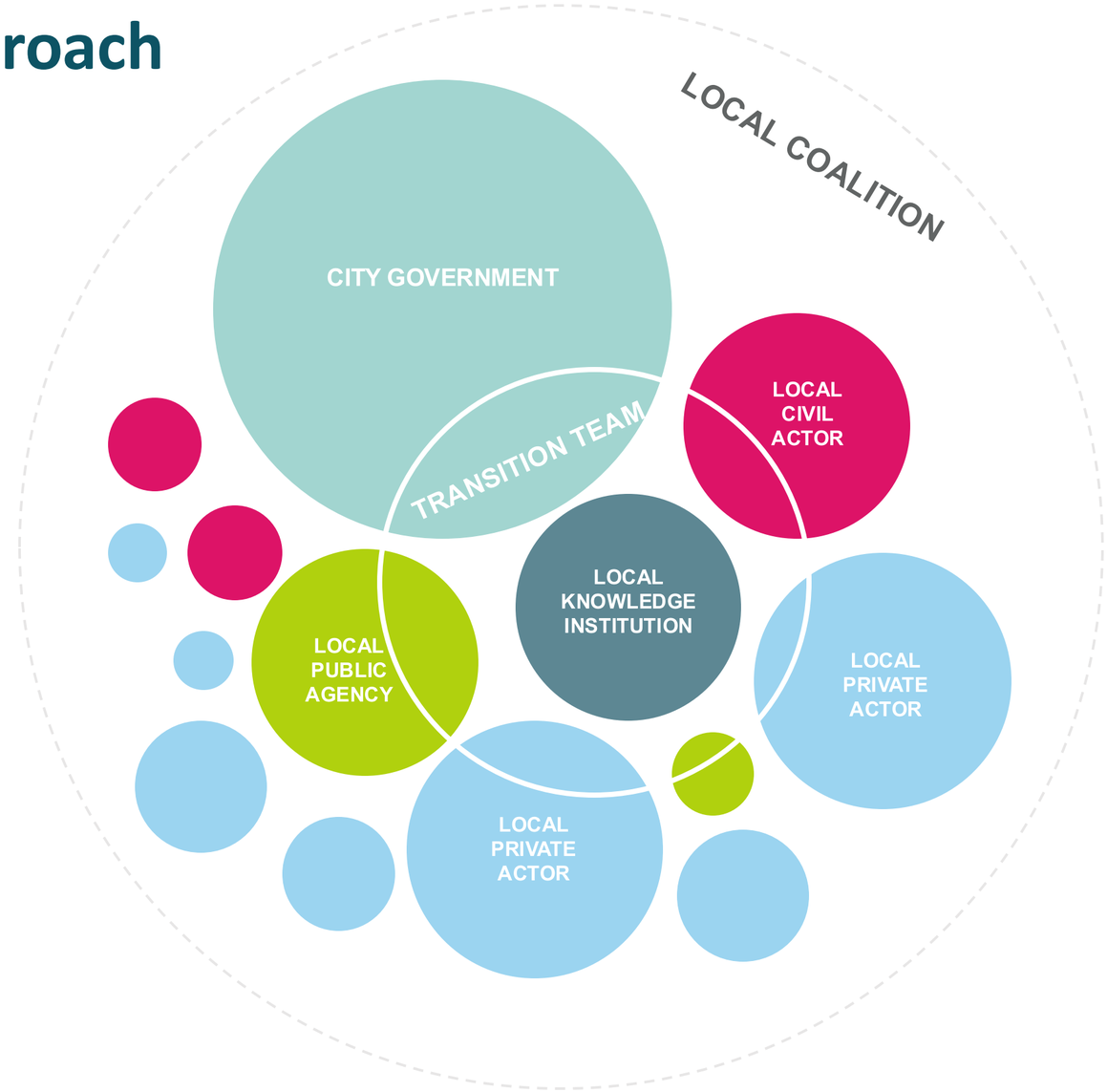
Key elements of the Mission's approach
Deep collaboration

To transform entire value chains and emission domains the collaboration and coordinated action of **multiple actors across sectors** will be needed - public sector, private sector, knowledge institutions, citizens and civil sector, media.

This is possible but needs a confident and skilled team at the centre of this coalition to support and coordinate all actors in playing this difficult part that is collaborating for transformation. It needs **a Transition team to orchestrate the process**.



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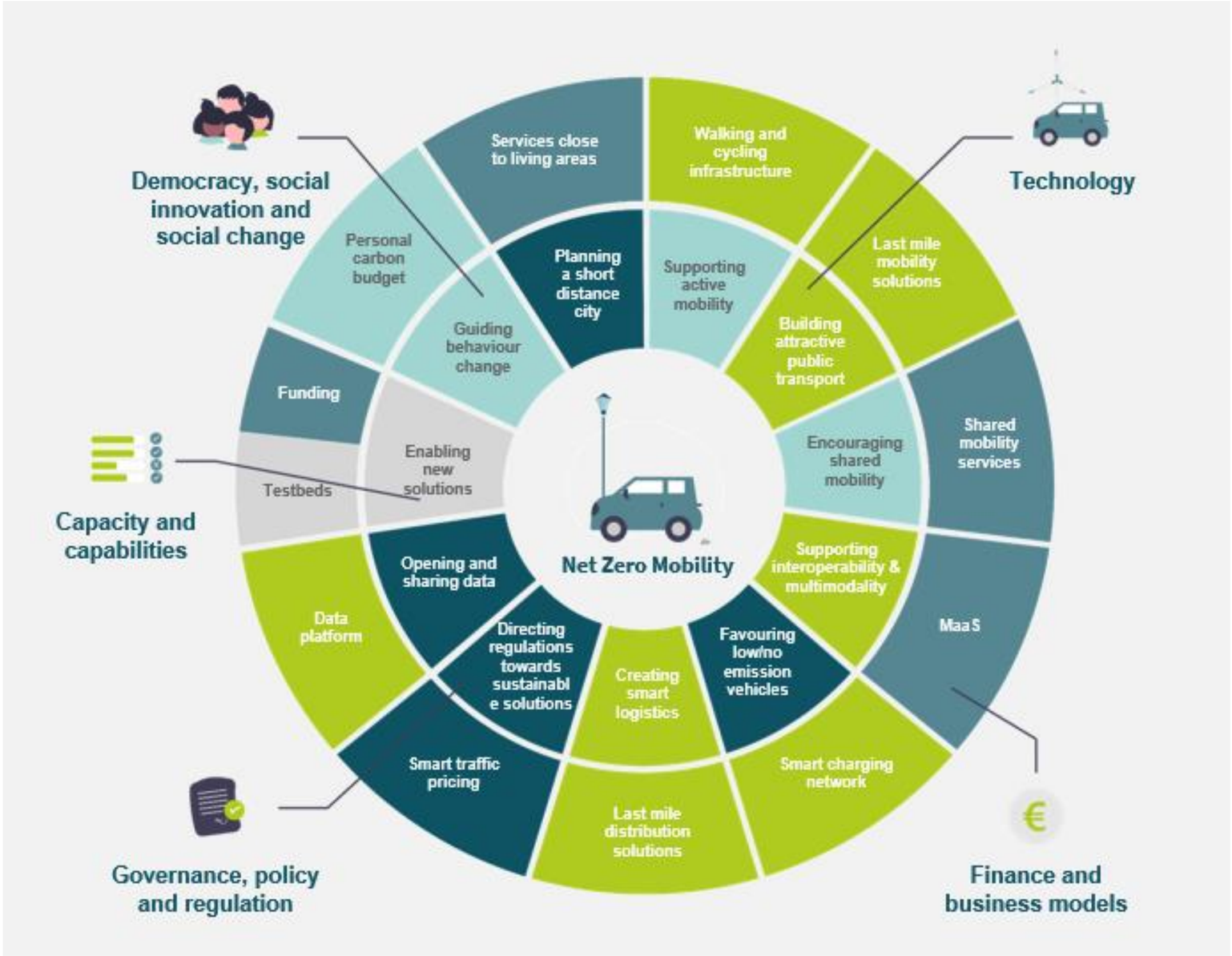

Key elements of the mission's approach: Portfolios

Portfolios of actions will be needed to act on systemic barriers **addressing simultaneously several levers of change**. They will not be focused on a single solution but **act on several elements of the problem at the same** time to trigger mutually reinforcing dynamics. The idea is also to look more broadly at the actions' impacts on the city, including **co-benefits**, but also the **trade-offs needed**, both in short and longer term. **Ensuring the integration of a portfolio's actions in such way that they create pathways decarbonisation** will require continuous attention from the dedicated **Transition team** and the coalition.

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Who can join?

Who? All cities wanting to learn and embark on a journey towards climate neutrality, at any stage of their journey. Depending on their climate commitment, they will have access to different levels of support.

What? Tools, resources, and approaches developed by Mission Cities, including the Climate Transition Map and exclusive peer learning opportunities (site visits, twinnings, learning courses)

How? A mix of online and in person learning activities, starting from the Portal and including online groups, study visits, twinning with Mission Cities, and engagement at national/regional level.

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Expanding Mission Platform support services

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Concrete Offer: The Mission Platform as an accelerator of climate action for all cities wanting to become climate neutral

- Planning and financing tools
- Self-Assessment Tool
- Support pathways and inspiring examples
- Workshops and courses (also giving academic credits)

Online & learning

- Three Programmes:
  - Online peer groups
  - Study visits
  - Twinnings

Peer – EU

- National spaces for debate and training (incl. events – political & technical)
- Mobilisation of national stakeholders
- National Platforms

Peer – National

Dedicated helpdesk

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- Planning and financing tools
- Self-Assessment Tool
- Support pathways and inspiring examples
- Workshops and courses (also giving academic credits)

Online & learning

Online & learning:
Six Climate Neutrality Support Pathways

Curated lists of resources and tools useful for cities wanting to transition towards climate neutrality

Objectives:

- Address the needs highlighted in the survey by respondent cities;
- Inform the design and delivery of services for new cities through the Mission Platform
- Guide cities in their climate neutrality journey through the Mission Platform tools, resources and services.

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Online & learning:
Six Climate Neutrality Support Pathways

Curated lists of resources and tools useful for cities wanting to transition towards climate neutrality

1. **Climate neutrality foundations and mission approach**
2. **Inclusive ecosystem for change and social Innovation**
3. **Monitoring and Learning**
4. **Technological Solutions and Innovation**
5. **Policy and Governance**
6. **Finance and Business Models**

Online by 15 October 2024!

