

# INCREASING DIGITALISATION AWARENESS & READINESS OF LATVIAN COMMUNITIES



in collaboration with

VEFRESH

30 October 2024

5G Techritory, Atta Centre, Riga, Latvia



# Main Objective of the session

**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 30th



14:00 EET

Time	Session	Speaker(s)
14:00 – 14:10	Welcome	<b>Viesturs Celmins</b>   Managing Director VEFRESH <b>Arnis Gulbis</b>   Director, Riga Digital Agency
14:10 – 14:30	Introduction to Local Digital Twins	<b>Miguel Álvarez Rodríguez</b>   Policy Officer, AI Office, European Commission <b>Arnis Gulbis</b>   Director, Riga City Council
14:30 – 15:00	Local Digital Twins & EU Green Deal	<b>Agate Ambulte</b>   Head of AI, Riga Stradiņš University, City of Liepaja <b>Edgars Indriksons</b>   Head of Data, Riga Digital Agency <b>Arnis Gulbis</b>   Director, Riga City Council
15:00 – 15:15	<b>LORDIMAS: your digital maturity assessment</b>	<b>Rodolphe Doité</b>   Project and Policy Manager, ERRIN
15:15 – 15:30	Coffee Break	

# Detailed Agenda Overview

## Phase 0: How to Start Your Digitalisation Journey



October 30th



14:00 EET

15:15 – 15:30	<b>Coffee Break</b>	
15:30 – 15:55	<b>Online Procurement Helpdesk: developing your digitalisation roadmap</b>	<b>Genoveva Gil García</b>   Tech Lawyer & Project Manager, Serendipity <b>Anastasia Sarantopoulou</b>   Project lead & tech law consultant, Serendipity <b>Laine Celma</b>   Deputy IT Director, Riga Digital Agency
15:55–16:50	<b>EU Data Spaces, Open Data Platforms and Local Digital Twins</b>	<b>Janis Krakops</b>   Head of Data Management Unit, VARAM <b>Viktorija Tabakurska</b>   Ministry of Transport, State Road Infrastructure <b>Diāna Tumene</b>   Latvian State Roads, National Traffic Information Centre <b>Boriss Jelisejevs</b>   Latvian State Roads, National Traffic Information Centre <b>Edgars Indriksons</b>   Head of Data, Riga Digital Agency
16:50 – 17:25	<b>Supporting ecosystems: Living-in.EU, EDIC, and Innovation Movement VEFRESH</b>	<b>Gabriela Ruseva</b>   Living-in.EU Project Coordinator, Eurocities <b>Artis Gustovskis</b>   Digital Innovation Hub Manager, Kuldīga <b>Arnis Gulbis</b>   Director, Riga City Council
17:25 – 17:35	<b>Funding opportunities</b>	<b>Viesturs Celmins</b>   Managing Director VEFRESH
17:35 – 17:45	<b>Closure, Next Steps, Living-in.EU ceremony</b>	<b>Viesturs Celmins</b>   Managing Director VEFRESH
17:45 – 18:30	<b>Networking Reception</b>	

# 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 white shirt is holding a tablet. The tablet screen shows a digital cityscape with a network of white lines connecting various points, representing a digital twin. The background is a blurred cityscape at sunset.

# INTRODUCTION: LOCAL DIGITAL TWINS

# INTRODUCTION TO LOCAL DIGITAL TWINS

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

Speaker:

- **Miguel Álvarez Rodríguez**, Policy officer (AI Office, DG CONNECT, Comisión Europea)
- **Arnis Gulbis**, Director of Riga City Council

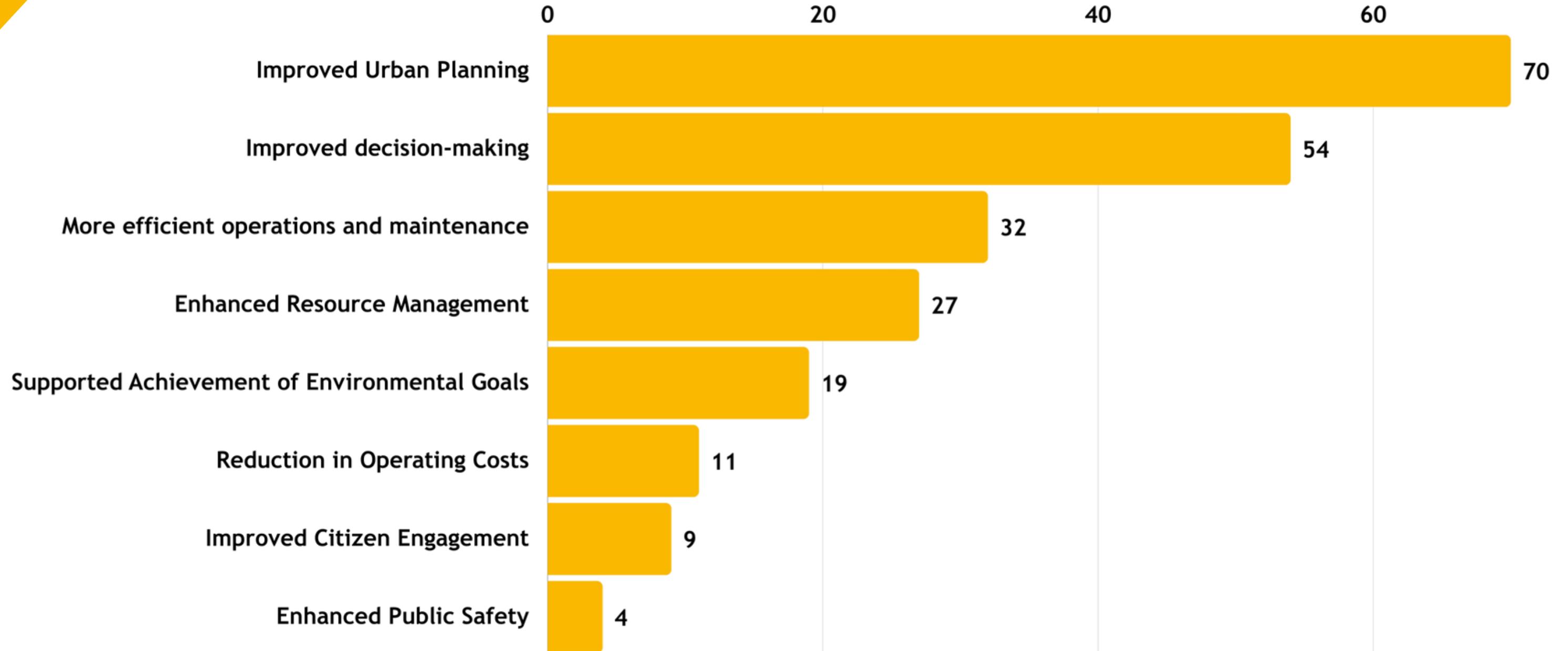


# What is a Local Digital Twin?

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



# What Are LDTs Used For?



# 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

Topography

Infrastructure data

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

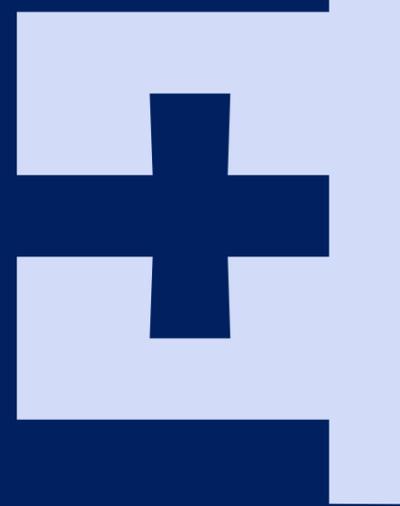
## Public safety

Facilities  
management

# 🌿 Data, the new soil 🌿

# Unique Value Proposition of LDTs





# Introduction to Local Digital Twins



Speaker: Arnis Gulbis  
Director of Riga City Council



SMART  
RĪGA

## Digital twins

Digital twins are now essential tools in **urban planning**, allowing cities to simulate different scenarios, **predict outcomes**, and make **data-driven decisions**

For Latvian cities, this translates into **smarter infrastructure** investment, **reducing energy** consumption, and **enhancing citizen services**



# PRIORITIES

Privacy and  
Safety

City connectivity

Mobility



Energy and  
Climate

Data solutions  
and IoT

Healthcare



# LIVING LABS

**KĪPSALA**



**VEF**



**TORŅAKALNS**



# PROJECTS

## CODING THE CURBS

Parking pilot project – smart zones for visitors. The objectives of the project are to develop a scalable platform for booking Smart Zones, establish a data analysis tool to measure the impact of Smart Zones, and create a handbook for implementing the Smart Zones.

Solution is piloted in the campus territory of the Riga Technical University, empowering logistic companies, local businesses, and citizens to easily access and book Smart Zones.

The web-based application provides a user-friendly interface for finding Smart Zones, reserving timeslots, and managing bookings. The solution can facilitate cities' transition towards the implementation of zero-emission zones.



# PROJECTS

## GREEN DASH

Pilot project is set to improve last mile deliveries and seamless utility service provision in collaboration with national postal delivery companies Latvijas Pasts (Latvia) and PostNord (Denmark), and Rīga Municipality.

Testing, improving, and demonstrating the benefits of EV cargo scooter thus addressing the urban logistics challenges fueled by the growing volume of e-commerce and creating seamless utility service provision solutions for cities.



# GEO RĪGA

Riga City Municipality geospatial data public portal,  
where anyone can view and use geospatial information  
and download geospatial data available to the  
municipality on Riga administrative territory



[georiga.lv](http://georiga.lv)



# THE PORTAL

## THEMATIC MAPS

+ **Latest Maps**

## OPEN DATA

2D and 3D data to download

## FAQ

Answers to frequently asked questions  
Manual

## ENGAGE

Questionnaires and surveys

## 3D RĪGA

3D maps

## ABOUT US

Our team and our goals

## NEWS

Current news on data layers, maps etc.  
published in the portal

## Language options:

LV and ENG

**Accesibility tool**



data analysis

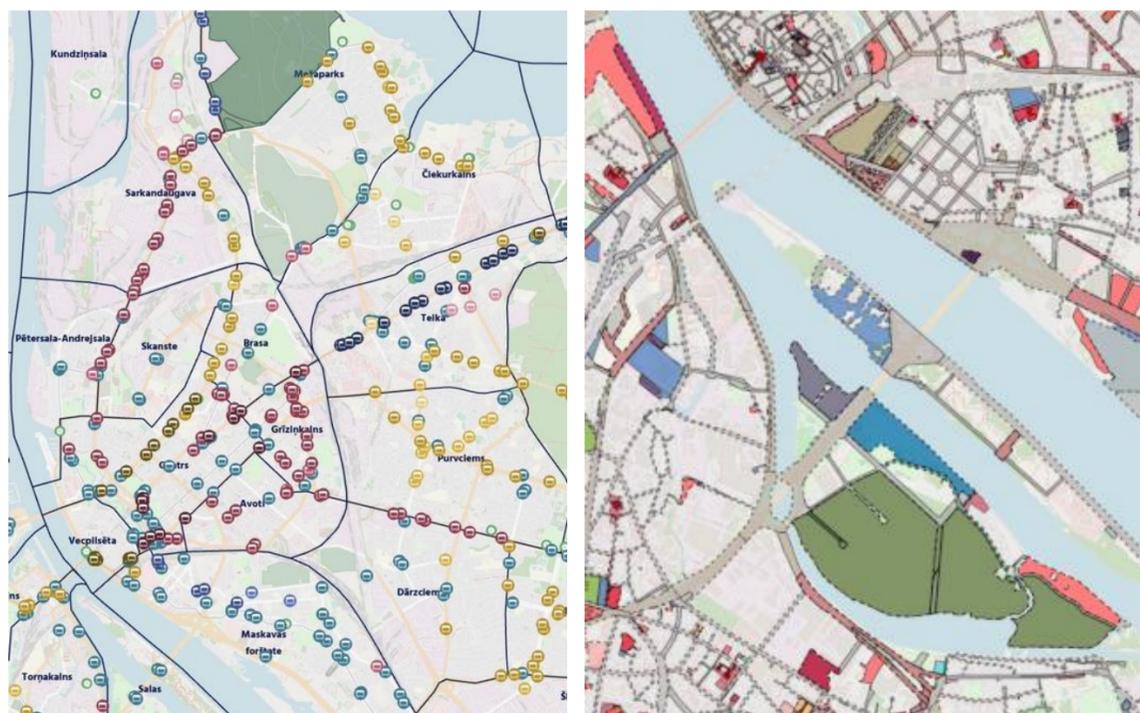
DATA COMPARISON

DATA MATCHING

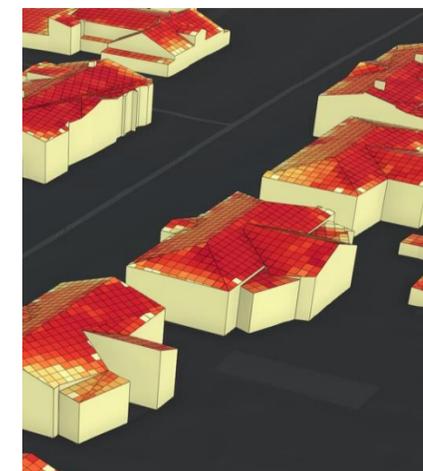
easy to use and available to everyone

# 2D DATA

More than 150 data layers



# 3D DATA



## RĪGA REALITY MODEL



12 Thematic maps

laser scan point cloud

building density model

solar energy potential

LOD2

LOD1

# FIGURES

01

## DATA SOURCES

15 Municipality Departments and Institutions. More than 10 external data holders.c

02

## DATASETS

More than 150 different data sets

03

## MAPS

12 thematic maps (2D). 8 thematic maps – products (3D)

04

## OPEN DATA

19 datasets . More than 108 data layers

05

## USERS

From 10 254 (2023) to 44 832 (2024)  
Residents, entrepreneurs, investors, scientists etc.

06

## PORTAL

2 Portals: IN portal and OUT portal  
2 languages

07

## TEAM

1 strategist, 1 team leader, 6 GIS specialists, 3 technical specialists

08

## ACTIVITIES

Digital Week, Riga Summer 2024, Baltic GIS user conference etc.

A person in a white shirt is holding a tablet. On the tablet, a digital cityscape is displayed, featuring several tall skyscrapers with glowing windows. A white network of lines and nodes is overlaid on the city, representing a digital twin or smart city infrastructure. The background of the image is a blurred cityscape at sunset or sunrise.

# LOCAL DIGITAL TWINS AND THE EU GREEN DEAL

# LOCAL DIGITAL TWINS AND THE EU GREEN DEAL

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

Speakers:

- **Edgars Indriksons**, Head of Data, Riga Digital Agency
- **Arnis Gulbis**, Director of Riga City Council
- **Agate Ambulte**, Head of AI, Riga Stradinš University, City of Liepaja



# Local Digital Twins & EU Green Deal (& *Expedite*)

Speaker: Edgars Indriksons  
Director of Riga digital agency



Speaker: Arnis Gulbis  
Head of data

# Smart Riga & Digital Transformation Journey



**2021**

Municipality launches **3** smart city living labs



**2022**

EU Mission for **100 climate neutral and smart cities by 2030**



**2023**

**Midterm strategy** of RDA 2023-2025 approved



**2024**



[www.SmartRiga.lv](http://www.SmartRiga.lv)

Moodle system  
RUMIS project  
Data infrastructure  
Direct funding EU projects launched

National coordination for EC EDIC on LDT & CitiVerse



**Connectivity**  
**Data solutions & IoT**  
**Mobility**  
**Energy & Climate**  
**Privacy & Safety**  
**Healthcare**



**Data analytics & EU collaboration** teams endorsed

**GEO RIGA** public portal launched



**Riga Digital Agency (RDA)** was launched

**Smart City Development Division** established

Municipality **Innovation Fund** established



# Successful EU Partnerships

EU partners

EC DG Connect, LIVING-IN.EU, EURO CITIES, OASC (MIM7), ERRIN, LORDIMAS TOOL, EDIC LDT&Citiverse

CEF Digital 5g4LIVES

5G infrastructure, drones



HORIZON ExPEDite

Positive Energy Districts



Interreg AI4CITIZENS

Ethical AI governance



# What`s next?



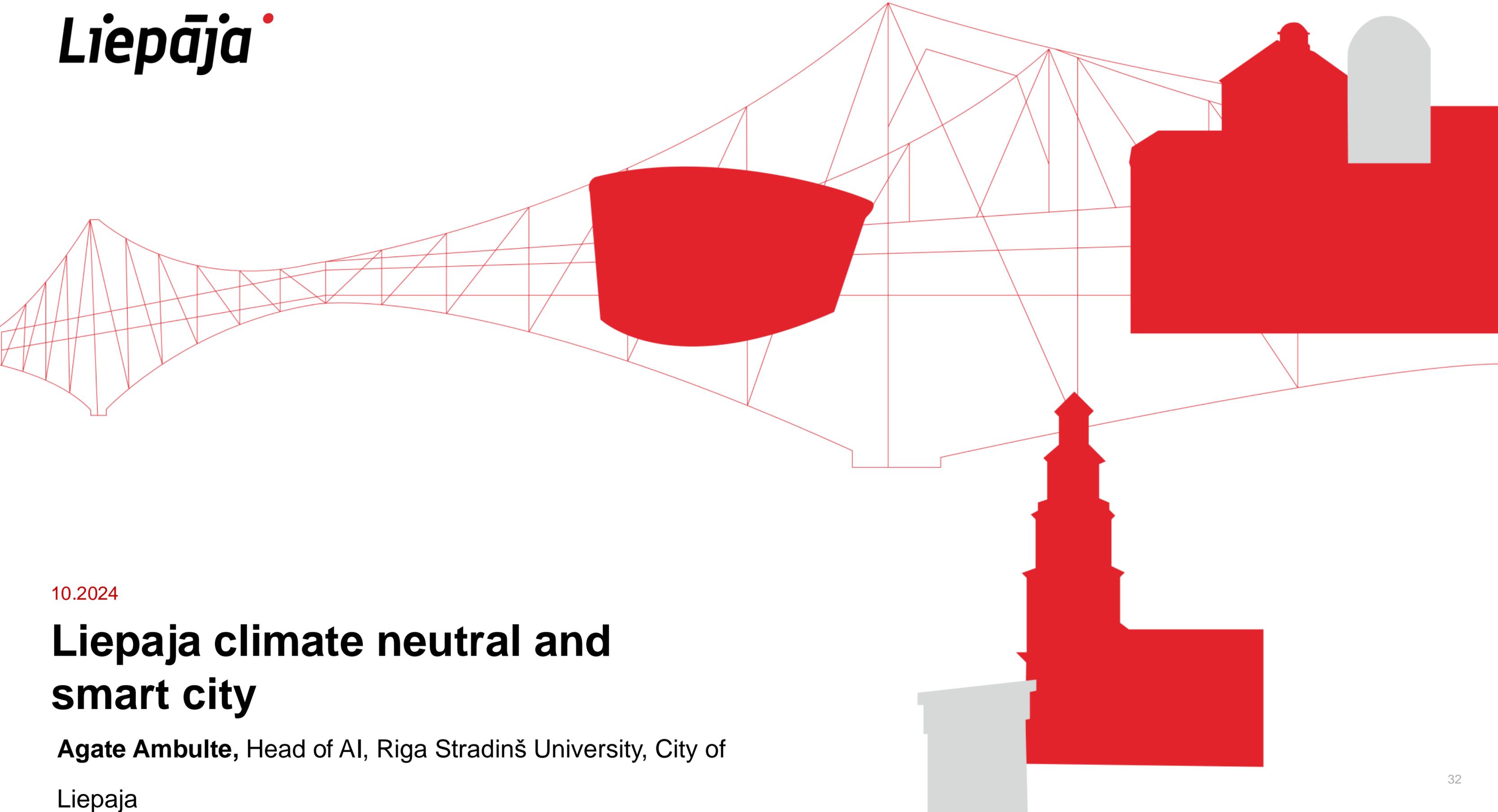
Targeted and long-term support for the development of the smart city of Riga to create a livable, safe and authentic environment, using the opportunities offered by science, innovations and modern technologies.