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the European Union

- Planning and financing tools
- Self-Assessment Tool
- Support pathways and inspiring examples
- Workshops and courses (also giving academic credits)

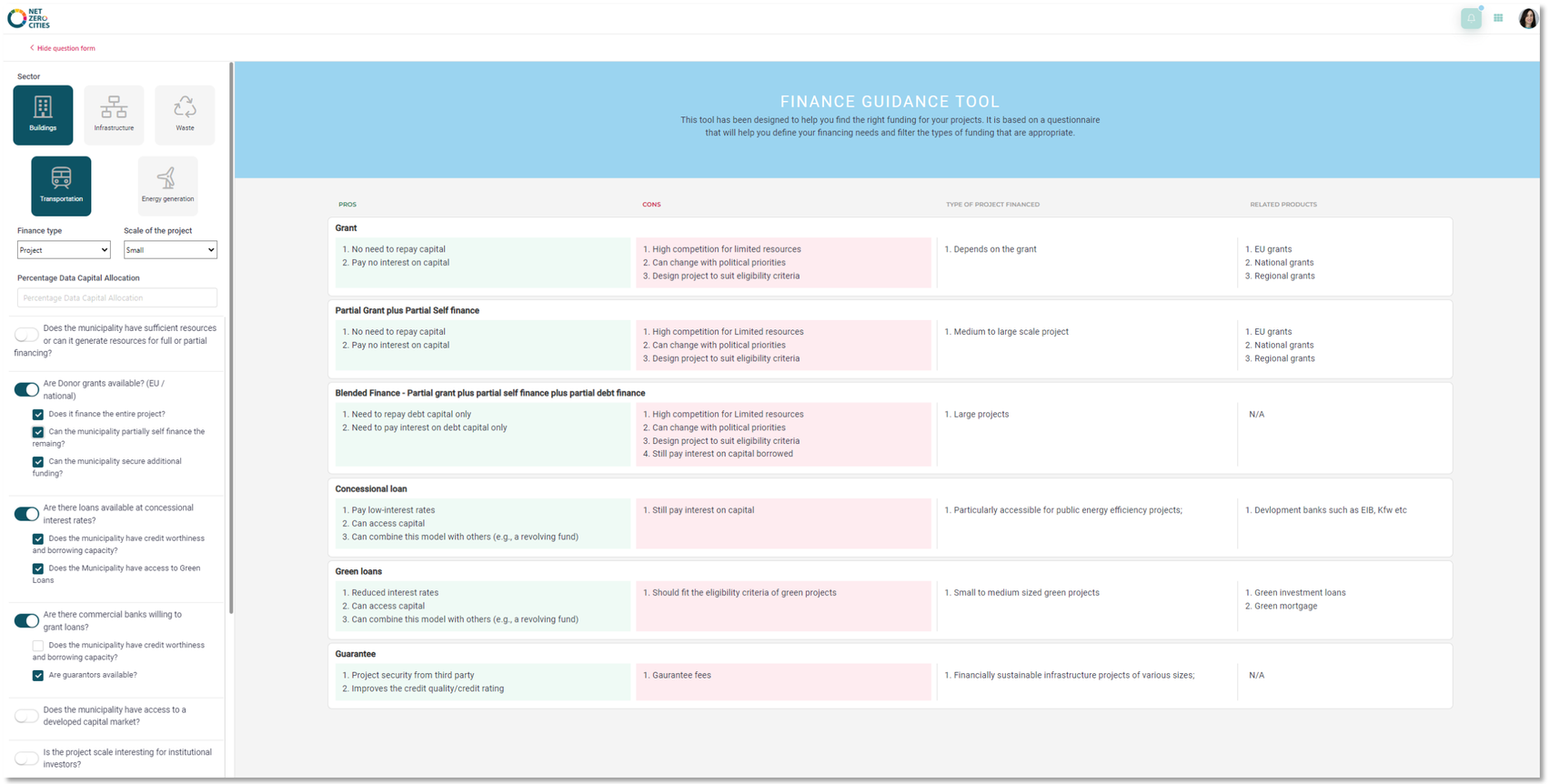
Online & learning

Finance Guidance Tool

This tool **supports cities as they identify finance options** and **supports their investment planning**, based on a decision matrix which helps define needs and identify a range of options appropriate to the city's circumstances.

https://netzerocities.app/financeGuidanceTool

Trainings for cities on how to use the tool

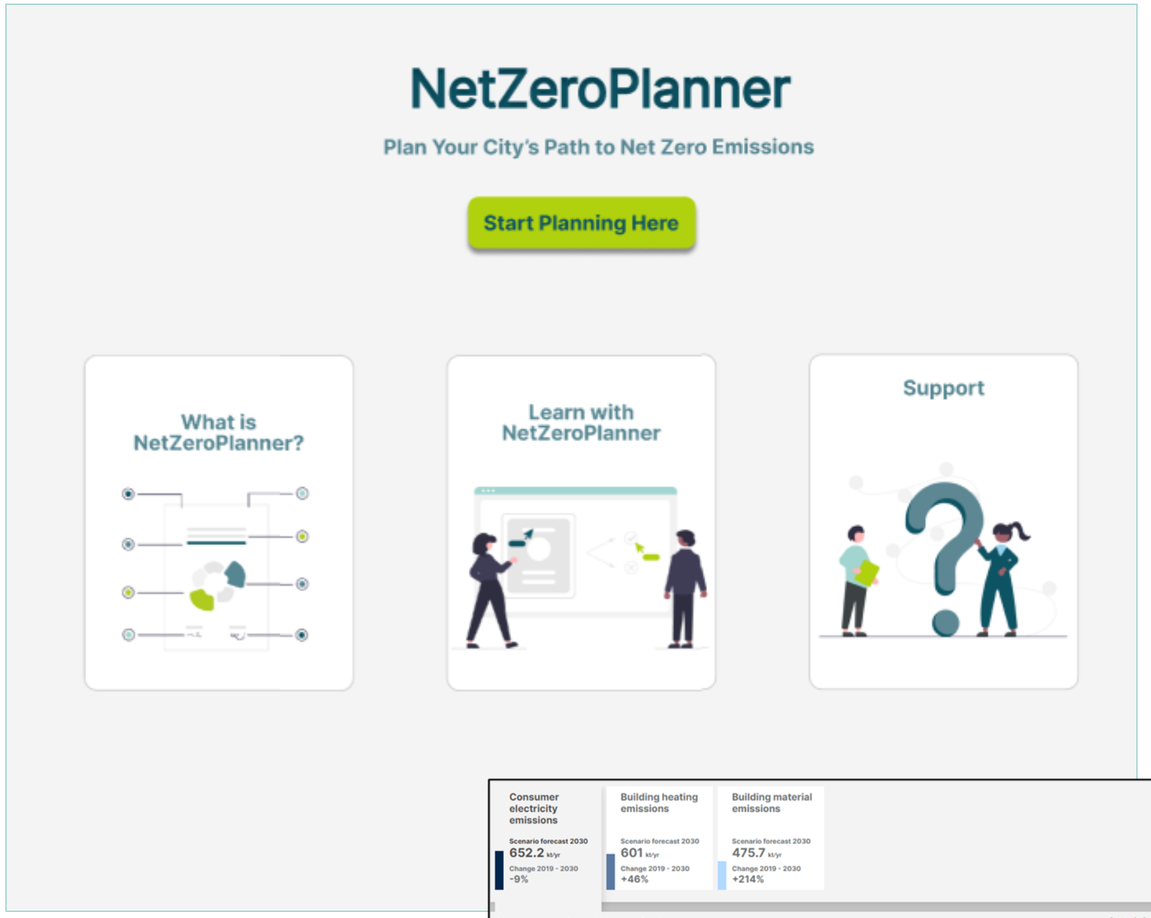


NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.

- Planning and financing tools
- Self-Assessment Tool
- Support pathways and inspiring examples
- Workshops and courses (also giving academic credits)

Online & learning

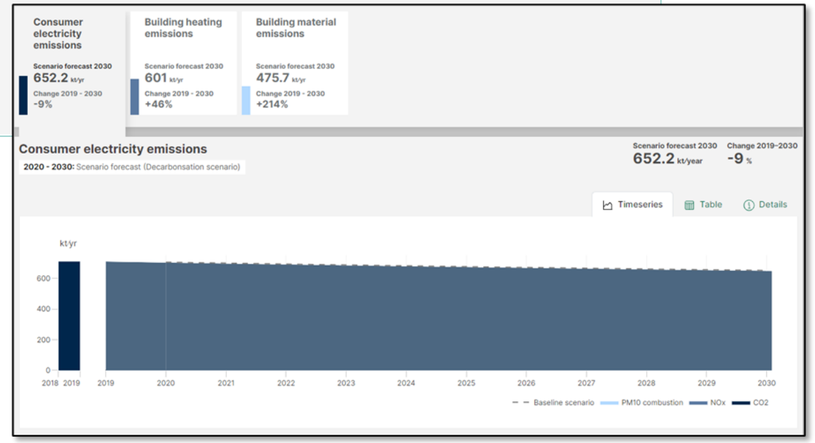
Coming in November
NetZeroPlanner



Online cost-benefit analysis tool which allows cities to create, improve, and track their climate action plan.

It helps to:

- Get a **detailed analysis of 13 decarbonisation sub-sectors** (e.g., transportation, buildings, waste), allowing cities to target high-impact areas;
- **Monetise co-benefits** such as health improvements turning intangible benefits into measurable financial gains.
- **Test different scenarios and ambition levels,** providing flexibility in planning for future challenges.



Already used by 50 Mission Cities – new cities will be trained to use it

NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.

- Three Programmes:
  - Online peer groups
  - Study visits
  - Twinnings

Peer – EU

Peer Learning opportunities at the EU level

Online discussion groups with Mission Cities

- Focused on concrete challenges and domains
- Technical assistance and training
- Exchanges on successful measures
- Deep dives into Mission cities' projects

1st group of 70 cities registered to start in September

Leading to **study visits** to Mission Cities*

Twinning learning programme for 30 cities*

- Focused on deep learning from Mission Cities
- Over a longer period of time
- With study visits in both Mission Cities and Twin Cities
- Long-lasting connections between city practitioners
- Inspiration and guidance to replicate successful approaches

For cities with a commitment to climate neutrality by 2050 at the latest

NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.

- National spaces for debate and training (incl. events – political & technical)
- Mobilisation of national stakeholders
- National Platforms

Peer – National

Engagement at the national level

Why

Crucial role of national governments in climate neutrality policy (regulation, funding, knowledge, data, governance)

Upscaling of successful learning approaches

Involvement of cities in the design and implementation

Create alliances with different actors at the national level (including industry, academia, agencies)

How

National events with involvement of Mission cities and other cities in Europe and Associated Countries

Opportunities for dedicated technical assistance

Awareness Raising with national policymakers

Participation of new cities into existing platforms

NetZeroCities has received funding from the H2020 Research and Innovation Programme under grant agreement n°101036519.

Eugenia Mansutti (Eurocities) eugenia.mansutti@eurocities.eu

Do you want to know more?
Helpdesk for cities: infocities@netzerocities.eu

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POSUDZOVANIE VAŠEJ DIGITÁLNEJ VYSPELOSTI S NÁSTROJOM LORDIMAS

European Commission

What is LORDIMAS?