# Expedite project

- Modeling the movements and behaviors of individuals within transportation system on a micro and macro-scale level
- Transportation simulation software
- Need for city-wide transport supply
- Data-driven predictions
- Data driven predictions of traffic flows
- ML models trained on traffic sensor data
- Energy consumption forecasts based on accurate predictions of speed, traffic flows, etc.
- Interesting and unique cases



***Liepāja***



10.2024

## **Liepaja climate neutral and smart city**

**Agate Ambulte, Head of AI, Riga Stradinš University, City of**

Liepaja

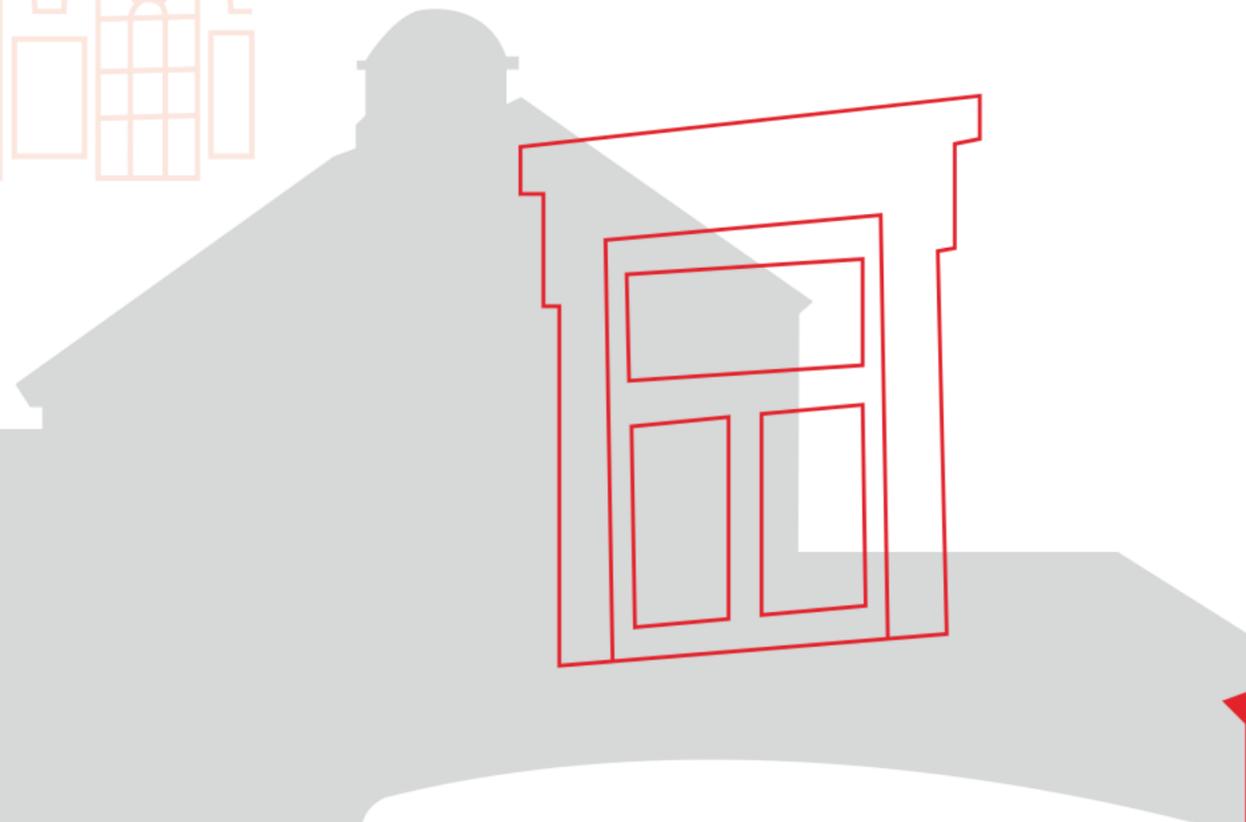
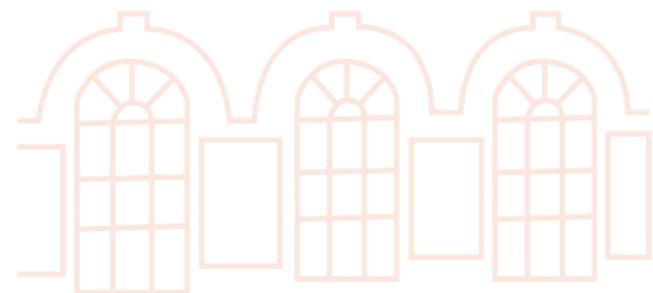


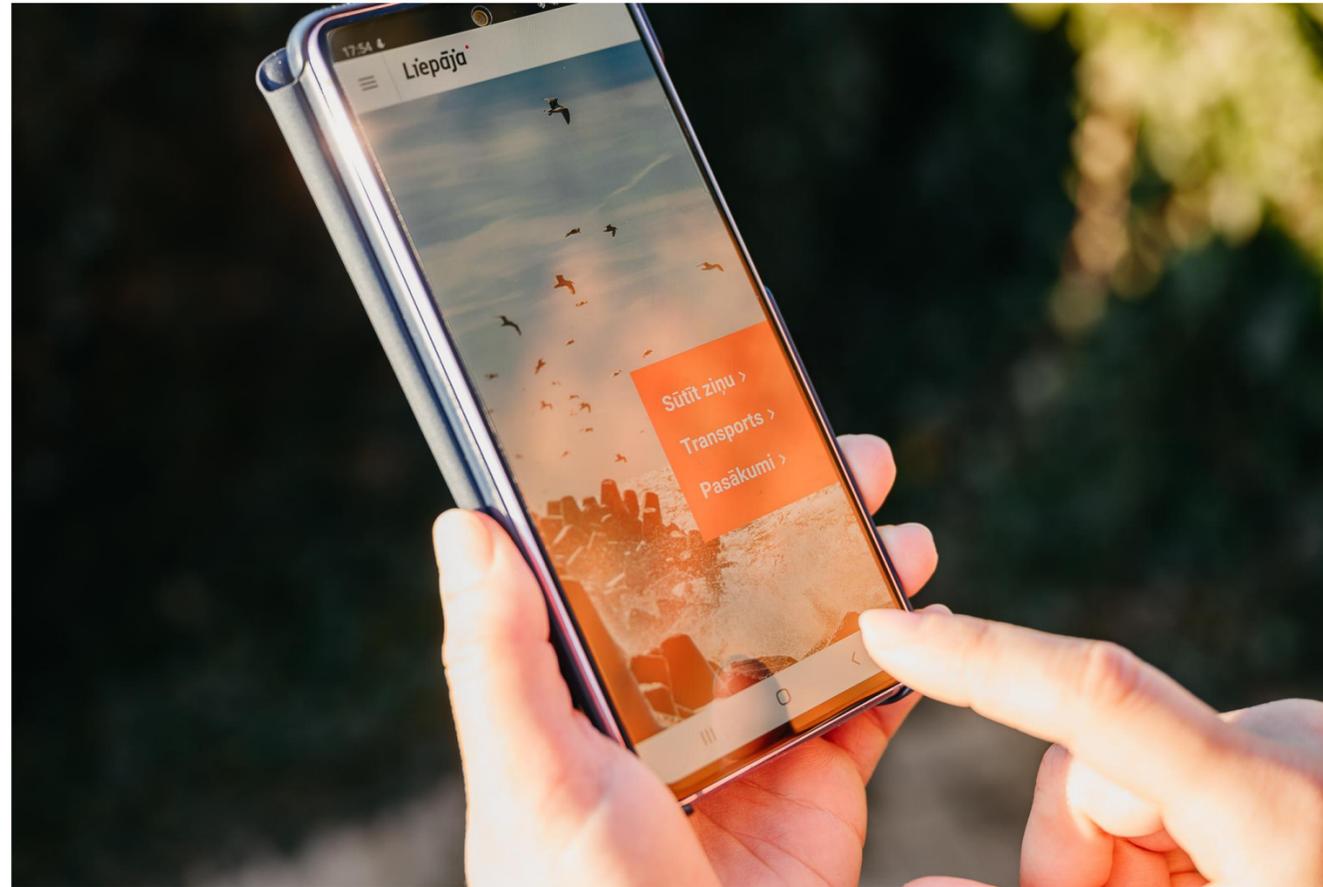
## Global scope with the comforts of a small town

- Liepāja is the third largest city in Latvia and the tenth largest city in the Baltic States
- ~ 70 thousand population in the city
- Climate neutral mission city 2030
- European Capital of Culture 2027
- Liepāja Smart City Roadmap: Transformative Mentorship, Knowledge Sharing and Collaboration with Valencia

# Priorities

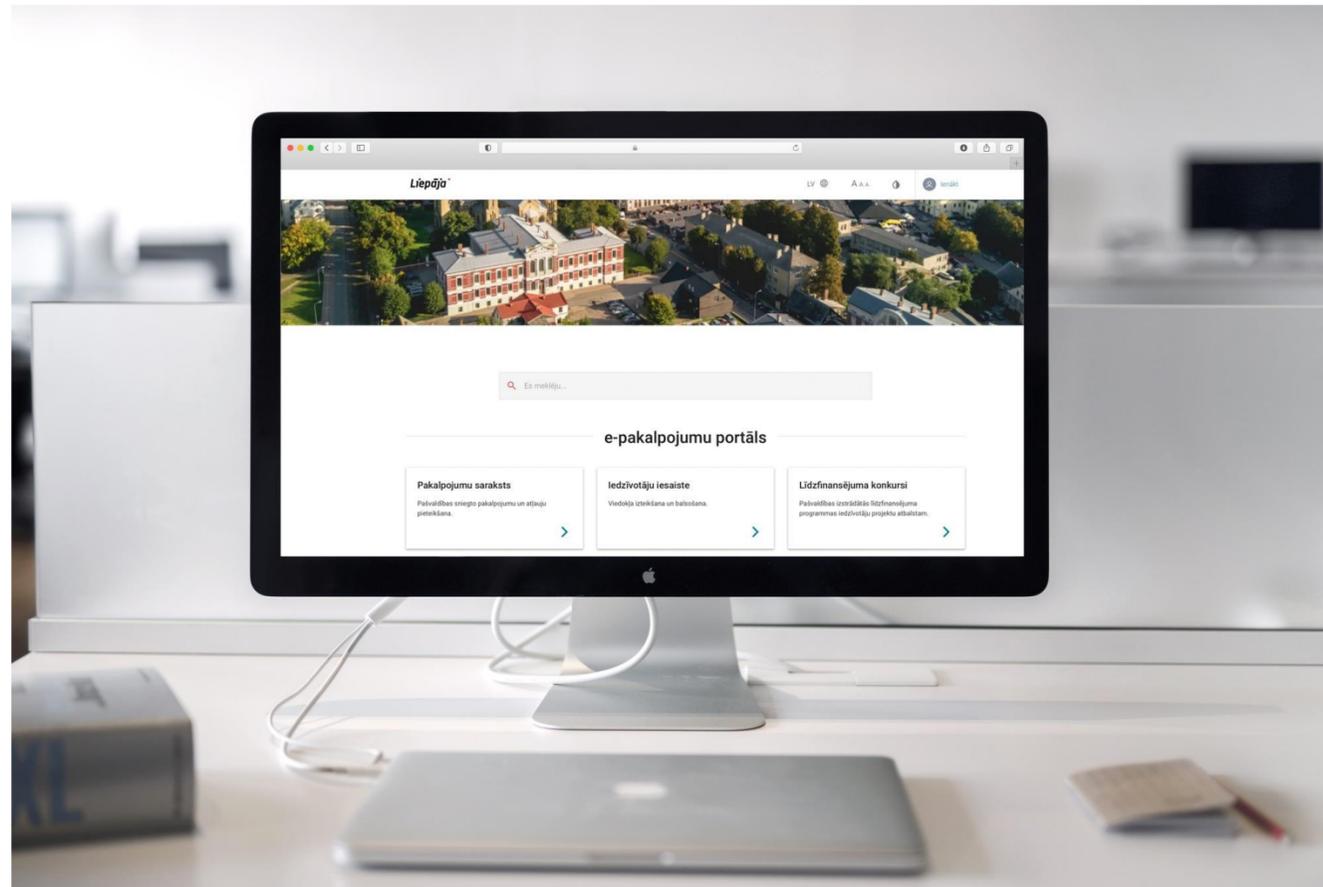
*Liēpāja*





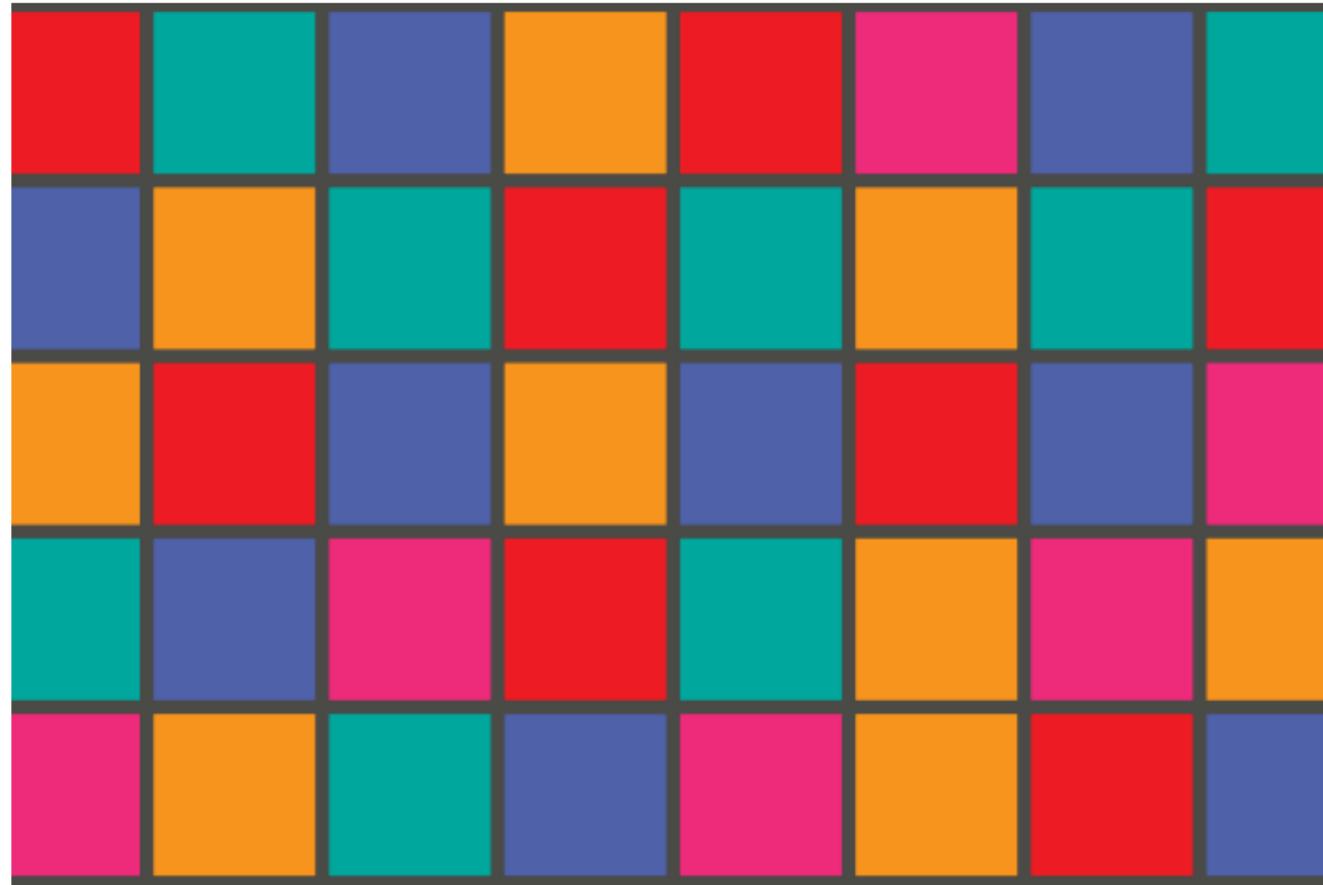
## **Mobile app «Liepāja city»**

- Communication channel
- Public transport and e-payments
- Calendar
- Police module
- Google map
- Tourism
- E-service portal



## E-service portal

- E-services
- Applications
- Cofunding projects
- Citizen engagement
- Online registration
- Data platform



## Smart City

- City Platform & Digital Twin
- Sensors (in waste bins, transport, chanel)
- Cameras
- Data storage and BA tools
- E-learning platform
- Digital & Dematerilization Municipalities
- Experience exchange (Wegenerate, Energy cities, TAIEX)
- Smart City Road map



## Liepaja as an example

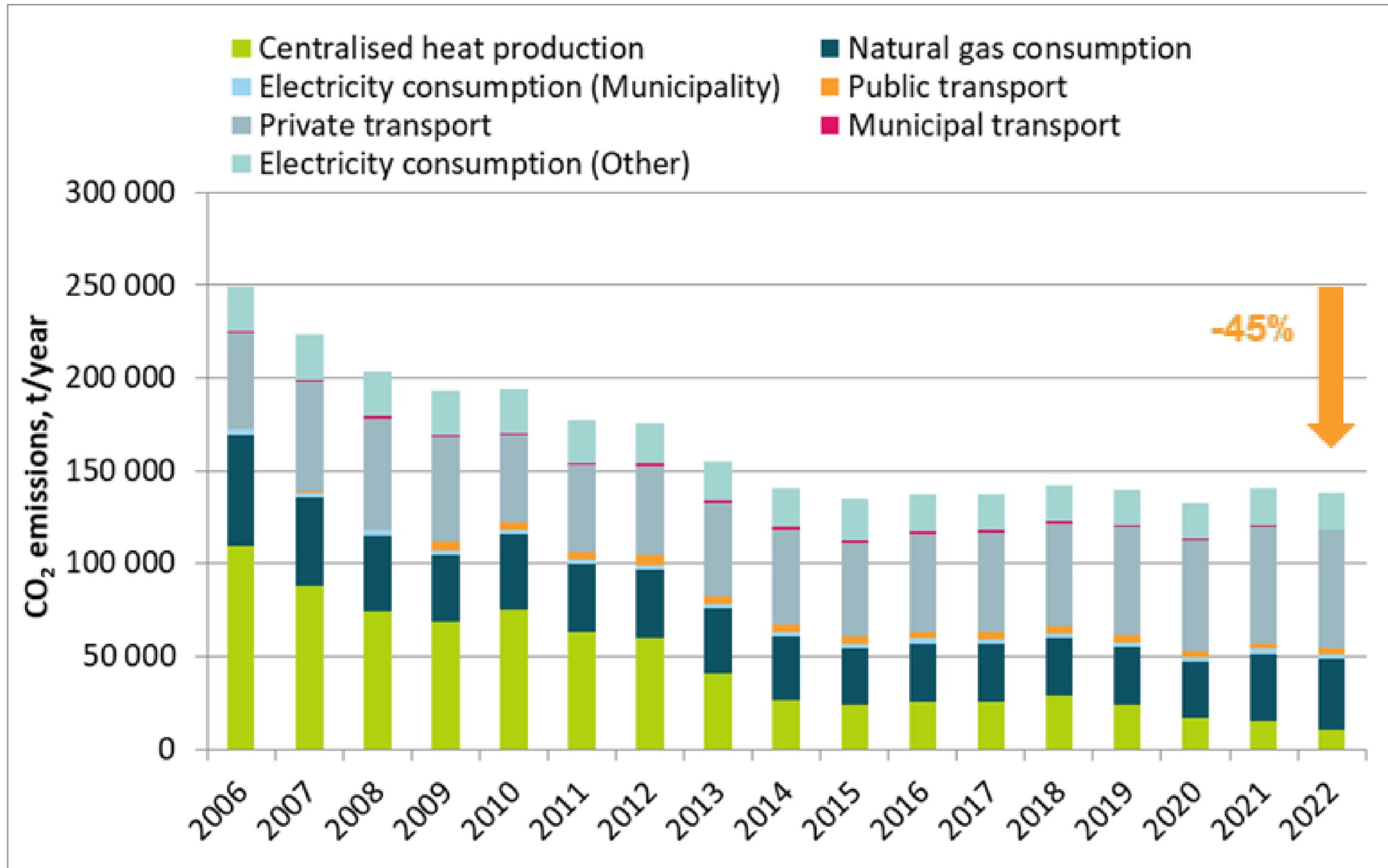
- Energy management system (2016) and online monitoring system (2019)
- Renovation of buildings (since 2007)
- Municipal support programmes
- Smart solutions for traffic organization
- ESCO service for indoor lighting
- Remote control of heat nodes
- Principles of good governance, customer service, e-services and mobile application, etc.



## Cities Mission

- The first city from the Baltic States – has received the EU Mission Label
- Commitment
- Action plan and Investment plan
- Liepāja benefits from priority in EU funding programs like Horizon Europe, with added points in evaluations for Mission Label cities.
- Accesses specialised funding, technical support from the Climate City Capital Hub, and European Investment Bank financing.

# CO2 emissions in Liepaja 2006-2022

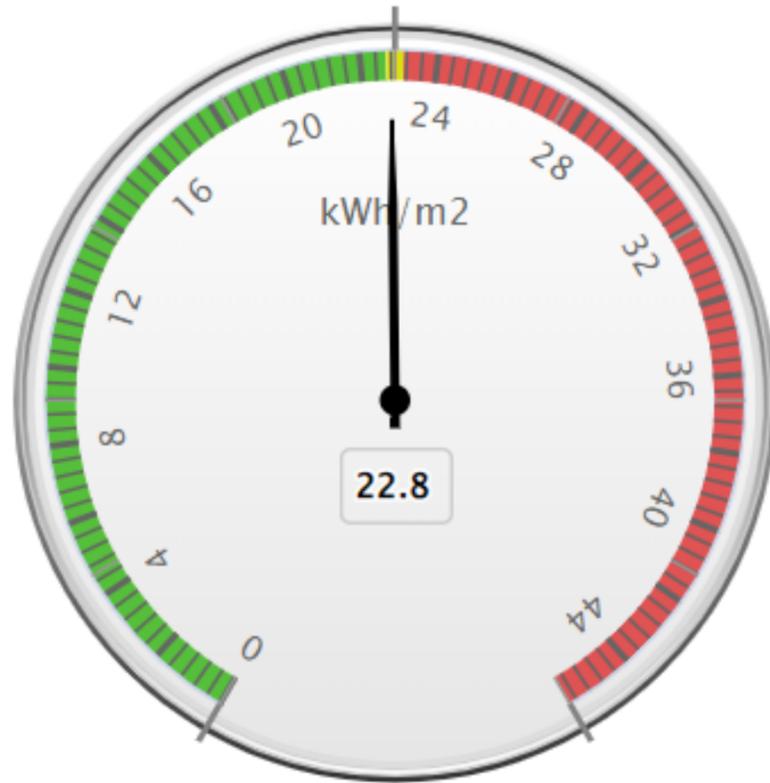




## Examples

- Liepaja has Latvia's first smart traffic light, incorporating machine vision technology for improved road safety.
- This device, integrated into the traffic monitoring system, records information on drivers violating red lights, facilitating the imposition of administrative penalties by the Road Traffic Safety Directorate and the Municipal Police.
- While a notable advancement in road safety, it's crucial to highlight that the current smart traffic light lacks a specific CO2 measuring option.

Dati par 2023. gadu  
Mērķis – 22.9 kWh/m<sup>2</sup>  
Apkures diena nr. 287

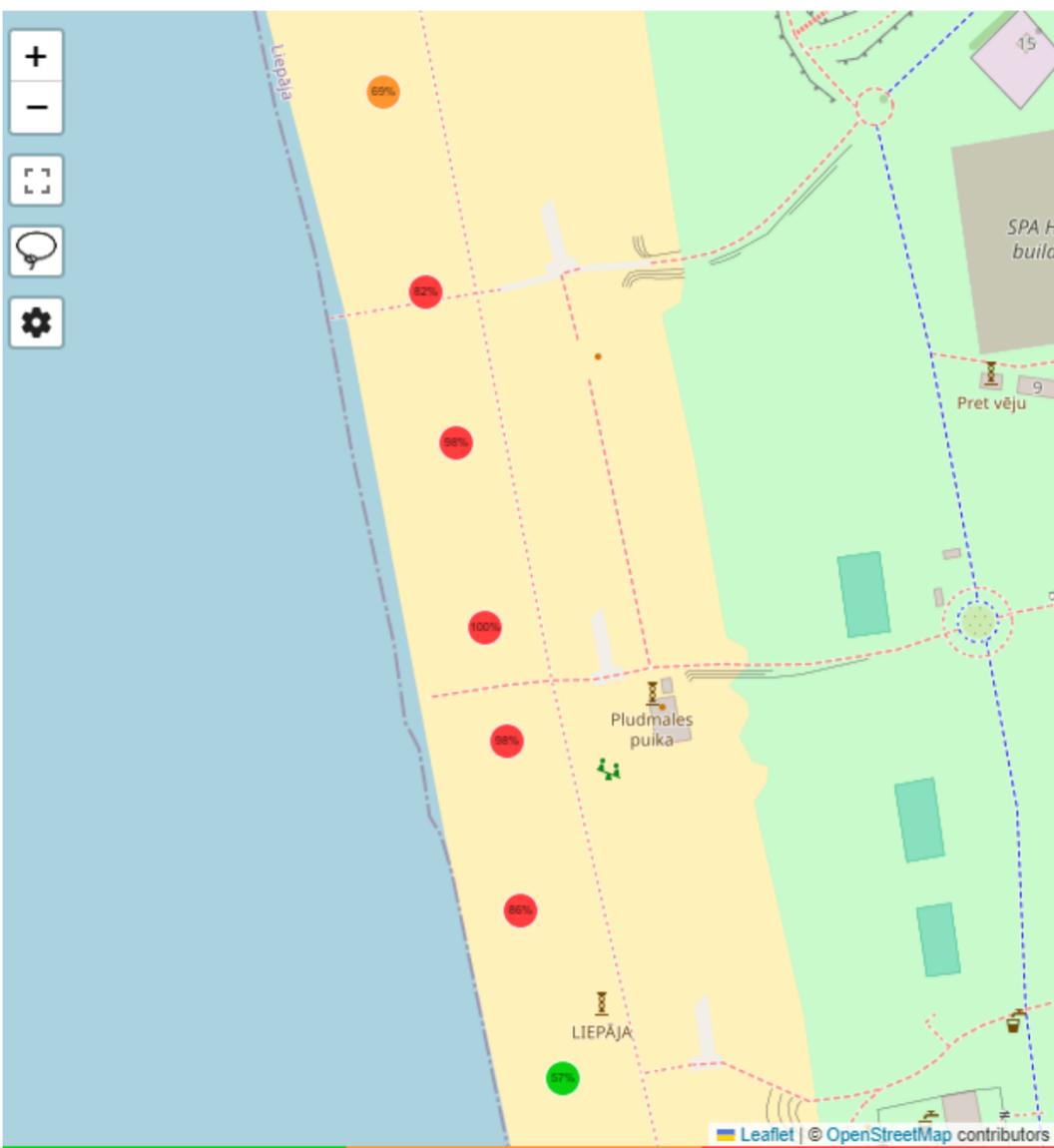


Info	
m <sup>2</sup> :	5037.8
Mērķis (kWh/m <sup>2</sup> /gadā):	22.9
Teorētiski pašreiz (kWh/m <sup>2</sup> ):	22.9
Faktiski pašreiz (kWh/m <sup>2</sup> ):	22.8
Starpība (kWh/m <sup>2</sup> ):	0.1
Apkures dienas (teor./fakt.):	193/287
Telpu mērķa t (°C):	20
Ekonomija (%):	-0.4

## Online energy monitoring system with company «Energodata»

- ~70 municipality's buildings
- Online data for heating, humidity, CO<sub>2</sub> levels
- Financial benefits for building managers and structures

# Online waste management data with «Goodman group»



**1 %**  
 bins  
 kg

**66 %**  
 3 bins  
 0 kg

**75 %**  
 7 bins  
 0 kg

Itinerary planning
Add collection plan
Export all
Columns
Clear filters

Stand code	Stand fill level	City	Address	Bin code	Device EUI	Bin fill level	Trash type	Status	RFID	Sensor ID				
1	100%	Liepāja (LV-34)	Pludmale	<input type="checkbox"/>	1	89310834231039492796	100%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB1B			
11				<input type="checkbox"/>	11	89310834231039513096	100%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CA48			
10	98%			<input type="checkbox"/>	10	89310834231039493606	98%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB34			
12				<input type="checkbox"/>	12	89310834231039513176	98%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB1F			
13	86%			<input type="checkbox"/>	13	89310834231039513256	86%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CA4D			
9	82%			<input type="checkbox"/>	9	89310834231039493526	82%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CA50			
6	78%			<input type="checkbox"/>	6	89310834231039493296	78%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CA44			
7	72%			<input type="checkbox"/>	7	89310834231039493376	72%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB30			
15	71%			<input type="checkbox"/>	15	89310834231039513416	71%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB2F			
8	69%			<input type="checkbox"/>	8	89310834231039493456	69%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB38			
14	57%			<input type="checkbox"/>	14	89310834231039513336	57%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CBDC			
2				<input type="checkbox"/>	2	89310834231039492876	57%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000DCB2			
5	34%			<input type="checkbox"/>	5	89310834231039493116	34%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000DCB5			
4	33%			<input type="checkbox"/>	4	89310834231039493036	33%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CB3A			
3	27%			<input type="checkbox"/>	3	89310834231039492956	27%	COMMUNAL	<input checked="" type="checkbox"/>		SS7000CA51			



## Initiative - Low emission zone CO2 monitoring

- Together with company «GaiaHub» develop new methodology for CO2 calculations
- Objective - establish a low-emission zone in Liepāja by integrating CO2 monitoring technology to reduce emissions
- Streamline data collection with advanced cameras and sensors to efficiently monitor and manage urban traffic emissions in real time

# Development of City's data platform with «GaiaHub»

GaiaHub Liepāja helps the people of Liepāja track environmental metrics like CO2 emissions, number of cars, lorem ipsum dolor sit amet.

Read about the pilot project →

go to admin web

Featured intersection name: Lorem Ipsum 44 | Dolor Sit Amet 22, City region

Emissions by source: 5.000,00 (50 Orders)

Source	Percentage
Private cars	70%
Buses	17%
Other	13%

Emissions by type: 5.000,00 (50 Orders)

Type	Percentage
Fossil	30%
Electric	70%

Average emissions today

Value	Target
15	300
1,25	250

The city is on track!

Something else?

[content from Liepāja]

# What's next – new regulation for pilot territories

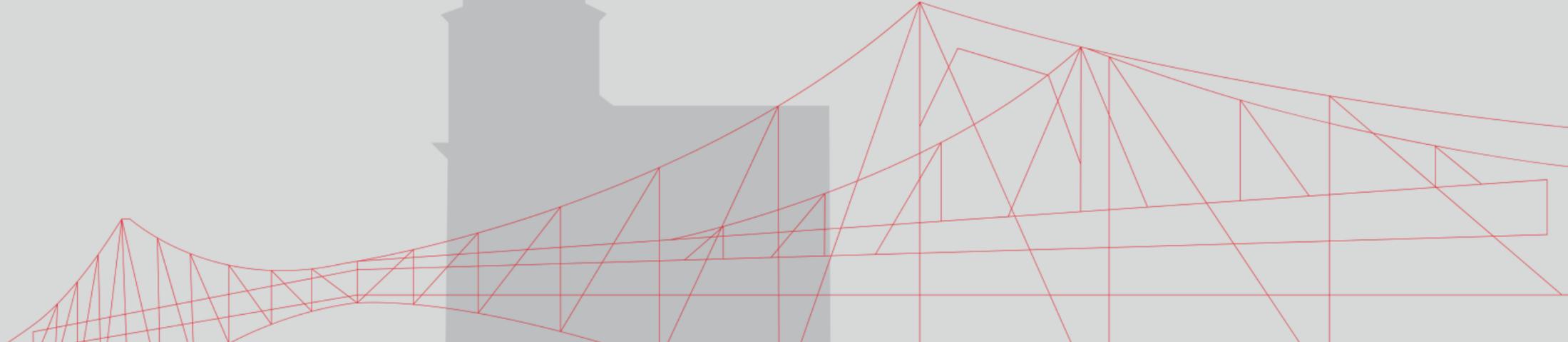
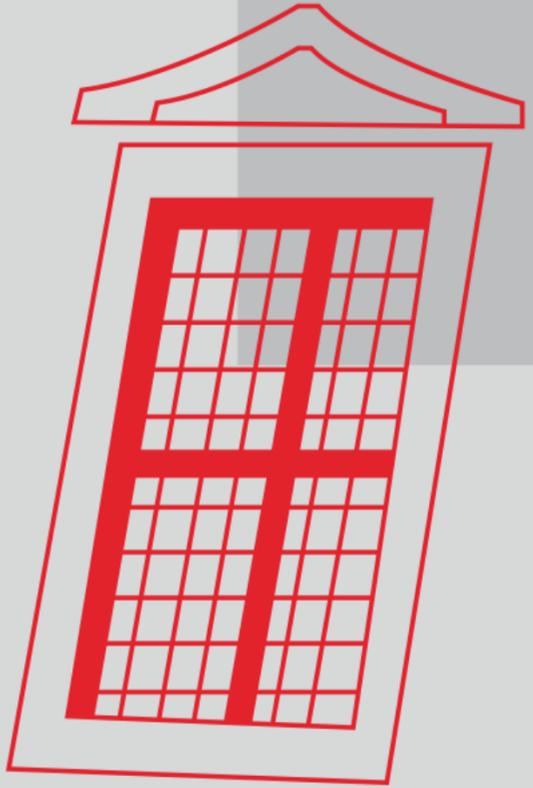
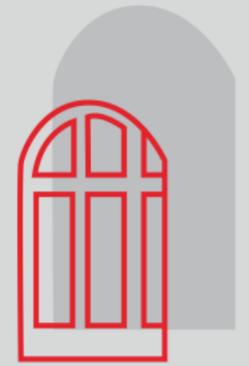
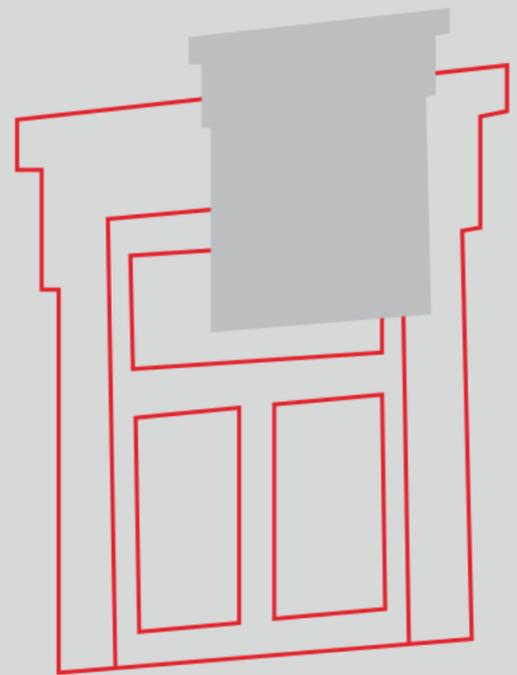
- Pilot territories will establish **low-emission zones** to enhance air quality and support climate neutrality.
- Key **locations** include Lielā street, residential areas, Liepāja SEZ, digital spaces, and public event areas, with additional options like schools and parks.
- Objectives include **reducing CO2** emissions, increasing resource efficiency, and boosting public engagement through data-driven urban planning.
- **Innovative technology** like air quality sensors and digital platforms will support participatory planning.
- Companies will receive **support** for testing sustainable solutions, with financing, infrastructure, and data access to foster green innovation.