'Interactive tool aimed at helping local and regional governments to understand where they are in their digital transformation journey'

EVALUATE

A digital maturity tool

Governance, Service design, Data management, Interoperability, Technology, Service delivery and Networking

COMPARE

An interactive dashboard

Presenting your data in real-time and allowing you to compare with other cities in Europe

SHARE

Repository of good practices

Sharing your success and challenges to promote the European way for digital transformation

LEARN

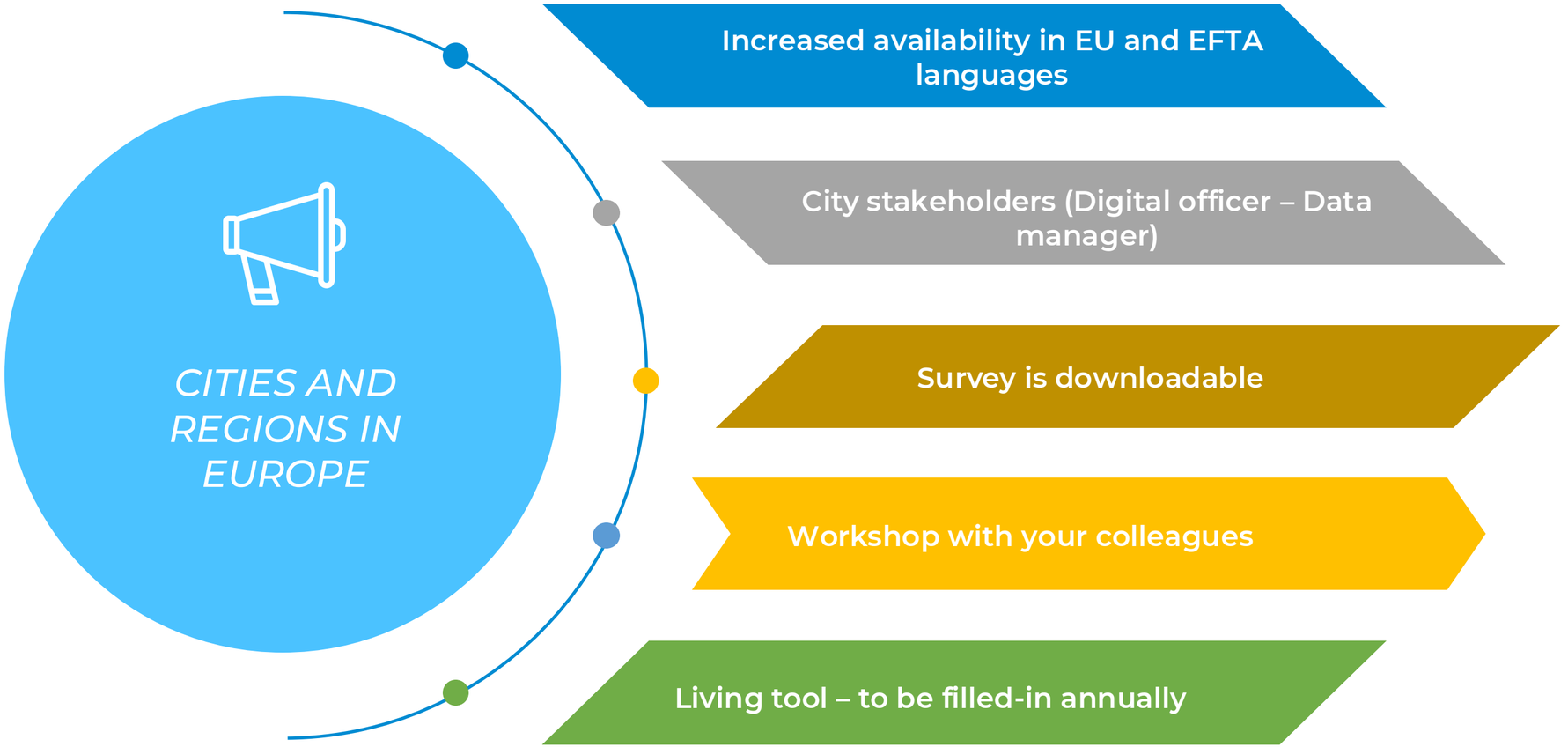
Policy recommendations

Bringing awareness about emerging topics at the EU level and to giving policy advice

What is LORDIMAS?

A functional approach

What else to know about LORDIMAS?



How was LORDIMAS created?

A collaborative work with many stakeholders

European Commission

European Committee of the Regions

ESPON

Co-funded by the European Union
Interreg

EURO CITIES

European Network of Living Labs

ERRIN European Regions Research and Innovation Network

OPEN & AGILE SMART CITIES

CCRE CEMR
L'Europe locale & régionale

Where does LORDIMAS come from?

A collaborative process

2019

Creation of the Living-in.EU movement

2020

Initiation of the work on LORDI in the Monitoring subgroup

2021

Creation of 29 indicators for local and regional authorities

2022

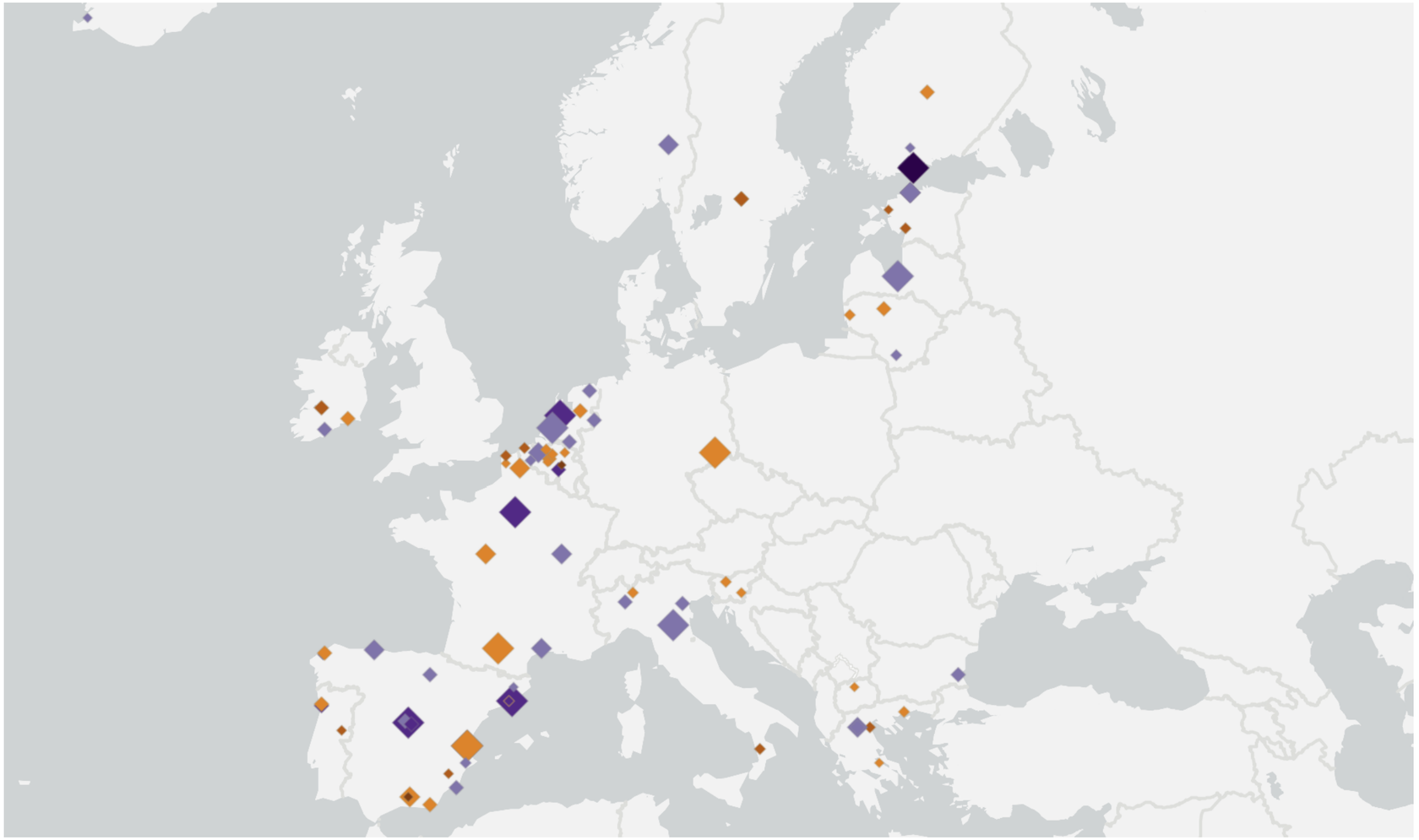
Work is starting on the LORDIMAS tool

2023

Official launch of the tool in October 2023 (EU Week of Regions & Cities)

And since then?

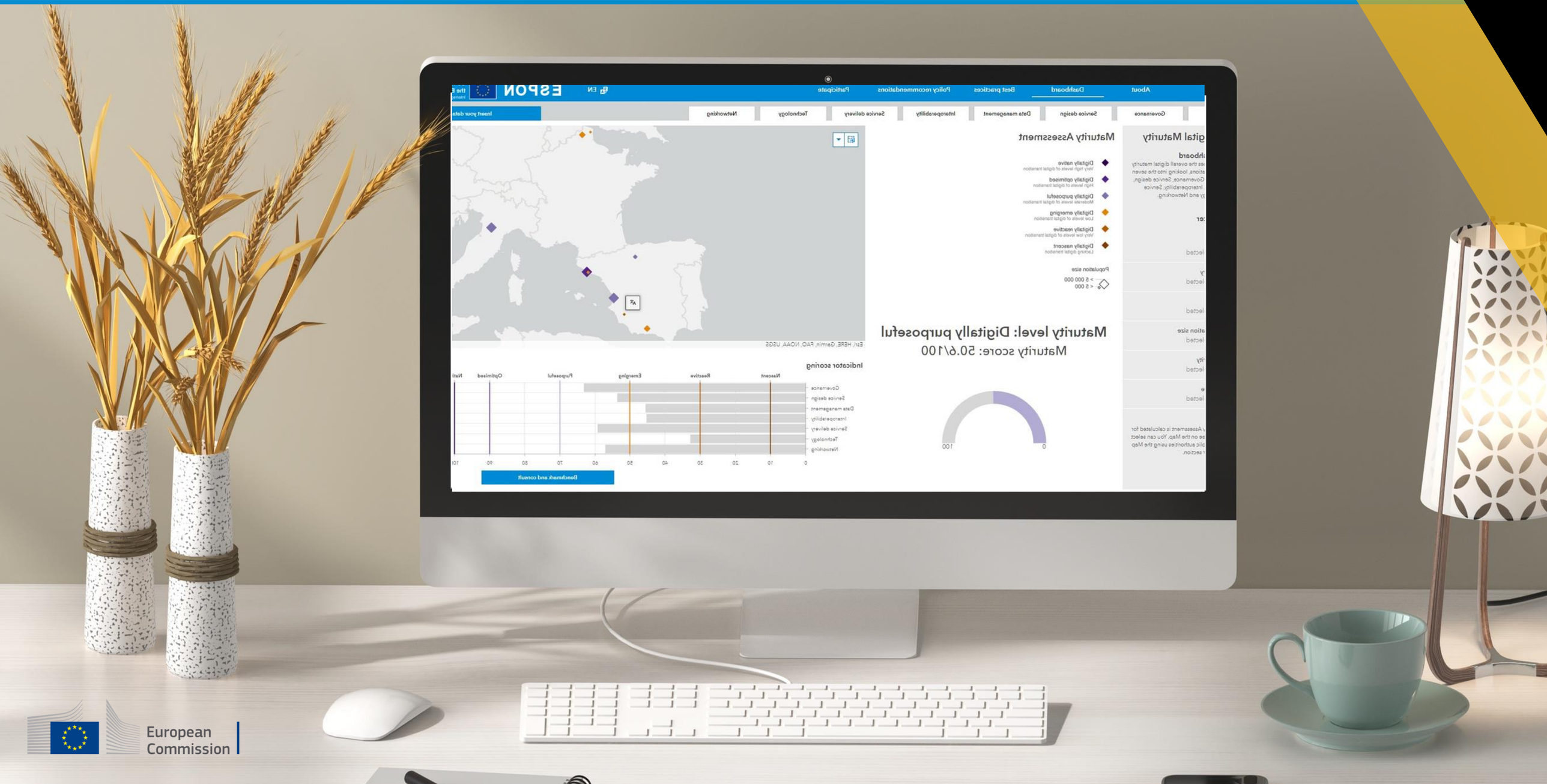
A steady uptake



122 participants

From 26 countries

How does LORDIMAS work?