## Existing barriers

- Effective climate action often relies on more **active participation** and support of the community
- There is **lack of significance** at the national level
- The municipal **budget** funds are allocated primarily for ensuring basic needs, leaving little room for innovation or comprehensive projects

**Thank you!**



# 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

#### 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 white shirt is holding a tablet. The tablet screen displays a city skyline at night, with several skyscrapers illuminated. A white digital network overlay, consisting of interconnected nodes and lines, is superimposed on the cityscape. The background of the entire image is a blurred cityscape under a sunset sky.

# LORDIMAS: YOUR DIGITAL MATURITY ASSESSMENT

# LORDIMAS: YOUR DIGITAL MATURITY ASSESSMENT

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

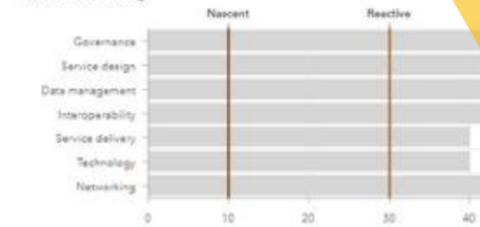
Speaker:

**Rodolphe Doité**, Project and Policy Manager (ERRIN)

Level: Digitally emerging  
Maturity score: 45/100



Indicator scoring



# DISCOVER LORDIMAS

*Your digital maturity assessment*

Rodolphe Doité, ERRIN and Living-in.EU  
representative



Supported by:



## **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

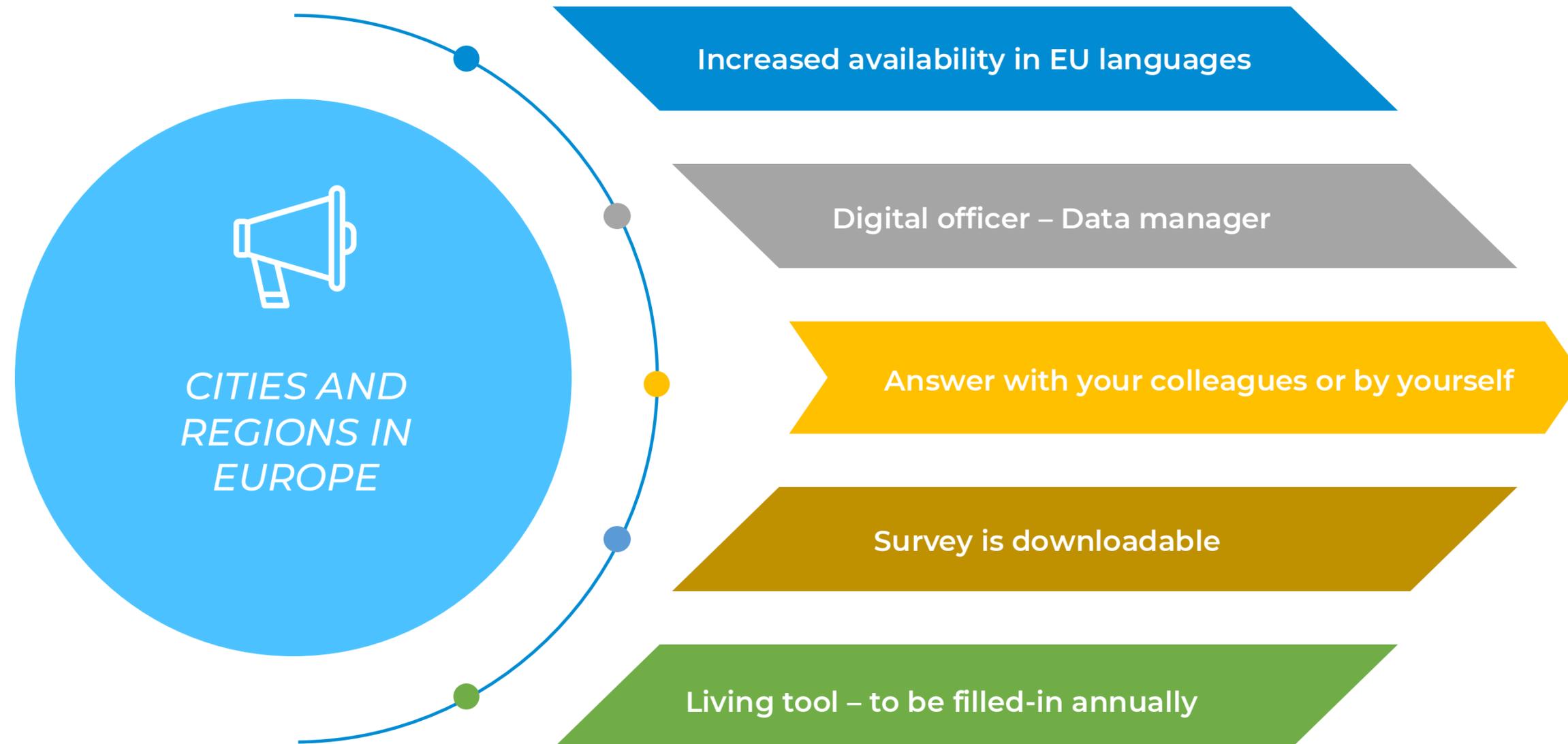
*Policy recommendations*

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

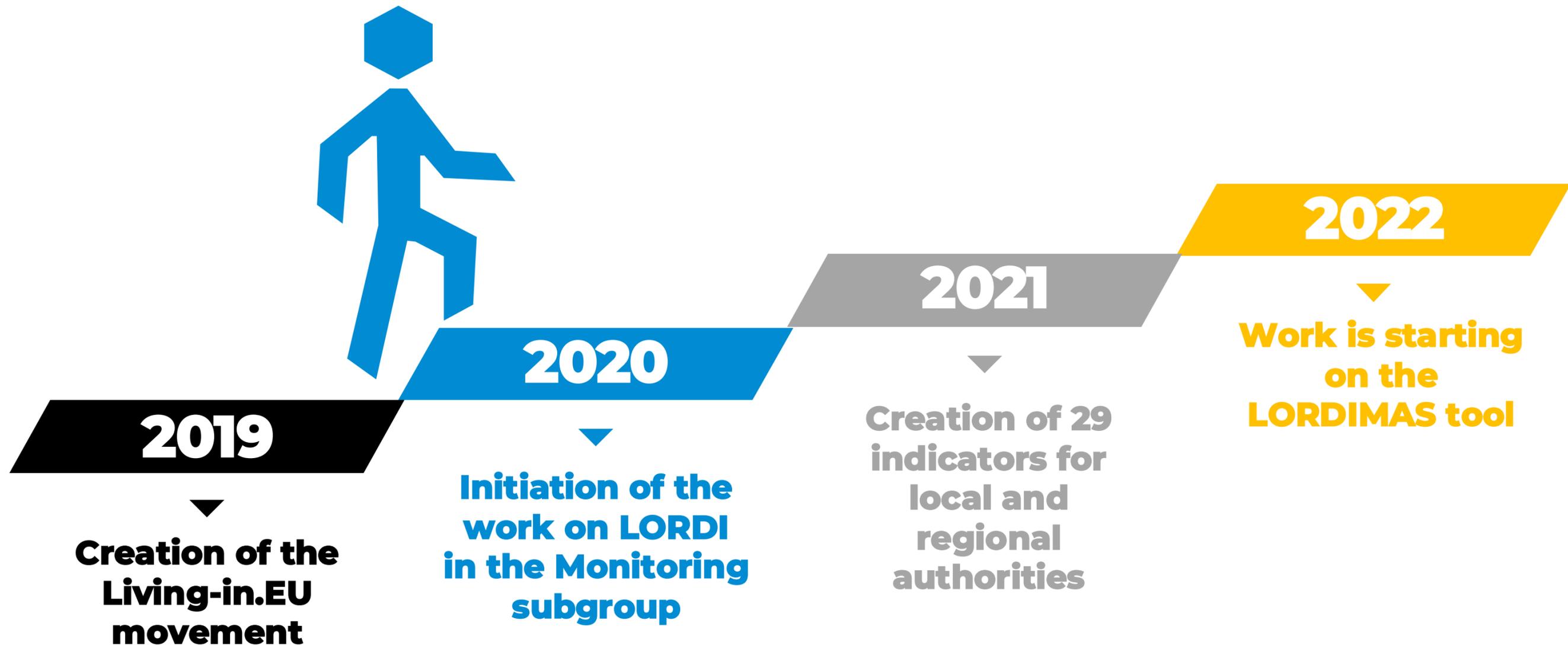
# What is LORDIMAS?

*A functional approach*

# What else to know about **LORDIMAS**?



# Where do **LORDIMAS** come from?



# How was **LORDIMAS** created?

*A collaborative work with many stakeholders*



# How was **LORDIMAS** created?

*A collaborative process*



First presentation in the M&M subgroup of Li.EU



Launch of the ALPHA test for the LORDIMAS tool, focused on the survey



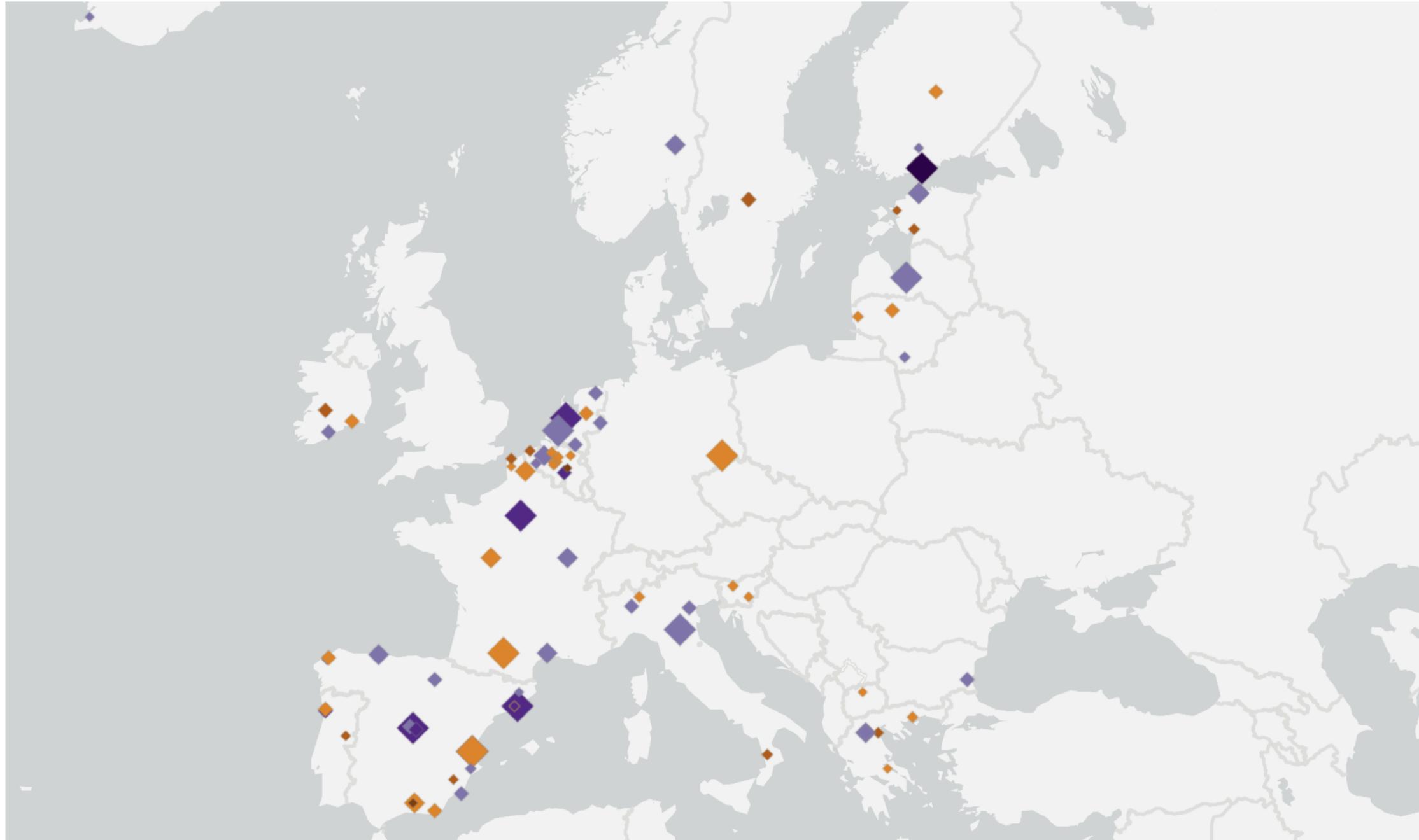
Launch of the BETA test on the full iteration of the LORDIMAS Platform



Official release of the tool during the EWRC 2023

# And **since** then?

*A steady uptake*



# And **since then?**

*A steady uptake*



From 19  
countries



With the  
support of Riga  
from the  
beginning of the  
process



With 80 answers  
in total on the 88



## And now?



- Achieve **critical mass** to ensure the usability of LORDIMAS
- Foster **exchange of knowledge** through good practices
- Facilitate the **uptake of digital transformation solutions** at local and regional level

# The role of Living-in.EU

- Integrate LORDIMAS as a Living-in.EU **asset**
- Foster **collaboration** and co-creation with Living-in.EU signatories
- **Support** signatories in using the tool





## What are our objectives?

- Use the Monitoring and Measuring working group to **share the vision** of cities and regions
- Integrate **collaborative processes** on LORDIMAS in our activities
- Develop LORDIMAS for cities and regions, **with cities and regions**

# Our ideas

- Collaborative work on the **good practices**
- **Co-creation** of future policy recommendations to harness the knowledge and expertise of cities and regions
- Integrate LORDIMAS in the local and regional authorities' **journey towards digital transformation**



SIGN THE

DEFLARATION

# MONITORING AND MEASURING WORKING GROUP



[lordimas.espon.eu](http://lordimas.espon.eu)

**Get in touch**

rodolphe.doite@errin.eu



# After the Break...

## Phase 0: How to Start Your Digitalisation Journey



October 30th



14:00 EET

15:15 – 15:30	<b>Coffee Break</b>	
15:30 – 15:55	<b>Online Procurement Helpdesk: developing your digitalisation roadmap</b>	<b>Genoveva Gil García</b>   Tech Lawyer & Project Manager, Serendipity <b>Anastasia Sarantopoulou</b>   Project lead & tech law consultant, Serendipity <b>Laine Celma</b>   Deputy IT Director, Riga Digital Agency
15:55–16:50	<b>EU Data Spaces, Open Data Platforms and Local Digital Twins</b>	<b>Janis Krakops</b>   Head of Data Management Unit, VARAM <b>Viktorija Tabakurska</b>   Ministry of Transport, State Road Infrastructure <b>Diāna Tumene</b>   Latvian State Roads, National Traffic Information Centre <b>Boriss Jelisejevs</b>   Latvian State Roads, National Traffic Information Centre <b>Edgars Indriksons</b>   Head of Data, Riga Digital Agency
16:50 – 17:25	<b>Supporting ecosystems: Living-in.EU, EDIC, and Innovation Movement VEFRESH</b>	<b>Gabriela Ruseva</b>   Living-in.EU Project Coordinator, Eurocities <b>Artis Gustovskis</b>   Digital Innovation Hub Manager, Kuldiga <b>Arnis Gulbis</b>   Director, Riga City Council
17:25 – 17:35	<b>Funding opportunities</b>	<b>Viesturs Celmins</b>   Managing Director VEFRESH
17:35 – 17:45	<b>Closure, Next Steps, Living-in.EU ceremony</b>	<b>Viesturs Celmins</b>   Managing Director VEFRESH
17:45 – 18:30	<b>Networking Reception</b>	



# ONLINE PROCUREMENT HELPDESK: DEVELOPING YOUR DIGITALISATION ROADMAP

# ONLINE PROCUREMENT HELPDESK: DEVELOPING YOUR DIGITALISATION ROADMAP

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

Speakers:

- **Genoveva Gil García**, Tech lawyer & Project Manager , Serendipity
- **Anastasia Sarantopoulou**, Project Lead & tech law consultant, Serendipity
- **Laine Celma**, Deputy IT Director, Riga Digital Agency

# The importance of developing digitalisation roadmaps



National Digital Decade strategic roadmaps



# How to Develop Your Digitalisation Roadmap



Strategy and decision makers



IT/Data/Architecture specialists



Thematic experts



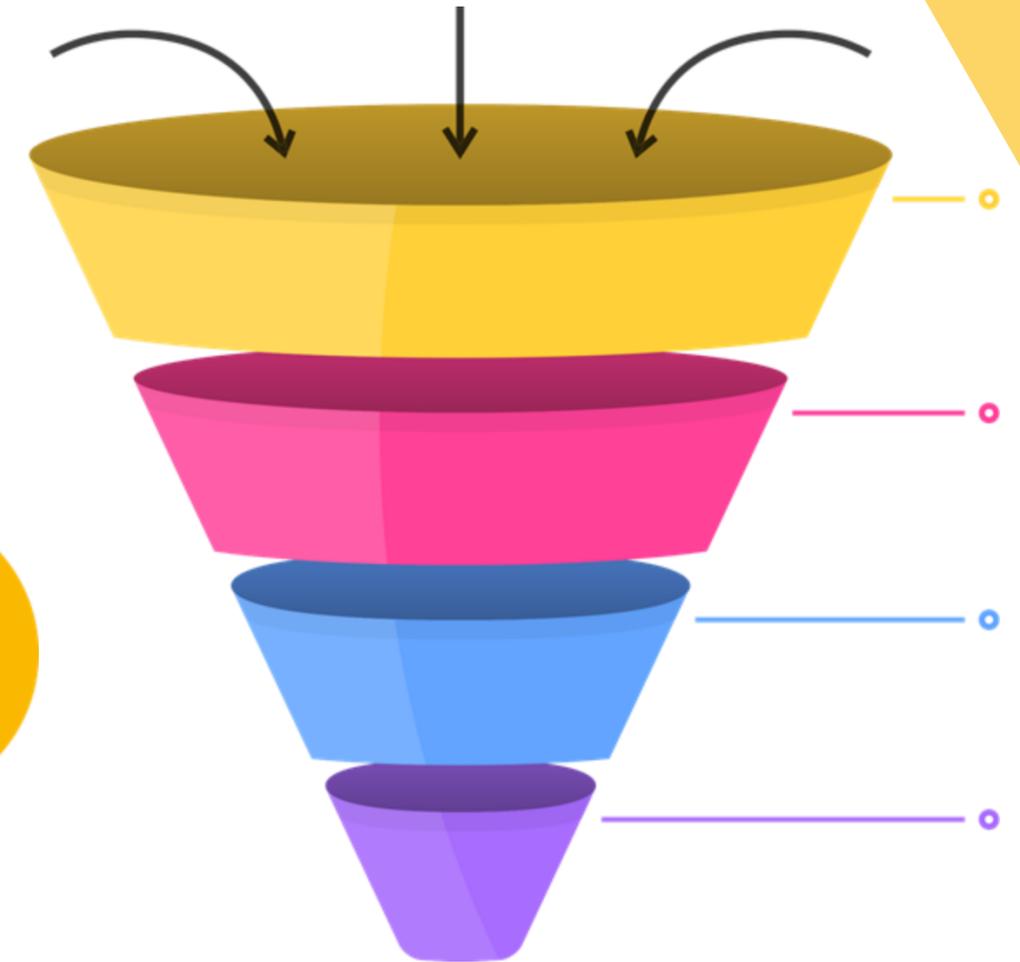
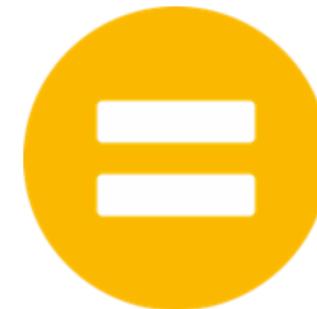
Digital Maturity Assessment



Strategy Assessment



IT Infrastructure Assessment



**Digital transformation roadmap**  
with key milestones and identification  
of **procurement needs**

# Get Support through the Online Procurement Helpdesk



- **Accelerating digital maturity** of less digitally ready EU cities and regions.
- **Foster digital strategies**, local digital twins and other digital solutions across rural and urban areas.
- **150 EU cities** will receive support services\*

\*The service will be **transferred to the EDIC** to scale-up to every city in the EU



- A detailed and **tailored digitalisation roadmap**
- **Expert guidance** to develop, review and prepare the implementation of a **digital strategy**.
- Alignment with **EU standards, principles and regulations**
- **Procurement support**, including procurement guidelines and procurement templates.

**Support equivalent to 100+ days of consultancy services.**

# 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

# Procurement Helpdesk

LIVING-IN.EU

DIGITAL TOOLBOX

H.J. van der Sandt, Utrecht

Support

Log out

Good morning, Henk jan

Do you want to continue where you left off?

Resume Strategy Assessment →

## Your assessments

1/3 completed



Lordimas Assessment

View results



Strategy assessment

Resume →



IT Infrastructure Assessment

Locked

## Roadmap

! Please complete all assessments

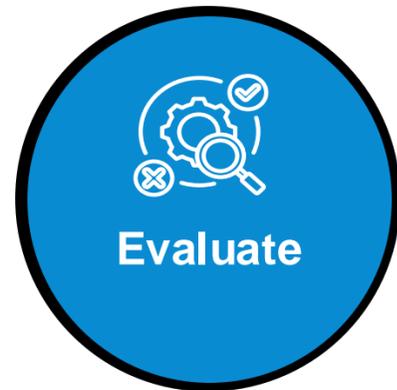
Download Roadmap

## Need some help?

Visit the [Support](#) page or [Ask us a question](#).

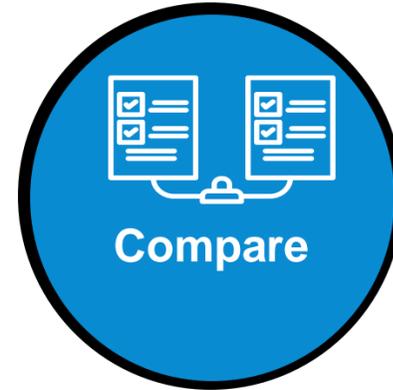


# LORDIMAS: your digital maturity assessment



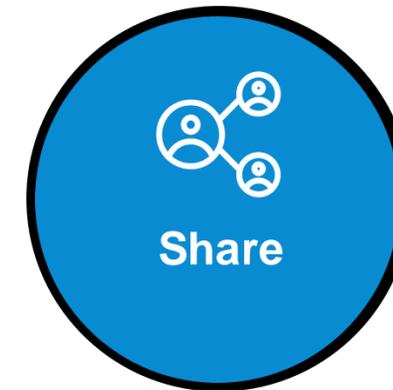
## A digital maturity tool

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



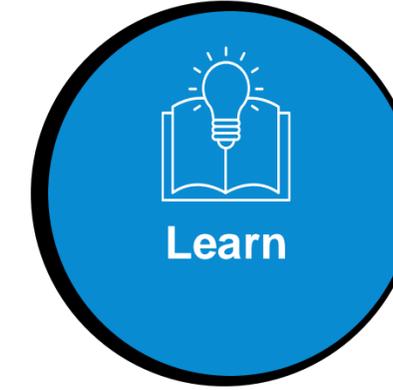
## An interactive dashboard

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



## Repository of good practices

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



## Policy recommendations

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



# Strategy Assessment

## Business & Strategic Vision

- Identify community's goals for implementing a Local Digital Platform (LDP), and later a Local Digital Twin (LDT)
  - Identify sectors that the community wants to invest in and that may benefit from the implementation of a LDP or LDT

## Value

- Allows for a more focused roadmap, taking into consideration the community's strategic priorities that should be fostered by advancements in its digital infrastructure.
- Provides valuable insights for the European Commission on the key strategic priorities within the EU communities, which can be leveraged to inform targeted policy making in the future.

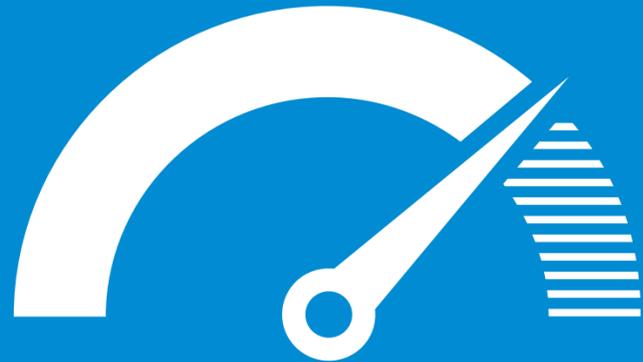


The main goal of this Assessment is to **understand a community' strategic priorities on digitalisation** as well as the key investment areas in terms of services and sectors.

# IT Infrastructure Assessment

**Evaluate IT infrastructure to better infer about technical maturity, through core infrastructure capabilities that enable the development of a Local Digital Platform (and an LDT).**

## DIGITAL PLATFORM



Aims to characterise the current maturity level of digital platforms/verticals and their interoperability. It will also contribute to a better understanding of which data process mechanisms are in place and how data collection is handled

## INFRASTRUCTURE



Aims to understand the infrastructure that the city/community has in place, namely the physical and technological backbone that could support (or is already supporting) the operation of Smart City solutions, as well as the self-assessed maturity levels in core IT infrastructure capabilities

## VALUE

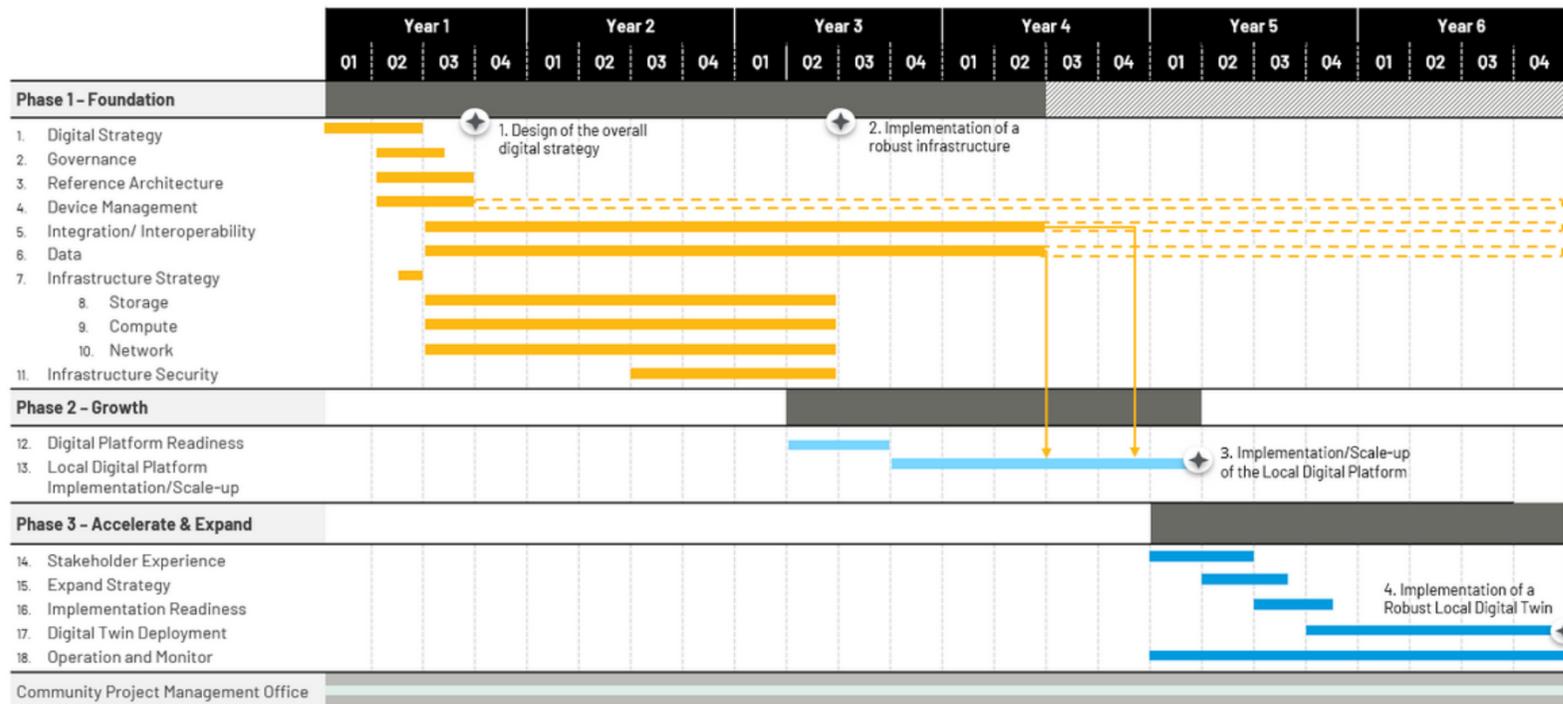


Tailored roadmap initiatives fundamental to the development of a Local Digital Platform and later a Local Digital Twin, according to the maturity of capabilities found at this stage.

# Digitalisation Roadmap

- Tailored reference digitalisation roadmap for each community
- Key enablers and capabilities for a Local Digital Platform (LDP) and later a Local Digital Twin (LDT)

## Overview of capabilities and enablers and correspondent reference timeline



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

## List of initiatives for each capability and/or enabler

### 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

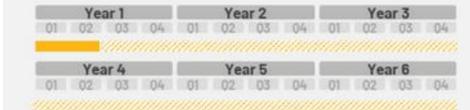
#### Device Installation

- 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

### Calendar Estimate



### Procurement Objects\*

- IoT devices
- IoT platform

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

### Interdependencies

Not applicable

# Procurement Support



## Identification of objects of procurement

Guidance to identify the objects of procurement needed to implement the digitalisation roadmap.



## Access to procurement templates and guidelines

Access to the procurement templates & guidelines that will be published in the Online Procurement Helpdesk for Smart Communities by February 2025.



## Dedicated procurement support through the Online Helpdesk

To help you understand your procurement needs based on the digitalization roadmap, navigate the procurement guidelines, and use the templates.

# Unique Added Value of Completing the Journey



## Digitalisation Roadmap

- Helps **identify gaps** in the strategy towards 2030 goals.
- Makes **decision-makers aware** of gaps, needs, and investment required.
- Alignment with **EU standards** and **compliance** with regulations.



## External Assistance

- Provides an **expert team** to work with communities on their strategy (City Guiding Agent)
- Accompanies them to **reassure the strategy, facilitating procurement.**
- Offers another point of view to **evaluate current gaps and investment priorities.**

# ONLINE PROCUREMENT HELPDESK: DEVELOPING YOUR DIGITALISATION ROADMAP

## THANK YOU! PALDIES!



**Express your interest!**

**ANY QUESTIONS?**

genoveva@serendipity.buzz  
anastasia@serendipity.buzz

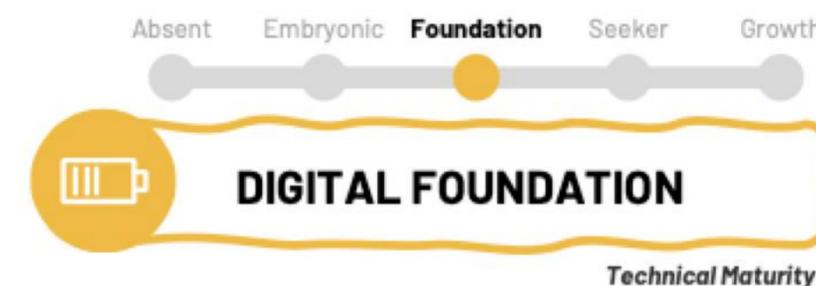
Advancing initial stages for the transformation of smart communities

# Digital Transformation Roadmap

Riga

**Laine Celma**, Deputy IT Director,  
Riga Digital Agency

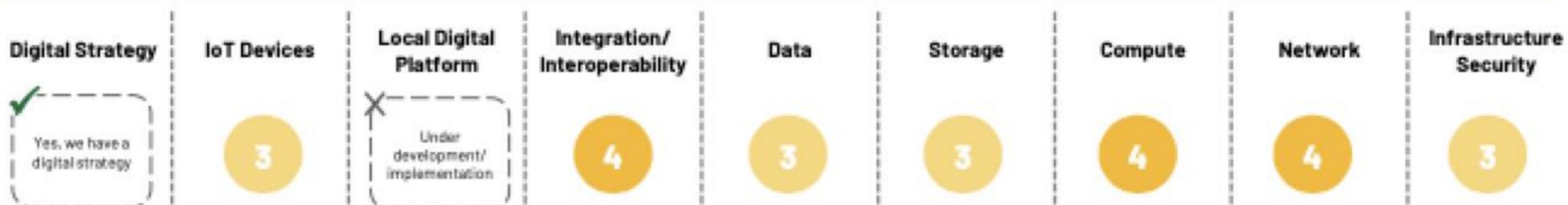
# Riga Assessment Scores



## Digital Maturity (LORDIMAS Assessment)



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



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

# Riga's involvement

- **Initial Self-Assessment (March/April 2024)**
- Riga completed its first digital maturity assessment with LORDIMAS six months ago. This initial step provided a baseline overview of Riga's digital capabilities and identified key areas for improvement.
- **Current Focus: Roadmap Development as Step 2**
- Based on the assessment, Riga is now moving forward with a structured **roadmap** aimed at **enhancing digital infrastructure**, improving service efficiency, and strengthening **cybersecurity**. This roadmap represents the second step in **Riga's digital transformation journey**.

# Why do we need it?

## **Future Value of LORDIMAS in Project Applications**

- The LORDIMAS tool not only tracks digital progress but also serves as a strategic advantage, adding bonus points to project applications by demonstrating a structured approach to digital maturity.

## **Annual Review Process**

- LORDIMAS will conduct annual reviews, assessing Riga's advancements and measuring progress in key areas. This consistent evaluation **allows Riga to continuously climb the digital maturity scale**, ensuring targeted and effective growth.

# Strategic priorities identified for Riga

- **Improved Cybersecurity Protocols:** Strengthening data protection and securing critical infrastructures.
- **Enhanced Smart Data Utilization:** Supporting data-driven decisions across municipal services.
- **Expansion of Digital Services:** Increasing public access and engagement with digital tools.