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Home | About | Dashboard | Best practices | Policy recommendations | Participate | EN | ESPON | Co-funded by the European Union Interreg

LORDIMAS
LIVING-IN.EU

Digital Maturity Assessment

Get policy advice, promote and learn from best practices

LORDIMAS is an interactive digital maturity assessment tool aimed at helping local, metropolitan and regional governments to understand where they are in their digital transition journey

Participate | Explore

Promoted by

European Commission | European Committee of the Regions | ERRIN | OPEN & AGILE SMART CITIES | European Network of Living Labs | EUROCITIES | CCRE CEMR L'Europe locale & régionale

Home | About | Dashboard | Best practices | Policy recommendations | Participate | EN | ESPON | Co-funded by the European Union Interreg

Overall | Governance | Service design | Data management | Interoperability | Service delivery | Technology | Networking | Insert your data

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.

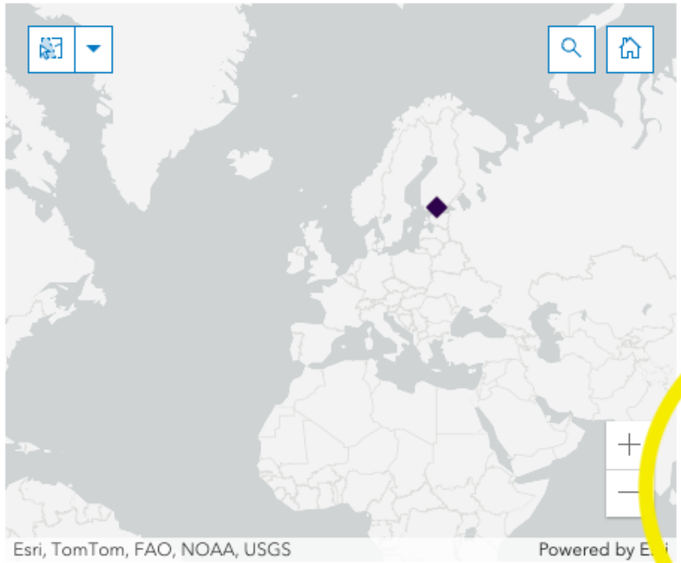
Maturity Assessment

- 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

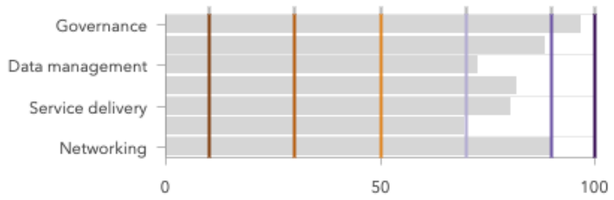
Population size

Maturity level: Digitally optimised

Maturity score: 82.5/100



Indicator scoring



Analyse and visualise

Overall Digital Maturity

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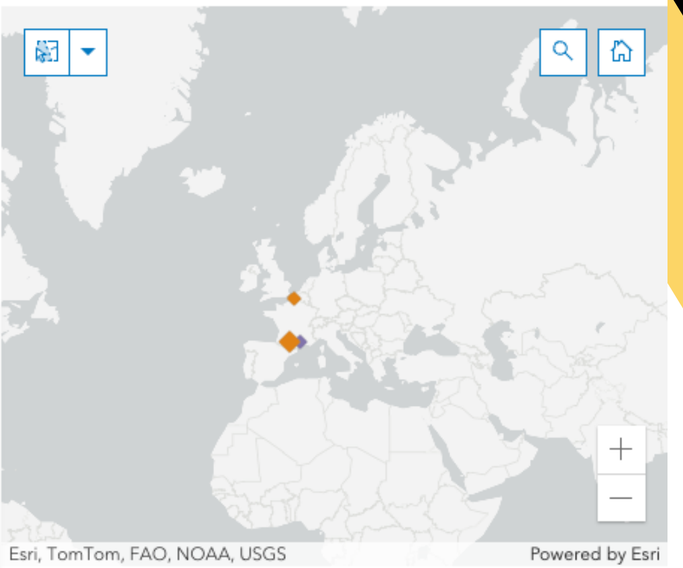
Search and filter

No category selected

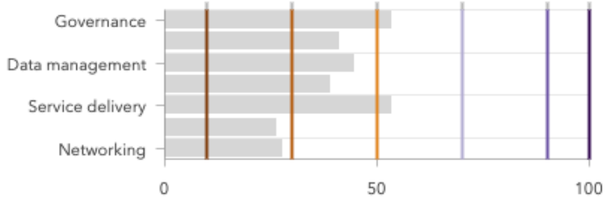
Filter by country
France

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.



Indicator scoring



Benchmark | Policy recommendations | Best practices

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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...

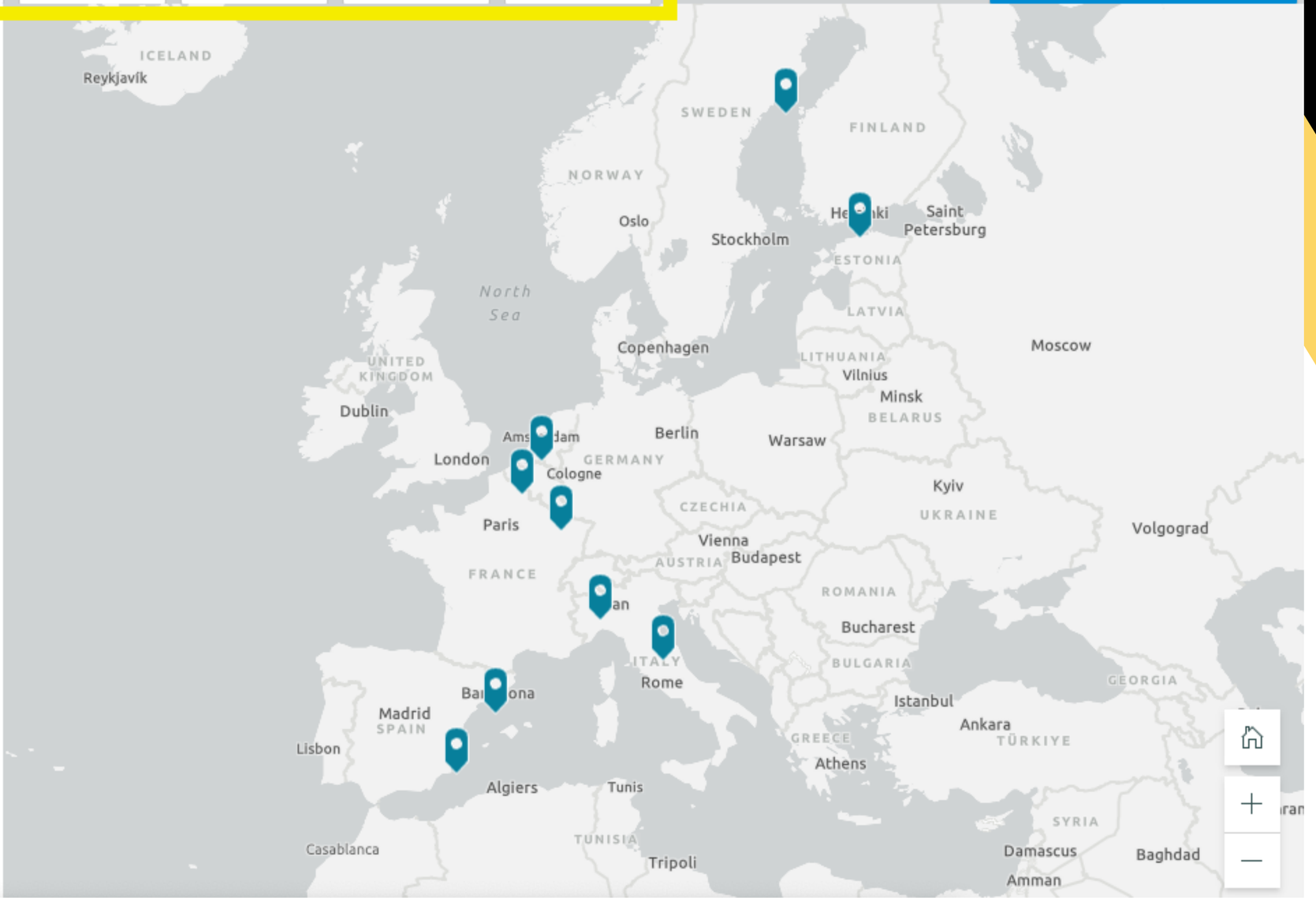
"Participa a Terrassa" (participa.terrassa.cat) is the online tool for citizen participation that...

[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...



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*'The importance is not the score, but the strength of the **community**. Learning to improve and keep moving forward'*

City of Logroño (Spain)

You can access LORDIMAS at:

lordimas.espon.eu

If you want to contribute to shape the future development of the tool you can join the **Monitoring & Measuring Working Group** of Living-in.EU

living-in.eu

Call for Experts

Deadline:
14 February, 12:00 CET

HERE

Call to Action – How to Get Started

- Go to the platform, click on participate and download the offline form.
- Identify your list of key city stakeholders you would like to invite for the assessment. Share the questionnaire with the stakeholders.
- Organise a workshop to discuss the questionnaire and collect information on all dimensions.
- Complete the assessment online, compare yourself to other cities, consult good practices and recommendations
- Summarise and discuss digital maturity assessment results jointly with the stakeholders, share learnings on strengths and weaknesses