# EU DATA SPACES, OPEN DATA PLATFORMS AND LOCAL DIGITAL TWINS

# EU DATA SPACES, OPEN DATA PLATFORMS AND LOCAL DIGITAL TWINS

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

Speakers:

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Viedās administrācijas un reģionālās attīstības ministrija

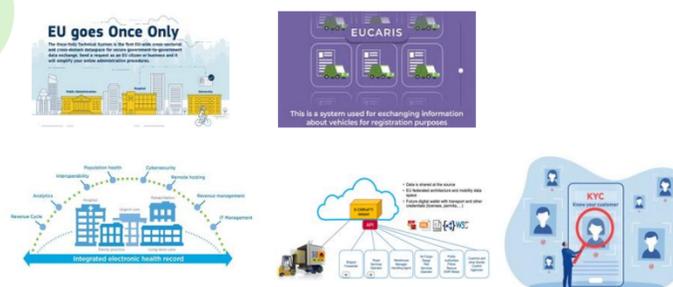
# DATU JOMAS EVOLŪCIJA

1



Datu apkopošana pamatdarbības ietvaros

2



Datos balstītu integrētu risinājumu izstrāde

3



Standartizētas un vienotas datu ekosistēmas izveide

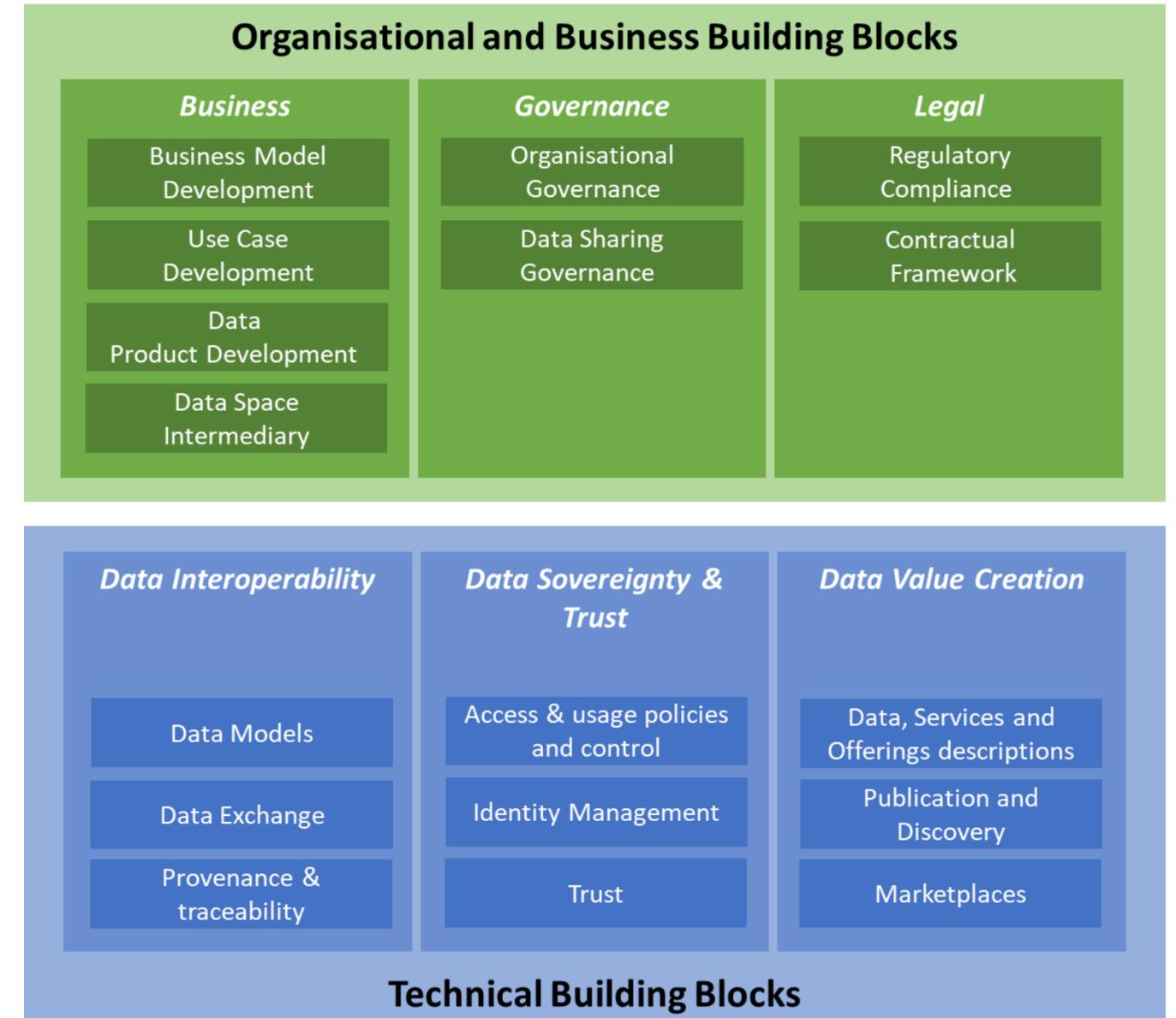
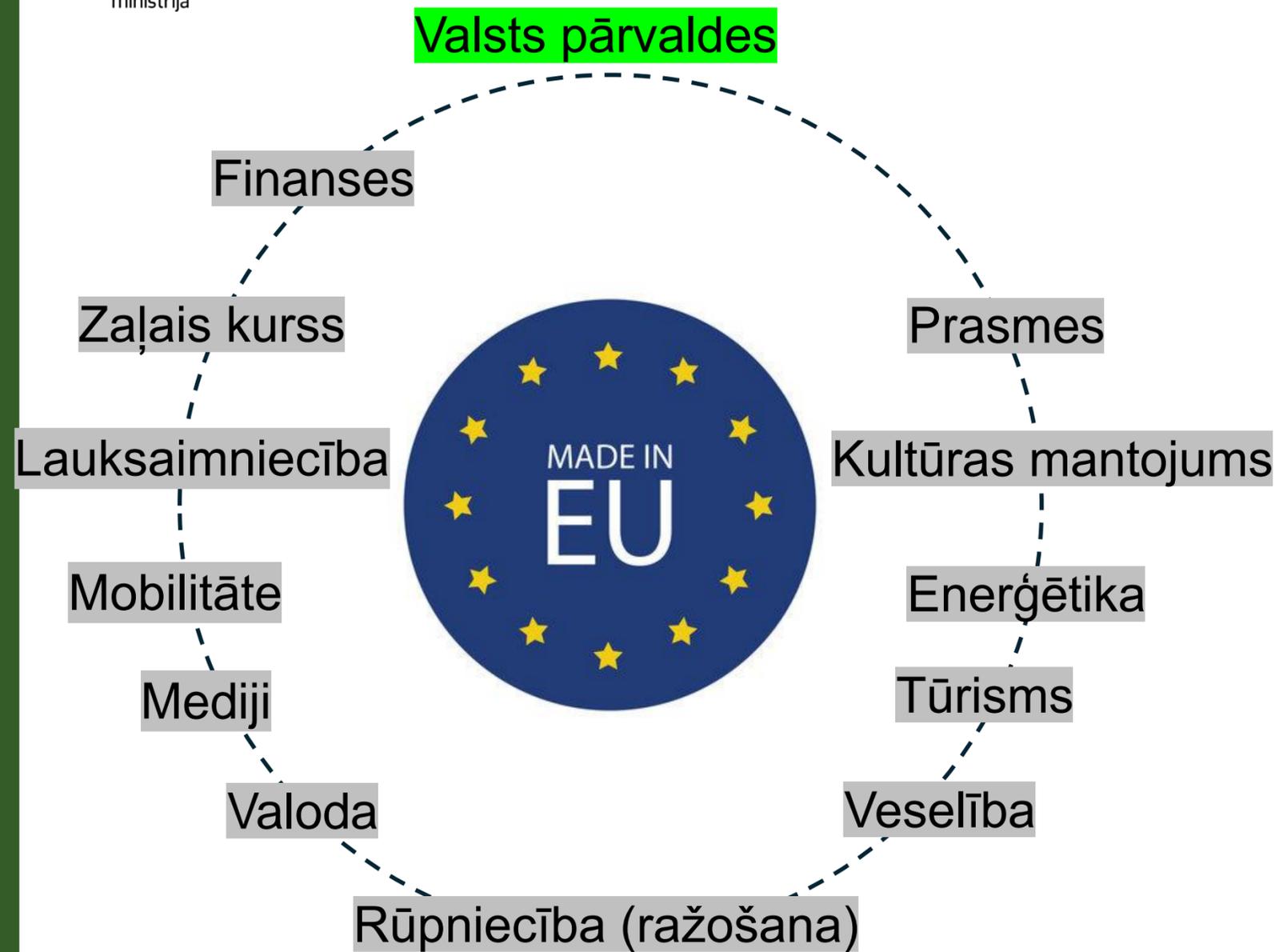
LOADING...





Viedās administrācijas un  
reģionālās attīstības  
ministrija

# ES vienotās datu telpas





Viedās administrācijas un  
reģionālās attīstības  
ministrija

# Galvenais ir biznesa mērķis nevis tehniskais izpildījums

## Rūpniecības un ražošanas datu telpa

**Mērķis:** Atbalstīt rūpniecības sektora digitālo transformāciju, **nodrošinot piekļuvi liela mēroga rūpniecības datiem**, uzlabojot darbības efektivitāti, produktu inovācijas un ilgtspēju.

## Zaļā kursa datu telpa

**Mērķis:** **Veicināt vides datu apmaiņu, lai atbalstītu Eiropas Zaļā kursa mērķus, tostarp samazinātu oglekļa emisijas**, atbalstītu bioloģisko daudzveidību un veicinātu ilgtspējību enerģētikā, lauksaimniecībā un citos sektoros.

## Veselības datu telpa

**Mērķis:** **Nodrošināt** drošu un standartizētu **piekļuvi veselības datiem** visā ES lai **uzlabotu veselības aprūpi, pētniecību un personalizētu medicīnu**, vienlaikus nodrošinot pacientu privātumu, ievērojot GDPR prasības.

## Valsts pārvaldes datu telpa

**Mērķis:** **Veicināt efektīvākus un pārredzamākus valsts pakalpojumus**, nodrošinot datu apmaiņu starp publiskajām institūcijām, pašvaldībām un ES līmenī, vienlaikus aizsargājot iedzīvotāju datu privātumu.





Viedās administrācijas un  
reģionālās attīstības  
ministrija

# Digitālās Eiropas programma 2021.-2027.gadam

## Calls for proposals

Calls for proposals are funding opportunities issued by the European Union institutions, agencies and bodies. These are direct financial contributions, known as grants, that are awarded to third-party beneficiaries (e.g., research organisations, public entities, non-governmental organisations, and private companies) to engage in activities that serve EU policies.

[More details](#)

### Filters

#### Quick search

2021 - 2027

Digital Europe Programme (DIGITAL)

Call

Submission status

All filters

2 item(s) found



Programme: Digital Europe Programme (DIGITAL)

#### Towards networked Local Digital Twins in the EU

DIGITAL-2024-CLOUD-DATA-AI-07-DIGITALTWIN | Call for proposal

Opening date: **04 July 2024** | Next deadline: **21 November 2024** | Single-stage

Programme: **Digital Europe Programme (DIGITAL)** | Type of action: **DIGITAL Grants for Financial Support**

#### Call for Pilots within the European data space for smart communities (submission round 2)

DS4SSCC-DEP | Cascade funding

Opening date: **01 September 2024** | Next deadline: **01 December 2024** | Single-stage

Programme: **Digital Europe Programme (DIGITAL)** | Type of action: -

Items per page: 50

Showing 1-2 of 2

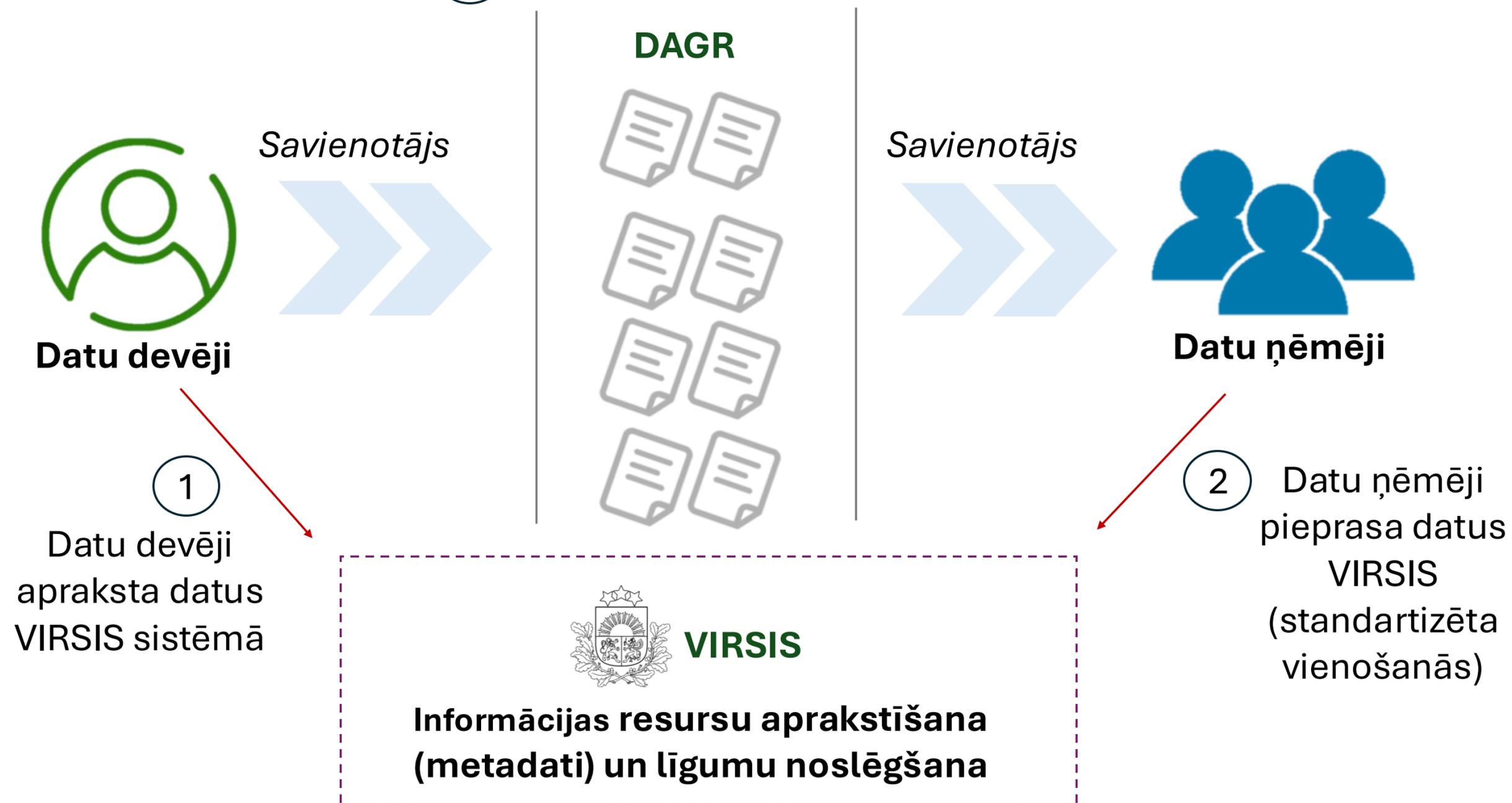
Share this page



Viedās administrācijas un  
reģionālās attīstības  
ministrija

# Datu apmaiņa valsts pārvaldē

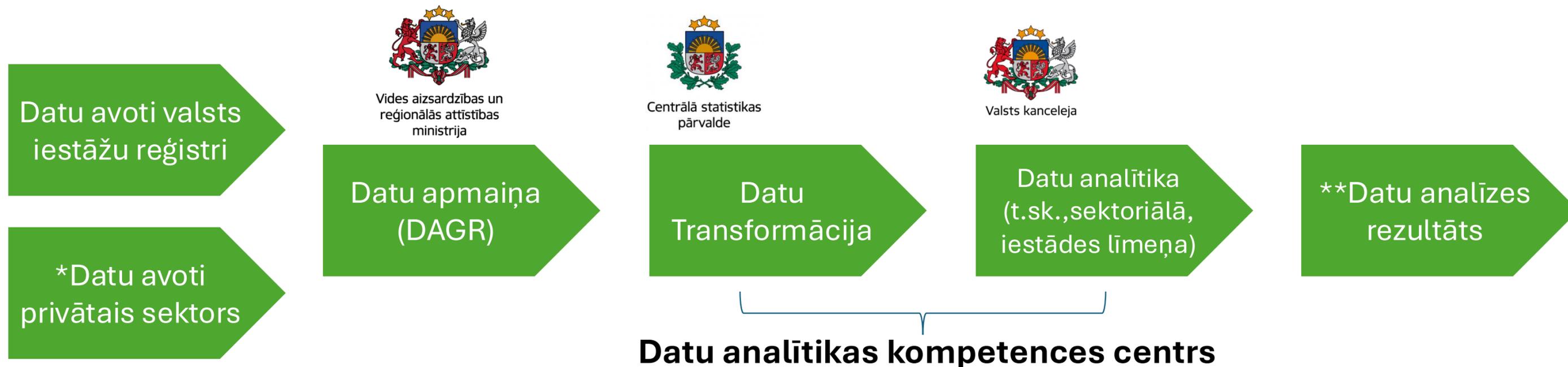
## 3 Datu apmaiņa DAGR





Viedās administrācijas un  
reģionālās attīstības  
ministrija

# Datu analītika



Uzdevumi kas izriet no DGA	Personalizēti analītikas produkti
Nodrošināt datu analīzei nepieciešamos datus	TBD
Nodrošināt datu anonimizāciju (metodisko atbalstu)	TBD
Nodrošināt droši apstrādes vidi, kas atbilst DGA prasībām	TBD



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reģionālās attīstības  
ministrija

## Turpmākie soļi



Līdz 31.12.2024.

---

- ★ TAP portālā uz saskaņošanu tiks publicēta «Datu pārvaldības un koplietošanas stratēģija 2025.-2029.gadam»
- ★ TAP portālā uz saskaņošanu tiks publicēts konceptuālais ziņojums «Par valsts pārvaldes datu analītikas kompetences centra» izveidi.

# EU DATA SPACES, OPEN DATA PLATFORMS AND LOCAL DIGITAL TWINS

Moderator:

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- **Edgars Indriksons**, Head of Data, Riga Digital Agency

# National Access Point (NAP) for mobility data



[transportdata.gov.lv](http://transportdata.gov.lv)



Satiksmes ministrija

**National Access Point (NAP)** of Intelligent Transportation System domain (ITS) is a node (f.i. web portal in Latvia), where mobility-related data are concentrated and published as EU-specified open datasets.

**NAPs** were mandatory set up to facilitate access, easy exchange and reuse of transport related data in Europe, e.g. to support the provision of EU-wide interoperable travel and traffic services to end users and next-gen mobility services (CCAM, MAAS).



# Legal framework for NAP

Basis for the creation of the NAP is the ITS (EU) Directive with a set of corresponding Delegated Regulations for certain type ITS service provision.

LV NAP's actual focuss

[ITS Directive 2010/40/EU](#)

[ITS Directive \(EU\) 2023/2661](#)

[Delegated Regulation \(EU\) 2017/1926 – EU-wide multimodal travel information services \(MMTIS\)](#)

[Delegated Regulation \(EU\) 2015/962 – EU-wide real-time traffic information services \(RTTI\)](#)

[Delegated Regulation \(EU\) 2022/670 – EU-wide real-time traffic information services \(RTTI\)](#)

[Delegated Regulation \(EU\) No 886/2013 – Safety-related \(minimum universal\) traffic information \(SRTI\)](#)

[Delegated Regulation \(EU\) No 885/2013 – Safe and secure parking places for trucks \(SSTP\)](#)

[Delegated Regulation \(EU\) 2024/490 EU-wide multimodal travel information services \(MMTIS\)](#)

# ITS sector before NAP

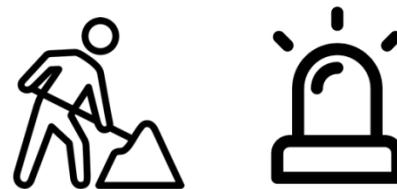
## Mobility services



## Data holders



## Society



## Emergency and road services

- Incompatible data formats, standards and services
- Fragmented data sources
- Different levels of data quality
- Lack of unified principles for transport data exchange and reuse
- Parallel and duplicate operations

# ITS sector with NAP

## Mobility services



DATEX II



Society



Future mobility

## Data holders



Emergency and road services

- Centralized and unified transport and mobility data exchange at the EU level (unified quality, data standards, exchange protocols)
- Comprehensive support for today's and future mobility services
- Harmonization of NAPs at the EU level, as cross-domain framework, services, standards, metadata and development strategy

# Data flow through NAP

Data provider

Data clients



# NAP platform

The main functions:

- ✓ Exchange (submission and subscription) of open transport and mobility data
- ✓ Viewing and searching data in the data catalog, interactive map
- ✓ Automated submission and subscription of data and data change flow using a software interface (API), MQTT protocol

Website address: [transportdata.gov.lv](https://transportdata.gov.lv)

The screenshot shows the homepage of the 'Transport. Mobility' platform. At the top, there are logos for 'TRANSPORT MOBILITY NATIONAL ACCESS POINT OF LATVIA', 'LATVIAN STATE ROADS', and the 'Ministry of Transport Republic of Latvia'. There are also language and settings dropdowns, and a 'Sign In' button. Below the header is a navigation bar with links for 'DATA', 'BECOME A PARTNER!', 'ABOUT THE PLATFORM', and 'VIEW MAP'. A search bar is located on the right side of the navigation bar. The main content area features a large banner with the text 'Welcome to the "Transport. Mobility"!'. Below the banner, there are three statistics cards: '157 Devices giving realtime traffic data', '17011 Data instances stored in the platform', and '37 Data sets with API'. There is also a link to an 'Interactive map'.