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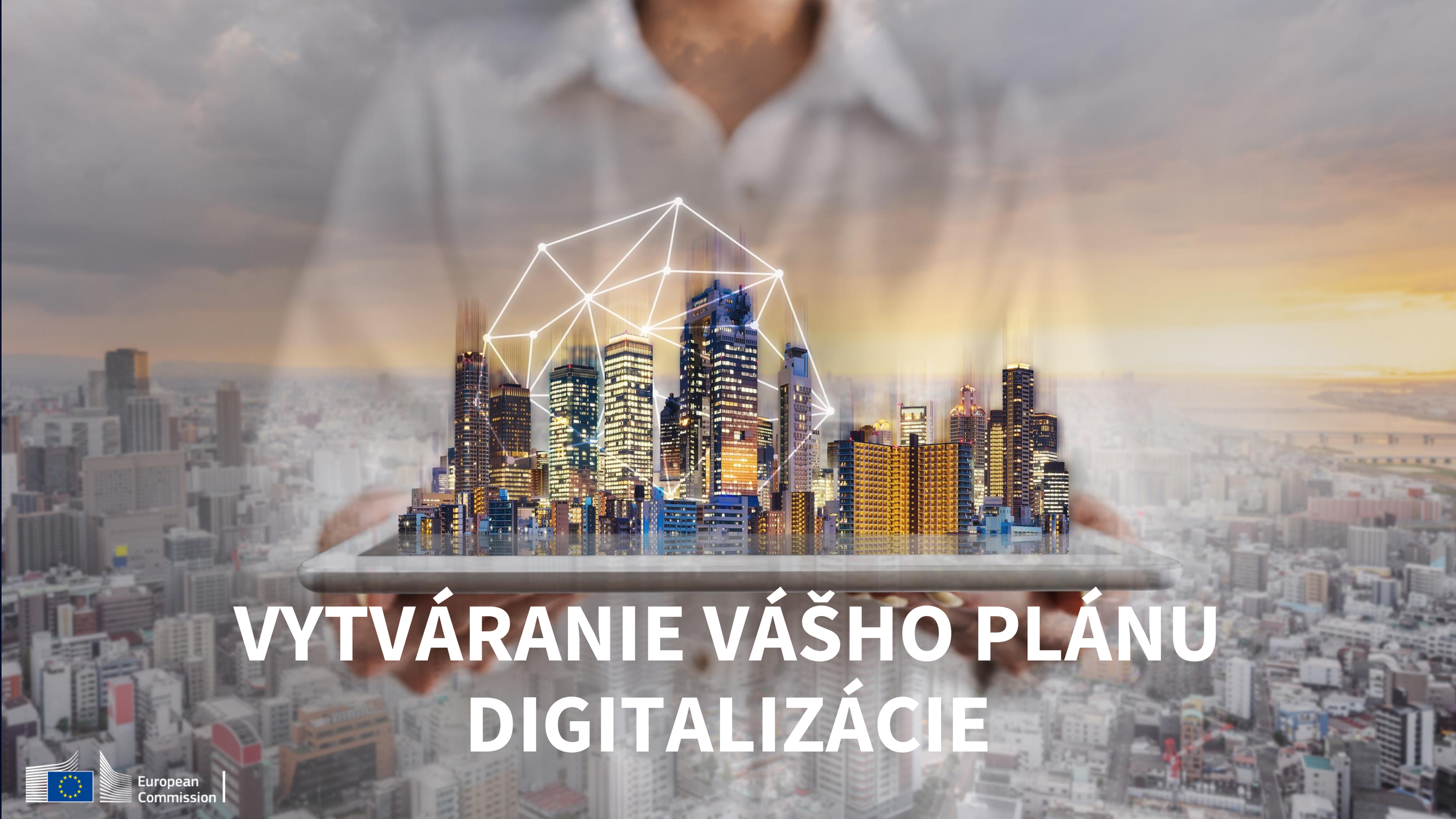

VYTVÁRANIE VÁŠHO PLÁNU DIGITALIZÁCIE

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Focus of this training

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

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LORDIMAS

Governance	Service design	Data management	Interoperability	Service delivery	Technology	Networking
Twin transition	Digital-by-default	Data strategy	Technical specifications	Digital services	Big data	Cross-sector
Strategy	Agile and iterative	Data catalogue	Open source	Once-only principle	Immersive tech	Multi-level
Institutions	User engagement	Data platform	Open standards	One-stop shop	AI	Peer-to-peer
Capacity	Data-driven	B2G/G2B data sharing	Shared data models	Digital inclusion	IoT	International
Monitoring	Innovation ecosystems	Sensor registry	Open APIs	Proactive services	Robotics	
Privacy & Security		AI registry	Building blocks		Blockchain	
		Personal data			5G	
		Digital twin				

European Commission

Questions leveraged for technical maturity scoring

Assessments Methodology

Strategy Assessment

This Assessment will be composed of **two main sections**:

Business and Strategic View As-Is:

Aims to **understand the community's as-in ambition and strategy** and capture the sectors and services that the city has already invested in

Business and Strategic View To-Be:

Understand what the community's strategic future objectives, ambitions, services and sectors are for which it aims to leverage technology to improve urban living and efficiency

IT Infrastructure Assessment

This Assessment will be composed of **two main sections**:

Digital systems/applications:

Seeks to **comprehend what the community's current and future digital systems and applications are** and how **data is collected from IoT devices** to feed them.

Infrastructure:

Aims to understand the **infrastructure that the community has in place**, namely the **physical and technological backbone** that could support or is supporting the operation of Smart City solutions

Strategy assessment

The main goal of this Assessment is to identify the position of the community towards the **as-is and target digital state**

Business and Strategic View As-Is:

- Identify city/ community's digital ambition and strategy
- Identify sectors that the city is already investing in

Business and Strategic View To-Be:

- Identify city/community's goals on implementing local digital platforms (and later on local digital twins)
- Identify use cases that can benefit from the implementation of digital twins
- Identify enabling factors such as a smart city office and KPIs

Assessment Rationale

Multiple Choice Questions

Questions to be answered in a Multiple-Choice format, allowing for more targeted answers

Open Questions

Questions to be answered whenever more detail is needed of a certain topic, allowing to understand the business and strategic view more deeply

Example of Assessment Questions

- Which of the following digital resources do you currently share with other communities?
- How extensively defined is your strategic vision for digitalisation?

Assessment Outputs

Valuable Insights

Collect valuable information to understand the community's current situation and how it can be addressed during the roadmap design, with regards to its vision, organisation and goals

Assessment Audience

Participants

Inputs should be provided by the **following profiles**:

- Chief Executive Officer or similar*
- Chief Technology Officer or similar*
- Chief Data Officer or similar*

*Applicable, if the city has someone with this role

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Strategy assessment

Strategic Priorities

Vision & Objectives

Multi-City Platform

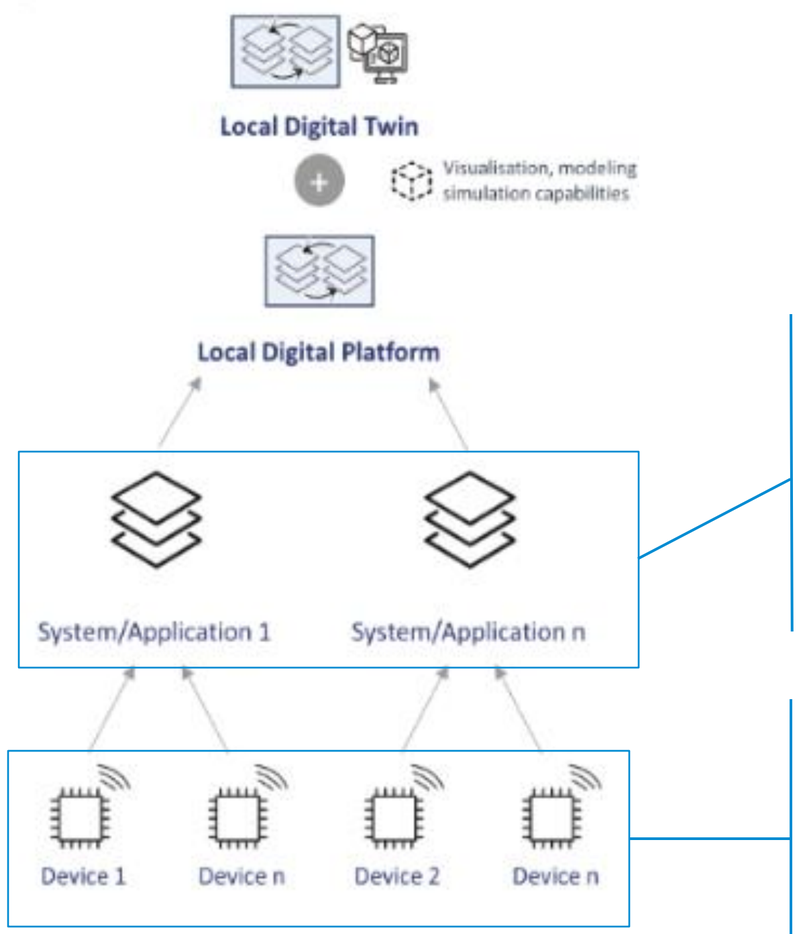
Governance

Strategic KPIs

European Commission

IT Infrastructure assessment

The main goal of this section in the Assessment is to understand the city/community's digital platform maturity and interoperability



SYSTEMS/ APPLICATIONS

Definition:
Responsible for aggregating and processing sensor data to control and forecast often sector-specific operations

Target of the Assessment:
Understand if the community has any platform already in place and if those platforms are being shared between multiple cities/communities

IOT DEVICES

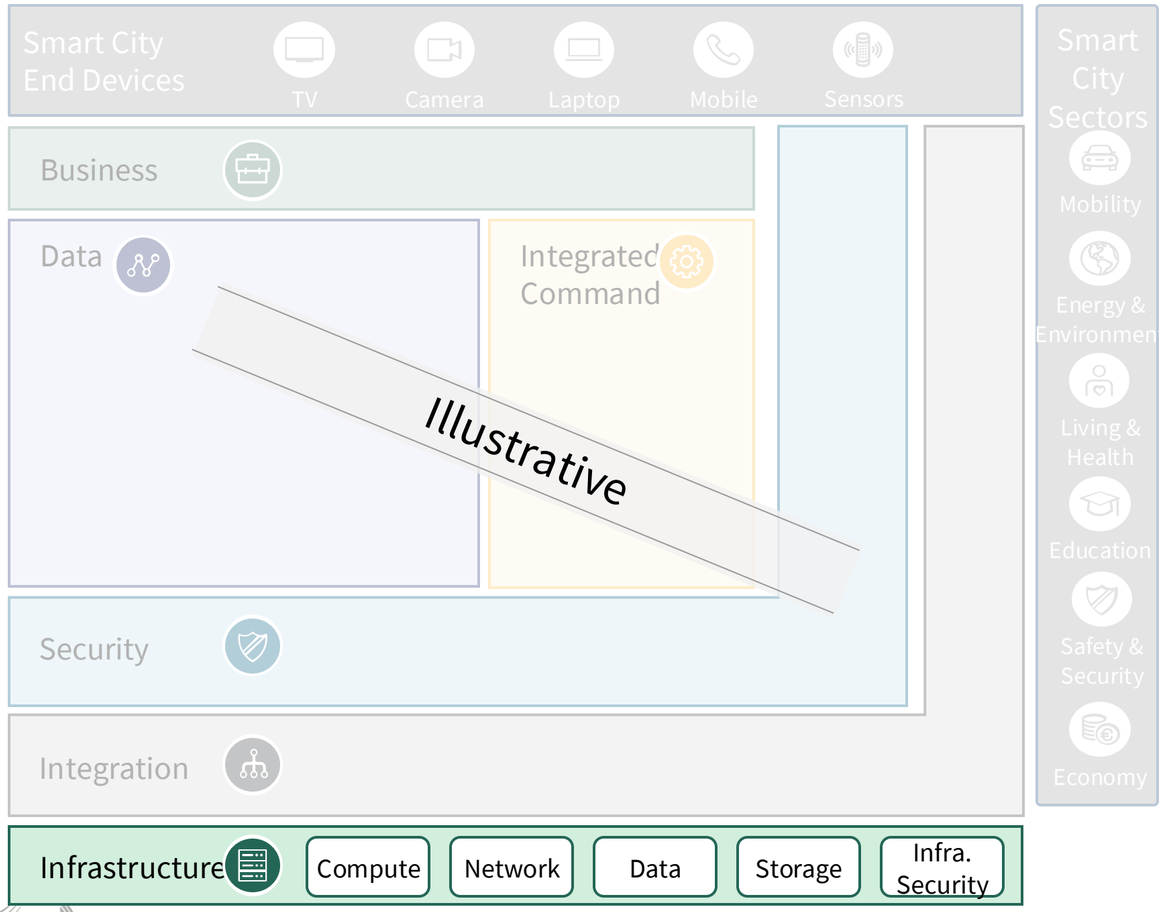
Definition:
Responsible for collecting, preparing, and managing community data to be used by the sectorial platforms

Target of the Assessment:
Understand if the community has any sensors in place from which they are collecting data

IT Infrastructure assessment

The main goal of this section in the Assessment is to assess the city/community technical level of maturity and have valuable insight on it

Reference Architecture



Infrastructure Capabilities

Compute	Applications and workloads require a great deal of compute capabilities, these services can be provisioned on demand or reserved
Network	Enables capabilities such as load balancing, segmentation and virtual data centres
Data	Examines large amounts of data to uncover hidden patterns, correlations and insights. Helps organisations harness their data and use it to identify new opportunities
Storage	Delivers scalable, flexible and redundant storage capacity through web services API, online interfaces and thick client applications
Infrastructure Security	Secure the entire infrastructure which includes all hardware and software

IT Infrastructure assessment

Assessment Rationale

Assessment Division

2 **Chapters** in the Digital Platform Section (City Platforms and IoT Devices)

5 **Chapters** in the Infrastructure Section (Compute, Network, Data, Storage and Infra Security)

Each chapter will be divided by….