## Data Sets

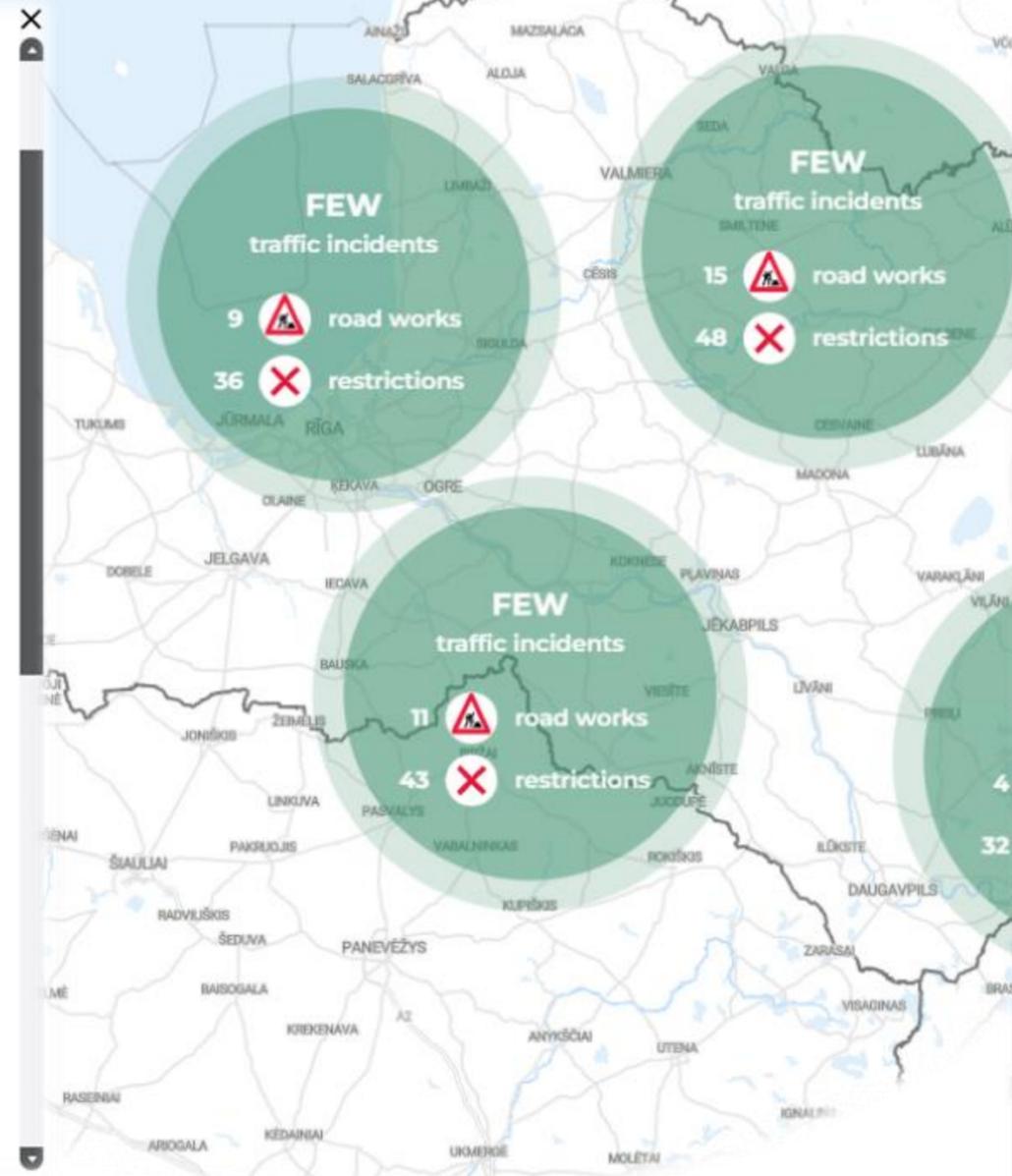
The screenshot shows three data set cards under the 'Data Sets' section. Each card has a title, a 'Data change stream' indicator (a green dot), and a 'Last updated' timestamp.

Data Set	Data change stream	Last updated
Traffic volume, speed	●	29.10.2024 12:19
Animals, people, obstacles, debris on the road	●	29.10.2024 12:01
Road closures	●	29.10.2024 12:01

# NAP interactive map

**LEGEND**

- Closed roads**
  - Road closed (section)
  - Road closed
- Road construction works**
  - Construction works (section)
  - Construction works
- Repair of railway crossings**
  - Repair (section)
  - Repair
- Changing information road signs**
  - VMS VMS device
- Traffic counting points**
  - SUP device
- Cameras and weather stations**
  - CMS device
- Electric charging**
  - Electric charging
- Oil gas**
  - Oil gas
- CNG**
  - CNG
- Parking lots under the control of LVC**
  - Parking lot / parking space
- Specialized truck parking lots**
  - Parking lot / parking space



Search place or coordinates... **Layers**

**DATA LAYERS** [Search layers](#)

- Current traffic events**
  - Static obstacles
  - Moving objects
  - Traffic accidents
  - Temporary road works
  - Traffic intensity
  - Other events
- Driving conditions warnings**
  - Slippery road
  - Weather influence
  - Limited visibility
  - Bad road conditions
- Planned events**
  - Closed roads
  - Road construction works
  - Road maintenance works
  - Repair of railway crossings
  - Mass event
  - Other events
- Cameras and devices**
- Charging and filling points**
- Parking lots**
- Weight and dimensions restrictions**
- Areas of responsibility**
- Road network data**
  - Average speed control sections
  - Black spot
  - Border crossing points

# The nearest NAP-related plans

- LV Government Rules regarding data provision to NAP will come in force soon, so new data providers (primarily from the public sector) will be requested to join NAP on their own
- Data provision from municipalities and operators of electric cars' charging points
- MMTIS provision from the Directorate of road transport
- Up to 4 different data provision schemes to NAP for the prompt choice in every situation



**We invite all the stakeholders for further cooperation!**



# EU DATA SPACES, OPEN DATA PLATFORMS AND LOCAL DIGITAL TWINS

Moderator:

**Viesturs Celmins**, Managing Director VEFRESH

Speakers:

- **Janis Krakops**, Head of Data Management Unit, VARAM
- **Viktorija Tabakurska**, Ministry of Transport, State Road Infrastructure
- **Diāna Tumene**, Latvian State Roads, National Traffic Information Centre
- **Boriss Jelisejevs**, Latvian State Roads, National Traffic Information Centre
- **Edgars Indriksons**, Head of Data, Riga Digital Agency



# Securely share data across borders

## European data strategy

- creating common European data spaces in key areas like health, public administration, energy, and industry
- Emphasis on data sovereignty, trust and security
- Strategic use for public benefit

## Open data platforms in action

- GEO Riga
- Riga.API portal
- Public data - accessible for developers, business and citizens
- Innovation and better governance

## Minimal Interoperability (MIM's)

- A crucial element in the success of digital twins and data spaces
- Riga has already started adopting MIM's > better data exchange and integration across municipal services
- OASC has a largely supportive role, focusing on quality management

# Challenges

**DATA  
SECURITY**

**PRIVACY  
CONCERNS**

**STANDARDIZATION  
ISSUES**

**TECHNOLOGICAL  
CHALLENGES**



# & Opportunities

**ENERGY  
EFFICIENCY**

**TRAFFIC  
MANAGEMENT**

**POLLUTION  
CONTROL**

**DECISION  
MAKING**



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**LIELS  
PALDIES!**

# 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.





# SUPPORTING ECOSYSTEMS: LIVING-IN.EU, EDIC & VEFRESH

# SUPPORTING ECOSYSTEMS

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Coordinator, Eurocities
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municipality
- **Edgars Indriksons**, Head of Data, Riga Digital Agency

# What is Living-in.EU?

Living-in.EU is an **EU initiative** for local and regional leaders who recognize the **potential of technology** to enhance the quality of life in their towns, cities, or regions. The initiative fosters European **cooperation** and upholds European values, enabling cities and regions to **share smart city strategies**, and **re-use solutions** to avoid working in isolation.



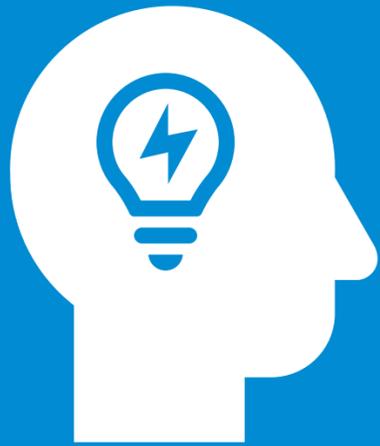


Declaración sobre aunar esfuerzos para impulsar una transformación digital sostenible en las ciudades y comunidades de la UE.

**LIVING-IN.EU**

# Why join Living-in.EU?

Know



Stay connected and informed about the latest advancements in data spaces, interoperability, local digital twins, and more.

Share



Collaborate, share knowledge, and access a wealth of resources and solutions designed to accelerate digital transformation.

Use



Access tools and services such as the support services and the helpdesk we are presenting today, the technical standards, assessment tools, procurement templates, etc.

# How to join?

Step 1



Mayor, deputy mayor or responsible city councillor needs to sign the Join, boost, sustain declaration

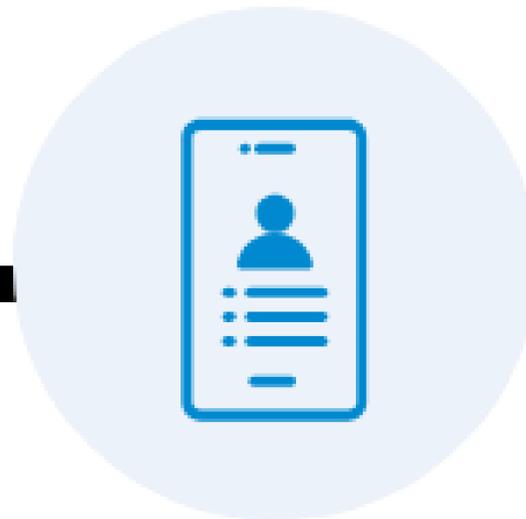
Step 2



Upload the signed declaration on <https://living-in.eu/user/register/signatory>



Step 3



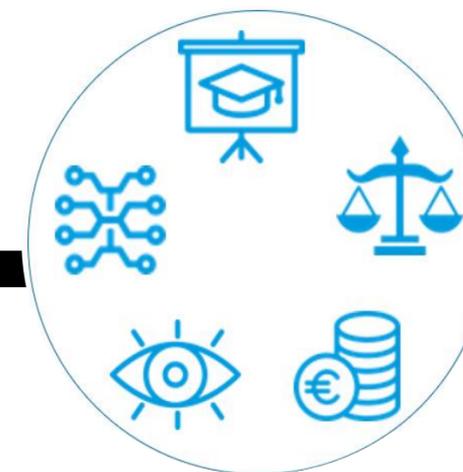
Anyone from the city administration can register as a member on <https://living-in.eu/user/register/member>

Step 4



Start using the resources and join the meetings and training sessions

Step 5



Join the working groups on <https://living-in.eu/groups/commitments>

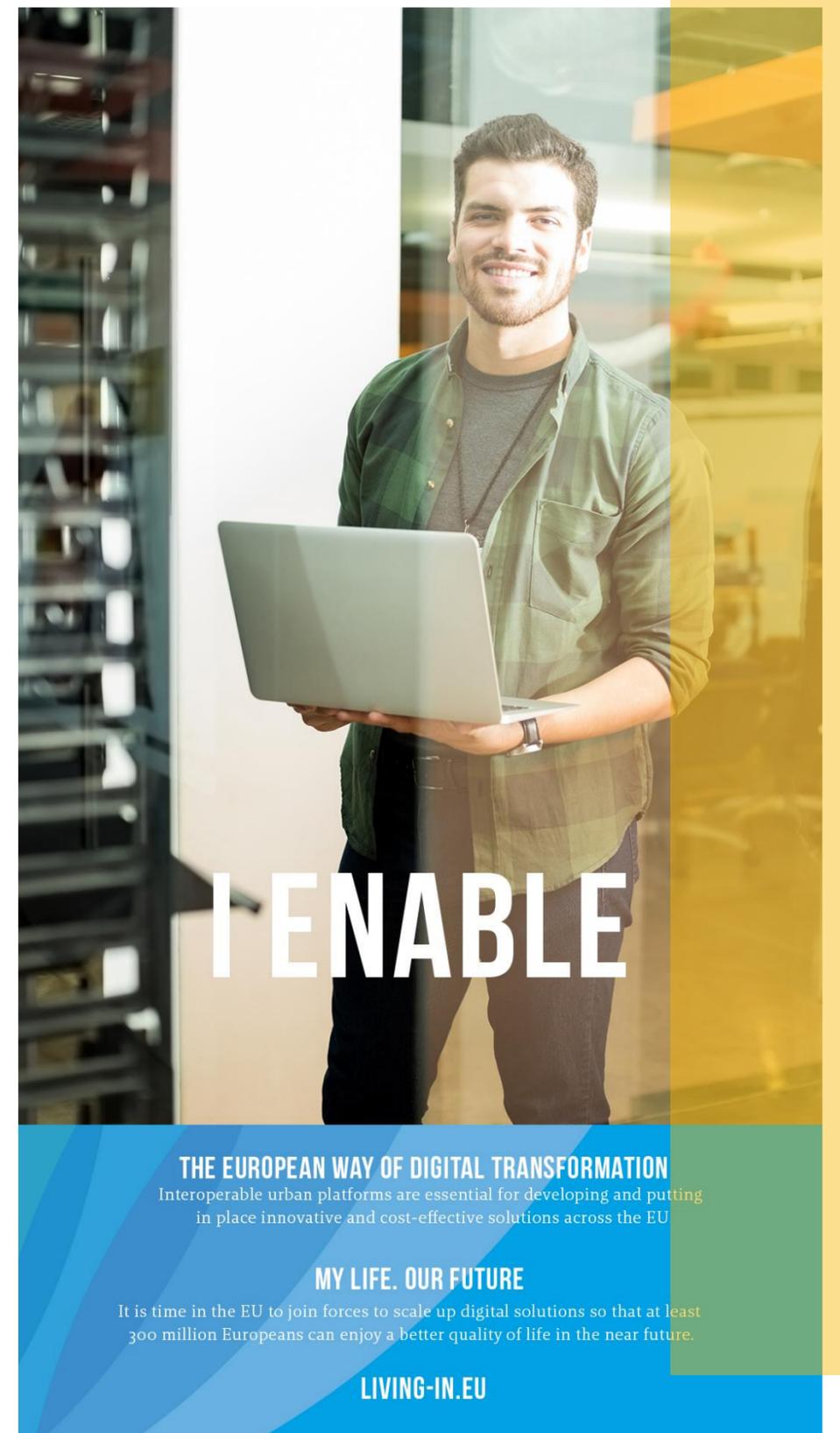
# Invitation to join Living-in.EU

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!

VEFRESH can facilitate your participation and support you in using the resources offered!