"Yes or No" Questions

Questions to be answered in a "Yes or No" format. This should be the introductory question of each chapter to understand if the city/community already has the component/capability in study, and therefore if a deep-dive assessment is needed

Multiple Choice Questions

Questions to be answered in a Multiple-Choice format, allowing more targeted answers

Scale Questions

Questions to be answered on a scale of 1 to 5, to assess the current maturity of each capability, and how the city is positioned regarding the overall infrastructure needed to sustain local digital platforms (and later on local digital twins)

Detail Questions

Questions to be answered whenever more detail is needed for a certain topic. Should provide an overview of the components and capabilities' current state and give relevant insights and information to be utilised later in the roadmap design

Example of Assessment Questions

Example questions

Does your community currently have IoT devices implemented?

For which types of IoT sensors does your community currently have ongoing activities for implementing them?

Does your current Local Digital Platform integrate data from multiple systems, applications, and IoT devices?

If applicable, kindly share further information about your Local Digital Platform, such as key use cases, solution provider, access type (public or restricted), and a link if available.

To **have a comprehensive understanding** of the city/community's technical maturity, the assessment inputs should be provided by the **following profiles**:

Chief Technology Officer, Chief Data Manager, Storage Manager, Network Manager, Security Manager, Infrastructure Provider, or similar profiles

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IT Infrastructure Assessment

IoT	Systems & applications	Data	Storage	Compute	Network	Infrastructure Security
IoT Devices	Smart City Applications	Data Strategy	On Premises	On Premises	Network Capacity & Effectiveness	Cybersecurity Policy
Device Management Strategy	Local Digital Platform	Data Governance	Cloud	Cloud	Network Adaptability	Plan, Monitor & Test
Device Management Platform		Data Collection & Management		Cloud Computing Advanced Tech	Network Connectivity	Security Advance Measures
		Data Analysis			Network Coverage	Security Segmentation
		Data Centralisation			Network Reliability	Privacy Compliance
		Data Retention & Backup			Network Redundancy	Disaster Recovery

Assessment to Roadmap

Assessments Contribution to the Roadmap

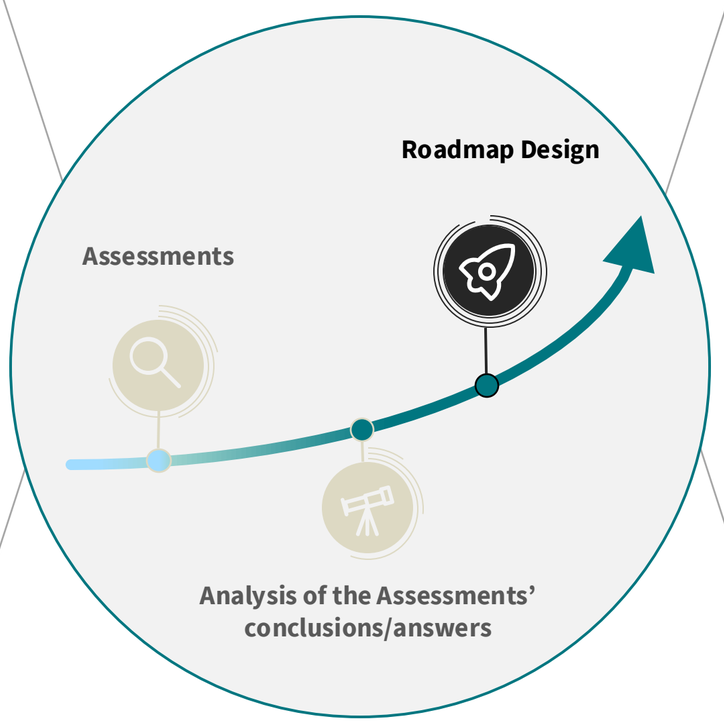
Strategy Assessment

Will allow for a targeted roadmap through the vision and strategy of the city/community, focusing on the sector that the city/community is investing in or wants to invest in

IT Infrastructure Assessment

Will allow for a more focused roadmap on what the city/community really needs to invest in and evolve, because of the following view:

- If the city/community has digital platforms or sensors in place
- If the city/community is interoperable and the state of it
- The maturity level of the city/community's infrastructure and their current technical condition



First Look to the Roadmap Template Methodology

Roadmap Templates based on the Infrastructure Maturity Levels:

- Digital Absent
- Digital Embryonic
- Digital Pioneer
- Digital Foundation
- Digital Growth

Main Topics needed to be **included in the Roadmap Template** for each City/Community:

- Suggested Activities and "Must-have" Core Capabilities
- Use Cases Development and their Requirements
- Milestones, including the Procurement Processes and Templates

Technical Maturity Level

Technical Maturity Level

Based on the answers, calculate a maturity level that will serve as a benchmark for selecting the most appropriate roadmap template for each community

Maturity Level

Digital Absent: a community that is in a digital absent state and shows poor technological capabilities. However, there is willingness and/or political commitment to start its digital transformation journey including the adoption of smart solutions

Digital Embryonic: a community that grapples with inadequate technological capabilities to effectively fulfil its willingness and/or political commitment to embark on a digital transformation journey

Digital Foundation: a community that is in a digital foundation state and shows basic technological capabilities. All capabilities need to have started their development or exploration, and Integration/ Interoperability and Data should already be in use within the community

Digital Seeker: a community with a digital strategy, IoT devices or services and advanced technological capabilities in place, possibly already with a local digital platform in place or at development

Digital Growth: a community that has implemented a local digital platform and already displays more mature technological capabilities, but that needs to continuously evolve towards a local digital twin

Assessment score

Your Maturity Level!

Nascent Reactive **Emerging** Purposeful Optimised Native

LORDIMAS SCORE

Digital Maturity

Absent **Embryonic** Foundation Seeker Growth

ASSESSMENT SCORE

Technical Maturity

Note: The two maturity levels presented cover similar but somewhat different scopes of analysis, which may result in differences. The Digital Maturity results directly from LORDIMAS, while the Technical Maturity score focuses on IT core capabilities and aligning them with the strategic ambition of the community. The Technical Maturity Scores are derived from the combination of assessments performed within the helpdesk's scope and underpin the presented roadmap.

COMMUNITY NAME Assessment Scores:

Digital Maturity (LORDIMAS Assessment)

Governance	Service Design	Data Management	Interoperability	Service Delivery	Technology	Networking

Technical Maturity (LORDIMAS Assessment, Strategy Assessment, IT Infrastructure Assessment)

Digital Strategy	IoT Devices	Local Digital Platform	Integration/ Interoperability	Data	Storage	Compute	Network	Security
✓ Under development	●	✕	●	●	●	●	●	●

Caption: ✓ In place ✕ Not in place 1 Not at all 2 Initial exploration 3 Basic utilisation 4 Advanced utilisation 5 Outstanding utilisation

Key Considerations

- *Add text*
- *Add text*
- *Add text*
- *Add text*
- *Add text*
- *Add text*

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Roadmap structure

The community's Roadmap

The Enablers and Capabilities that are shown in the community's roadmap will translate into more detailed initiatives

Phases

The community's roadmap can be divided in up to **3 main phases** according to its level of maturity**,** from the **beginning of the community's digital journey** until the implementation of a **Local Digital Twin**, namely:

i. **Foundation**

ii. **Growth**

iii. **Expand & Accelerate**

Enablers & Capabilities

Enablers

The roadmap may include up to **10 enablers** that facilitate and support the implementation of local digital twins. **Each enabler can have one or more sub-enablers** that collectively define the overall enabler

Examples: Strategy, MVP Digital Platform

Capabilities

The roadmap may include up to **9 main capabilities** that the community needs to have in place to enable efficient urban management and data-driven decision-making. **Each capability can have one or more sub-capabilities** that collectively define the overall capability

Examples: Data Capability, and Data Collection and Management Sub-Capability

Initiatives

For each capability and enabler outlined in the community's previously defined roadmap, a corresponding **list of initiatives** is associated. The **initiatives will be refined** to what the community needs to **invest and ensure to have an outstanding utilisation** of the capabilities and enablers, according to its level of maturity in each sub-capability

Examples: "Identify and implement a Backup Tool to streamline and enhance the effectiveness of the community's data retention and backup strategy and principles"

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Reference Roadmap

Starting the Digital Journey → **Implementing a Local Digital Twin**

Increase of the digital transformation (local digital platforms and local digital twins)

Foundation

The main goal of this phase is to **understand the strategy** of the community and **identify the core foundational capabilities and capabilities and enablers** to implement a Local Digital Platform

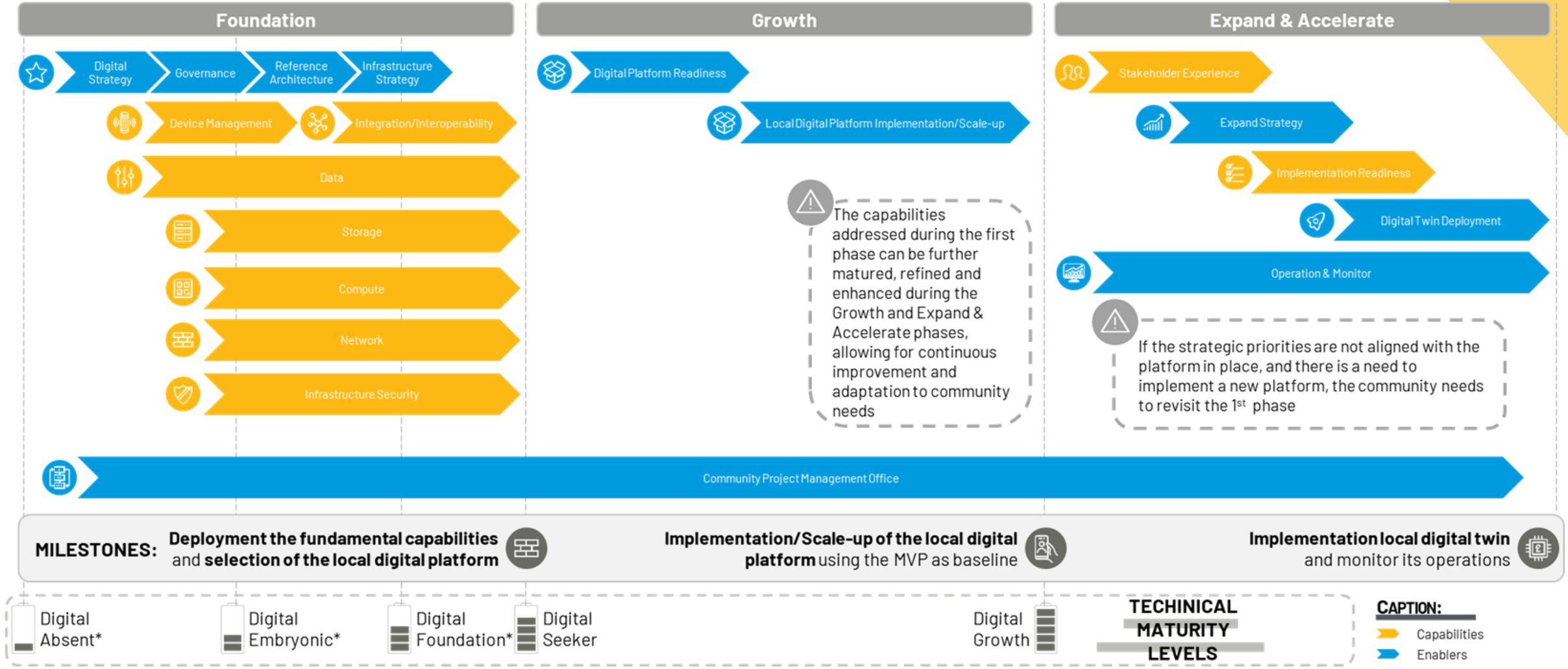
Growth

Growth phase focus on **testing that the systems/applications are feasible**, to validate if the chosen systems/ application(s) are a fit for the community. Following successful validation, the deployed MVP will serve as a foundation to accelerate the **implementation of the Local Digital Platform**

Expand & Accelerate

Address the strategy of the community to implement a Local Digital Twin. Ensure all essential tools and initiatives are in place and achieve a **successful implementation of the Local Digital Twin.** If the community's ambition is not aligned with the platform in place, and there is a need to implement a new platform, the community needs to go back for the 1st phase

Reference Roadmap



Roadmap streams (1/2)

Digital Strategy

Design the community's strategy by defining the main goals, challenges and use cases that will enable the community's digital journey to achieve the deployment of a Local Digital Twin

Reference Architecture

Design a Reference Architecture that works as a comprehensive framework that defines the community's components' relationships and design principles to

Digital Platform Readiness

Leverage foundational capabilities and drive their continuous enhancement to establish and/or improve a robust LDP through reassessment, strategic planning, and iterative improvements, ensuring alignment with evolving strategic goals

Expand Strategy

Define community goals on implementing a local digital twin and identify the strategic priorities that can must benefit from the implementation of a local digital twin

Operation & Monitor

Encompass activities related to the day-to-day operations, maintenance, and optimisation of the local digital platform and the community's local digital twin

Governance

Design the Governance by defining the structure, processes, roles and responsibilities that guide decision-making, creating an efficient and sustainable framework that enables the implementation of smart community's initiatives

Infrastructure Strategy

Develop the digital twin, leveraging the collected data and chosen technology. Then integrate the digital twin with existing community systems

LDP Implementation /Scale-up

Deployment and integration of a comprehensive technological infrastructure designed to support various digital services, applications, and data-driven functionalities across the community

Digital Twin Deployment

Develop the digital twin, leveraging the collected data and chosen technology. Then integrate the digital twin with existing community systems

Community Project Management Office

PMO and project management for controlling collaboration and executing governance throughout project delivery helping drive the desired outcomes and risk mitigation

Roadmap streams (2/2)

Device Management

Develop and implement strategies for effective management and maintenance of community devices or services, ensuring optimal performance and longevity

Data

Implement effective data management practices to collect, organise, and utilise data from various sources within the community's infrastructure, supporting data-driven decision-making

Network

Establish and maintain a robust network infrastructure to ensure seamless connectivity and communication across all community devices, enabling efficient data exchange

Security

Promote the delivery of a community's cybersecurity framework covering different capability elements such as people, process and technology

Implementation Readiness

Collect multi-source real-time/historical data, choose the technology best suited for community needs and collaborate with community/regional stakeholders, fostering knowledge sharing and goal-alignment

Integration/ Interoperability

Foster seamless interaction and data exchange among devices and applications, promoting an integrated and connected urban ecosystem

Storage

Analyse future storage requirements versus current state and develop recommendations for the proposed initiatives concluded around the deployment of storage infrastructure

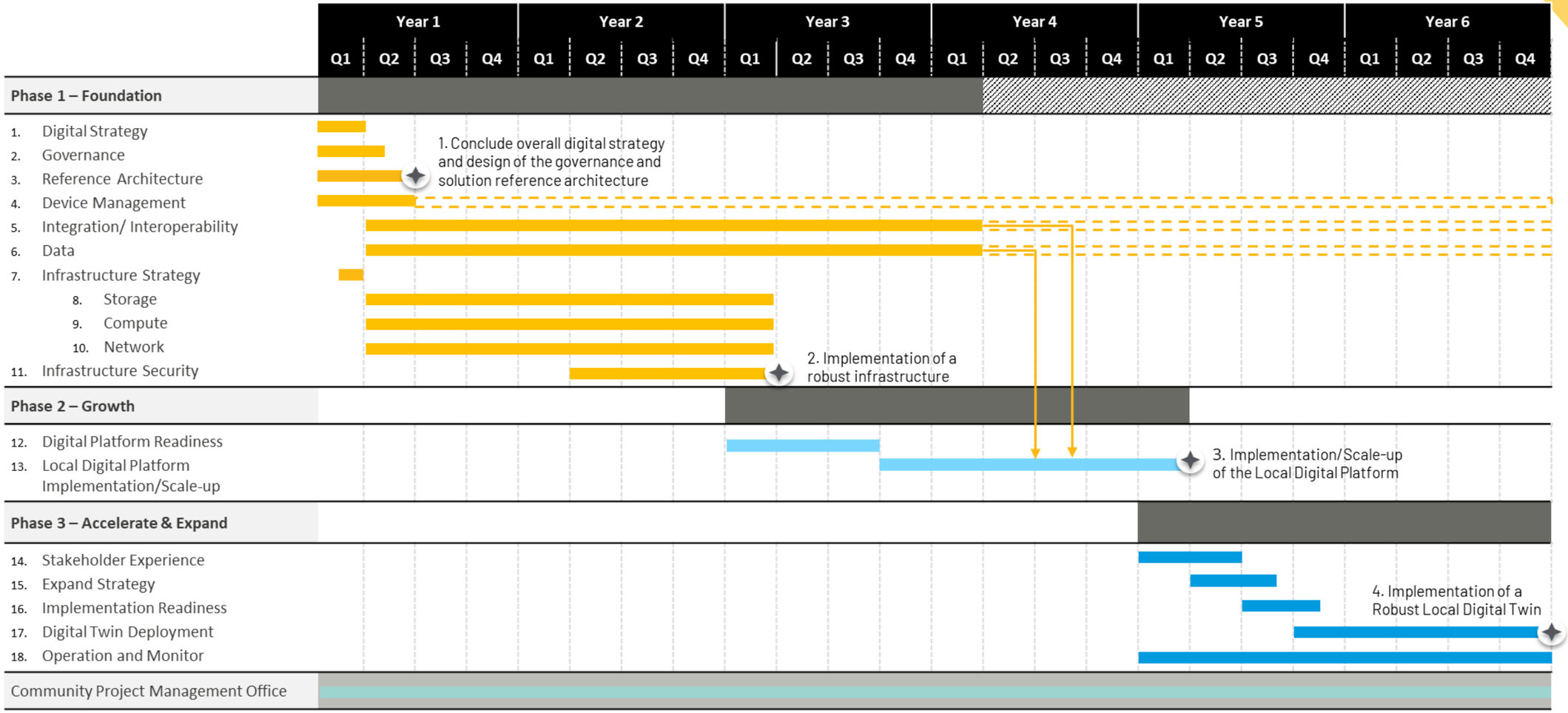
Compute

Implement robust computational capabilities that facilitate efficient data processing and decision-making within the community's ecosystem

Stakeholder Experience

Communicate and collaborate with community's stakeholders to understand their concerns and manage their vision of the community's goals and ambitions

Reference Roadmap



Note: The arrows represented in the reference roadmap illustrate that during the implementation of the local digital platform, both Integration/ interoperability and data capabilities should be addressed. It is essential to ensure the seamless concatenation of Integration/ interoperability and data collection within the local digital platform during its implementation

Caption: ● Phase ✦ Milestone

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Initiatives

Foundation | Growth | Accelerate & Expand

5 Data

Data Capability refers to the city's ability to effectively collect, process, manage, and utilise data from various sources and domains, including infrastructure, technologies and processes in place. This capability can be divided into 6 major sub-capabilities: Data Strategy, Data Governance, Data Collection & Management, Data Analysis, Data Centralisation and Data Retention & Backup.

Main Initiatives (1/2)

Data Strategy

- Design/ Review the Data Strategy which sets the approach for the acquisition, storage, management, sharing, usage and governance of data, in support of enhancing city digital services and improving quality of life for residents

Data Governance

- Review the Data Governance Principles, Framework and Tool selected, ensuring that is aligned with the community's ambition
- Identify Governance Tools for managing and ensuring the policies and standards, quality, security and compliance of the data used and collected by the city
- Implement a Data Governance Tool for managing and ensuring the policies and standards, quality, security and compliance of the data used and collected by the city

Data Collection & Management

- Review the Data Collection and Management Strategy, ensuring that is aligned with the community's ambition
- Drive the community towards a more data-driven paradigm by modernising data collection methods, as well as implementing and improving the collection of the data sources, e.g., based on specific events, periodically, and considering the integration of real-time data collection. Real-time collection is one of the most important components for a smart city, since it helps the community to make informed, timely decisions, enhancing efficiency and the quality of decision-making
- Gradually increase the variety and quantity of data sources to enrich the community's information landscape and enhance the quality of insights that can be produced from an increasingly integrated view

Calendar Estimate

Procurement Objects*

- *Data Governance tool*
- *Real-time data collection tools*
- *Data providers*
- *Data analytics tool*

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

Interdependencies

2 *Reference Architecture*

3 *Device Management*

6 *Infrastructure Strategy*

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PODPORA VEREJNÉHO OBSTARÁVANIA PRE SMART KOMUNITY
ZOZNÁMENIE SA S PRISPÔSOBENÝMI ŠABLÓNAMI A USMERNENIAMI EÚ PRE VEREJNÉ OBSTARÁVANIE

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Agenda of the training session

1. **Scope of the training** | Objective, learnings and target audience
2. **Procurement process overview and identification of needs**
3. **Procurement support** | Templates and Guidelines
4. **Call to action** | Get involved in the review process!

1 Scope of the training | Objective

1. Learn how to understand and identify your **procurement needs** to implement enhanced ICT solutions.

2. Learn how to use the **procurement materials** provided by the *Support services for EU Smart Communities* project for the acquisition of key technical components and services needed to advance digital initiatives.

1 Scope of the training | Learnings

01

What the procurement support is about

- Identification of procurement needs
- Access to open procurement templates
- Access to procurement guidelines

02

How to effectively use the procurement templates

Procurement templates provide you with open and MIM-compliant *tender* and *technical specifications* templates, that are customisable for each community.

03

How to benefit from the procurement guidelines

Procurement guidelines will orient you throughout your procurement process

1 Scope of the training | Target Audience

Overall, the training session is designed for users who want to scale-up their digitalisation journey towards the implementation of local digital platforms and twins.

- Urban managers and planners
- Sustainability managers
- Digitalisation and Smart City experts
- Innovation managers
- Data Managers
- ICT Managers
- Procurement Officer

2

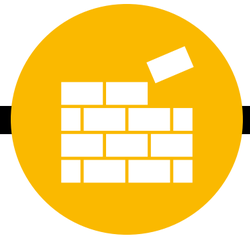
Procurement process overview

FROM THE ROADMAP TO PROCUREMENT SUPPORT

Digitalisation Roadmap

Based on their level of digital maturity, communities define a digitalisation roadmap

Initiatives identification



Communities identify a set of initiatives to build the capabilities required for the development of LDPs and LDTs, on the basis of the strategy defined

Procurement needs

Communities identify their procurement needs, focusing on the procurable initiatives

Procurement templates

Communities will have access to open procurement templates to customise and use when launching procurement processes

Procurement guidelines

Communities will have access to a set of guidelines, as supporting material of the templates, to address questions, doubts and problems

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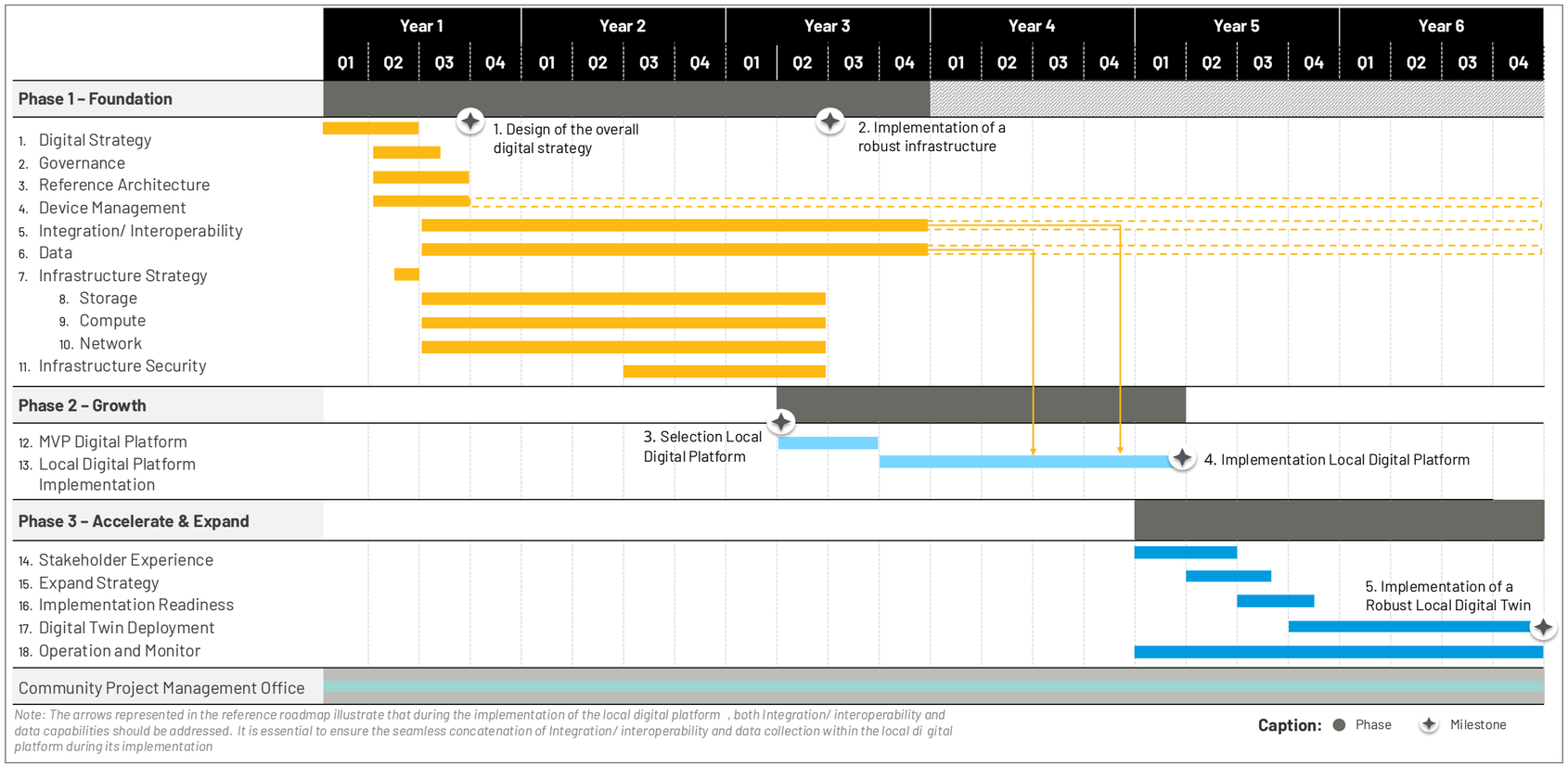
2

Digitalisation Roadmap and identification of initiatives

- ❖ Communities develop a digitalisation roadmap, based on their digitalisation level.
- ❖ The roadmap presents the key technial capabilities that a community needs to build to develop LDPs and LDTs.
- ❖ For this, a set of initiatives and an implementation timeline are defined.

Overview of capabilities and enablers and correspondent reference timeline



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2

Mapping procurement needs

From initiatives to procurement materials

Defining the digitalisation roadmap | **Identifying procurement needs** | **Tailoring and using the templates**

Capabilities & enablers → **Initiatives** → **Procurement needs** → **Specific procurement template**

3

Procurement support material

Procurement Templates

Procurement Guidelines

European Commission

3

Procurement support material

Procurement Templates

Procurement Guidelines

European Commission

3

Procurement Templates

Procurement Templates

in English, French and German!

Tender specifications

- Scope and description of the procurement
- General tendering information
- Evaluation and award

Technical specifications

- Compliance checks and warranty
- Technical and functional requirements
- Minimum Interoperability Mechanisms (MIMs)

3

Procurement Templates

Procurement Templates

TEMPLATE	contains	PROCUREMENT OBJECTS
IoT devices		IoT devices
Data & security user-facing applications		User authentication federation tool, Cyber threat detection tool, Data governance tool, GDPR compliance tools
Backend data SW application		Data analytics tool (3D modeling services), Data Backup tool, Data prediction and simulation models, Real-time data analytics tool, Real-time data collection tools
Network infrastructure		Network, Network monitoring tool, Network capacity infrastructure Hardware
IoT platform		IoT platform
On premises computing		On-premises Automatic Computing Management Tool, On-premises Computing measures Tool, On-premises Computing Provisioning and Cleanup Tool
On premises storage		On-Premises Automatic Storage Management tool, On-Premises Storage Provisioning and Cleanup tool
Cloud computing		Advanced cloud computing tools, Cloud Automatic Computing Management Tool, Cloud Computing measures Tool, Cloud Computing Provisioning and Cleanup Tool
Cloud storage		Cloud Automatic Storage Management tool, Cloud Storage Provisioning and Cleanup tools
Software development services		Ad hoc SW development services, PETs application, Middleware Software
Information provider services		Data providers
User-facing platform		Local Digital platform
Cloud connection services (IaaS)		IaaS: edge computing, virtual machines, containers, etc.
Cloud connection services (SaaS)		SaaS software (managed in a stack logic)
Cloud connection services (PaaS)		PaaS platforms (managed in a stack logic)

Procurement Guidelines

Procurement Templates

Procurement Guidelines

Procurement Guidelines

Procurement Guidelines

Thematic areas

- Templates guidance
- Tender development
- Market engagement
- Evaluation & award
- Funding & financing

3

Procurement Guidelines

Procurement Guidelines

List of Guidelines

AREA	GUIDELINE
Templates guidance	How to use the templates and guidelines
	Tailoring procurement templates
	Key features and considerations to use the templates
	Guidance on user profiles
Tender development	Guidance on needs identification
	EU legal frameworks and compliance
	Technical specifications reading and tailoring
	Innovation procurement
Market engagement	Engagement of market actors and SMEs
	Sustainability and social goals
Evaluation & award	Supplier evaluation processes and negotiation
	Conditionalities and contractualisation
	MIMs, standards and certifications' compliance
Funding & financing	Guidance on EU Support and Finance

OTÁZKY A ODPOVEDE

European Commission

• Výzva na akciu: Pripomenutie

1

Pripravte si stratégiu na implementáciu lokálnych digitálnych dvojčiat

2

Zapojte sa do hnutia Living-in-EU

3

Vyhodnoťte svoju digitálnu vyspelosť pomocou nástroja LORDIMAS

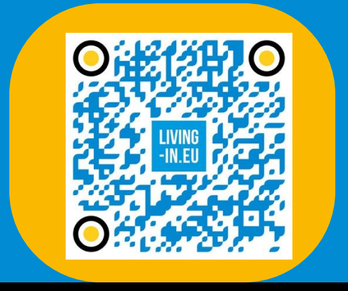
4

Objavte MIMs Plus a začnite budovať svoju otvorenú dátovú architektúru

5

Prístup k podporným službám EÚ pre inteligentné komunity

6



Získajte prístup k podporným službám EÚ pre inteligentné komunity

REGISTRUJTE SA NA ĎALŠIE ŠKOLENIE

PRÍPRAVA

Online Školenie 2

4. Jún 2025

10:00

European Commission

Výzva na akciu: Registrujte sa na školenia

SLOVENSKO

Fáza 2: Príprava

Prípravná fáza: Ako nastaviť svoju IT infraštruktúru

- Pochopenie dôležitosti otvorených a opakovane použiteľných dát + základnej vrstvy dátovej infraštruktúry.
- Naučte sa, ako implementovať MIMs Plus pomocou nástroja Local Digital Twin Toolbox.
- Objavte, ako Európska komisia poskytne financovanie prostredníctvom Local Digital Twin Toolbox podporovaného MIMs

4.jún, 2025 **10:00**

Fáza 3: Posilnenie

Podpora a sieť: Ako vám financovanie a komunita môžu pomôcť

- Objavte iniciatívu LIVING-IN.EU, ako sa zapojiť do jeho aktivít a využívať zdroje vyvinuté komunitou
- Zistite viac o službách poskytovaných EÚ a naučte sa, ako podať a zlepšiť svoj návrh

9.jún, 2025 **10:00**

European Commission

Zvyšovanie povedomia o digitalizácii a pripravenosti slovenských samospráv na digitálnu transformáciu

v spolupráci s:

MINISTERSTVO INVESTÍCIÍ, REGIONÁLNEHO ROZVOJA A INFORMATIZÁCIE SLOVENSKEJ REPUBLIKY

Ďakujeme

European Commission

serendipity Capgemini OASC OPEN & AGILE SMART CITIES & COMMUNITIES technopolis group imec embracing a better life EUROCITIES ICLEI Local Governments for Sustainability EUROPE Deloitte.