VEFRESH



**5G TECHRITORY**



Supporting Ecosystems

# Digital Kuldiga Innovations

Living-in.EU Community

by Mg. soec. **Artis Gustovskis**

*Kuldiga Digital Innovation Hub*

*artis@kuldiga.lv*

**LIVING-IN.EU**

**JOIN,  
BOOST,  
SUSTAIN**



# Kuldiga OldTown UNESCO World Heritage

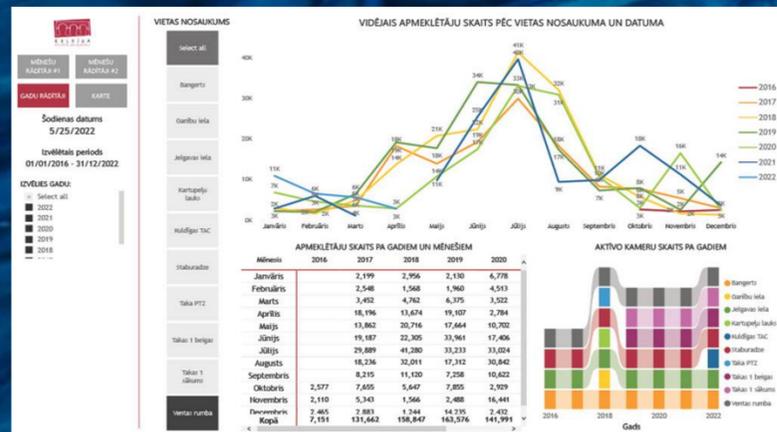
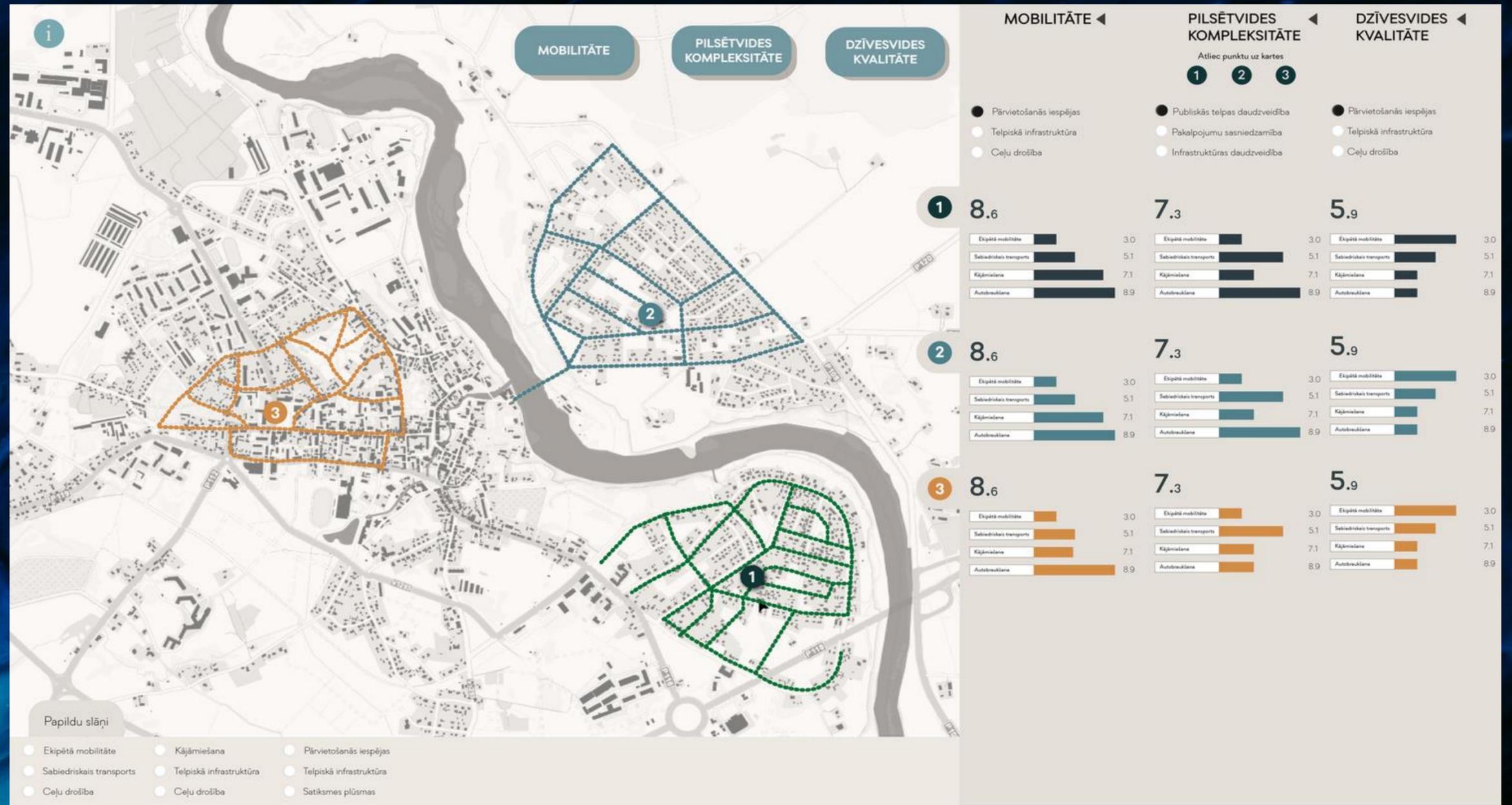
Since 2023  
Kuldiga Old  
Town is  
included in  
UNESCO  
World  
Heritage  
List



# Development of a Big-Data-based Mobility planning Tool in Kuldīga

Project by  
**Vividly Urban**  
 Jaņa Seta  
 Kuldīga DIH

Video cameras and sensors combined with machine learning.  
 Video analytics provides the widest and most comprehensive identification and classification of movement participants, providing the opportunity to analyze, for example, movement flows, identification of problem areas of congestion, occupancy of parking lots, etc.



<https://www.vividlyurban.eu/blogs/projekta-datos-bzta-mobilittes-plnoanas-rka-izstrde-noslgums>

# Co-creation of the 1st EU-China Virtual Travel Fair



<https://www.youtube.com/watch?v=3fs8KQgEE94&t=2s>

# EU-TECH-GIRLS Project

It's all about AI

Kuldiga(Latvia) –  
Pedreguer (Spain)



# VIRTUAL REALITY

for Education Network

**MINOX** 2022-2023 Innovations



**MINOX 2022**

**MINOX 2022 KURZEME**

**IZGUDROJUMI UN INOVĀCIJAS  
10. SEPTEMBRĪ**

Kuldīgas Digitālo inovāciju centrā

ADATU FABRIKĀ

Kalpaka ielā 4

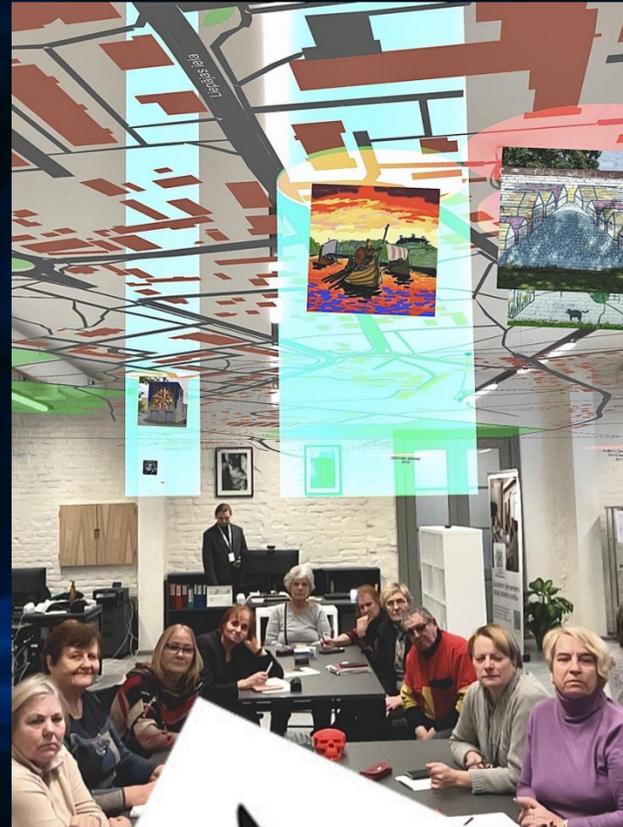
**PIESAKI SAVU IDEJU - EJ.UZ/MINOXKULDIGA**

**UZDROŠINIES RADĪT UN RĀDĪT! NĀC UN PIEDALIES!**

Organizē



# Augmented Reality & METAVERSE solutions



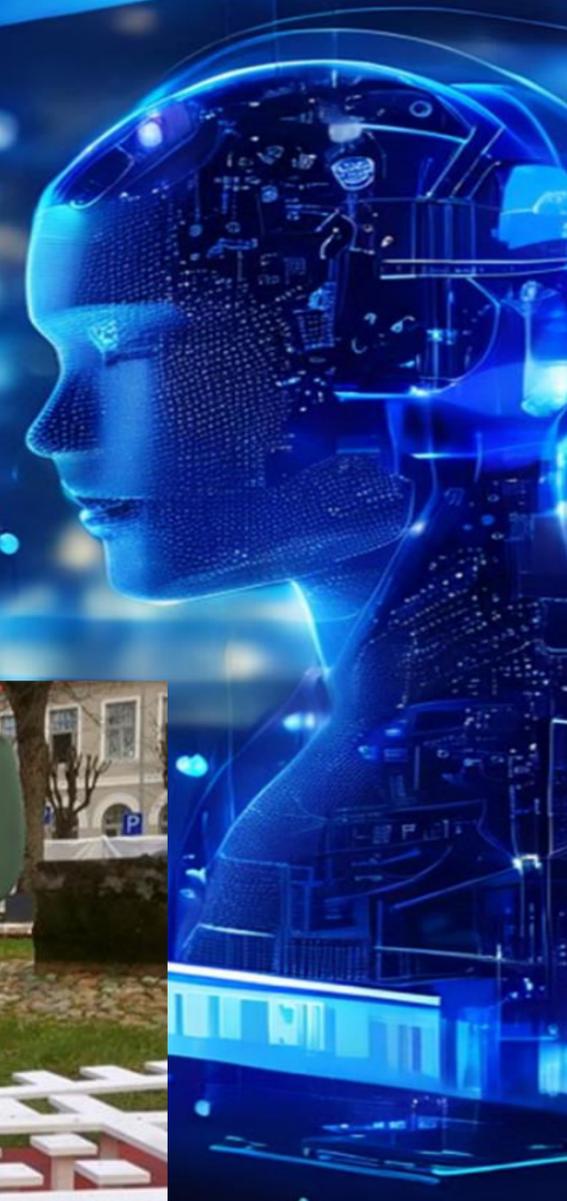
# Augmented Reality, AI & METAVERSE COOLdiga ART FEST

solutions

# COOL DIGA ART FEST

<https://artplus.app/>

# ART+



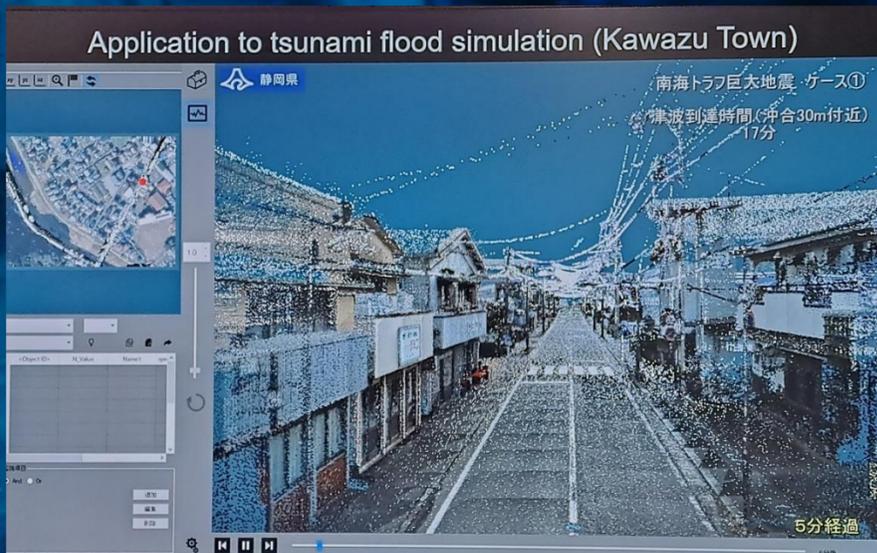
Anija Aizkalne  
RĀMJI

3D objekts uz I.Zeberiņa Kuldīgas pamatskolas ēkas sienas  
Jelgavas ielā 62, Kuldīga



<https://www.youtube.com/watch?v=J5udVWCd8374&t=1s>

# Kuldiga DX-Project with TwinTown **City of Fuji, Japan**

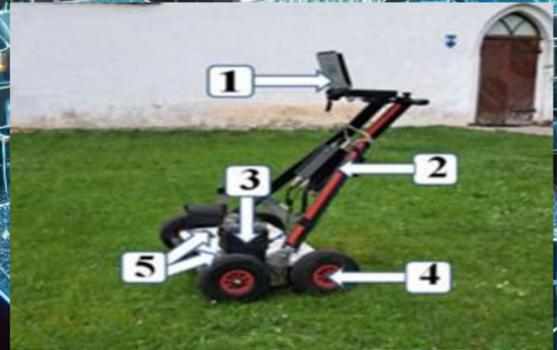
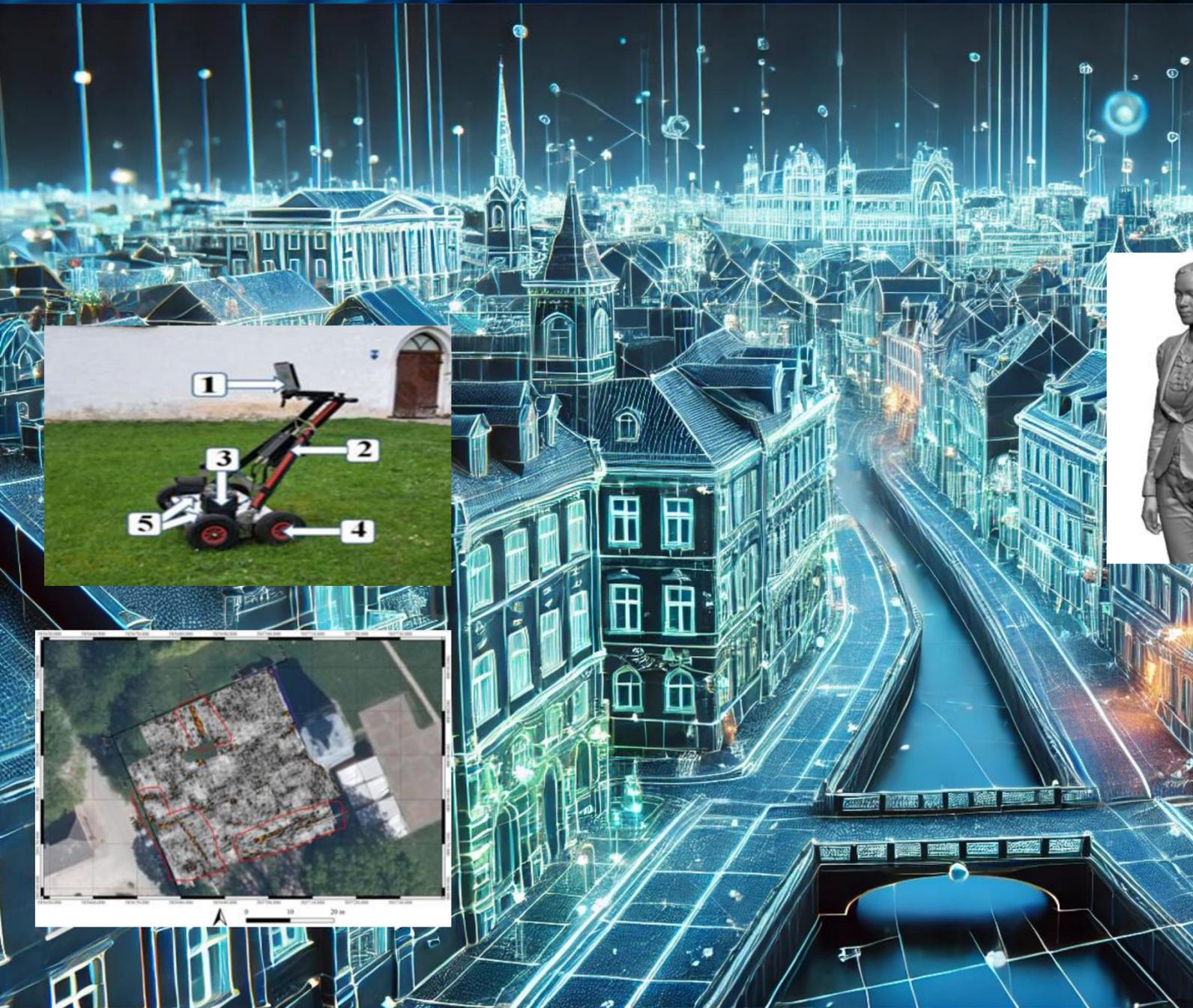
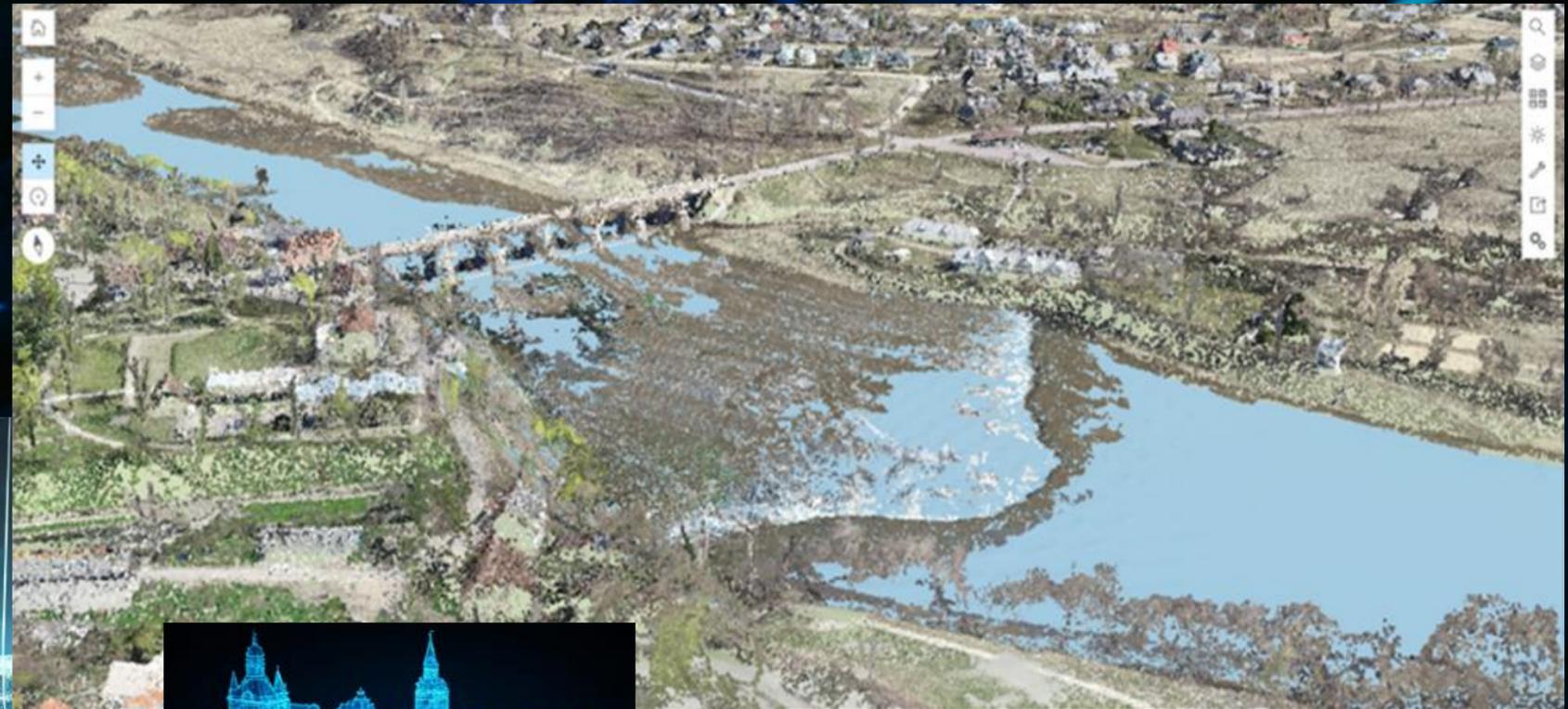


High density data is acquired over a large area to create a **VIRTUAL SHIZUOKA**

	Laser Profiler (LP)	Airborne Laser Bathymetry (ALB)	Mobile Mapping System (MMS)
Measurement method			
Items measured	Ground surface, trees, buildings, etc.	Coast and underwater topography	Roads and surrounding natural features
Measurement density	16 points per square meter or more	1 point per square meter or more	400 points per square meter or more



# Creation of Kuldiga virtual space using **3D point cloud data** as the first step into Metaverse



<https://3dscan.lv>

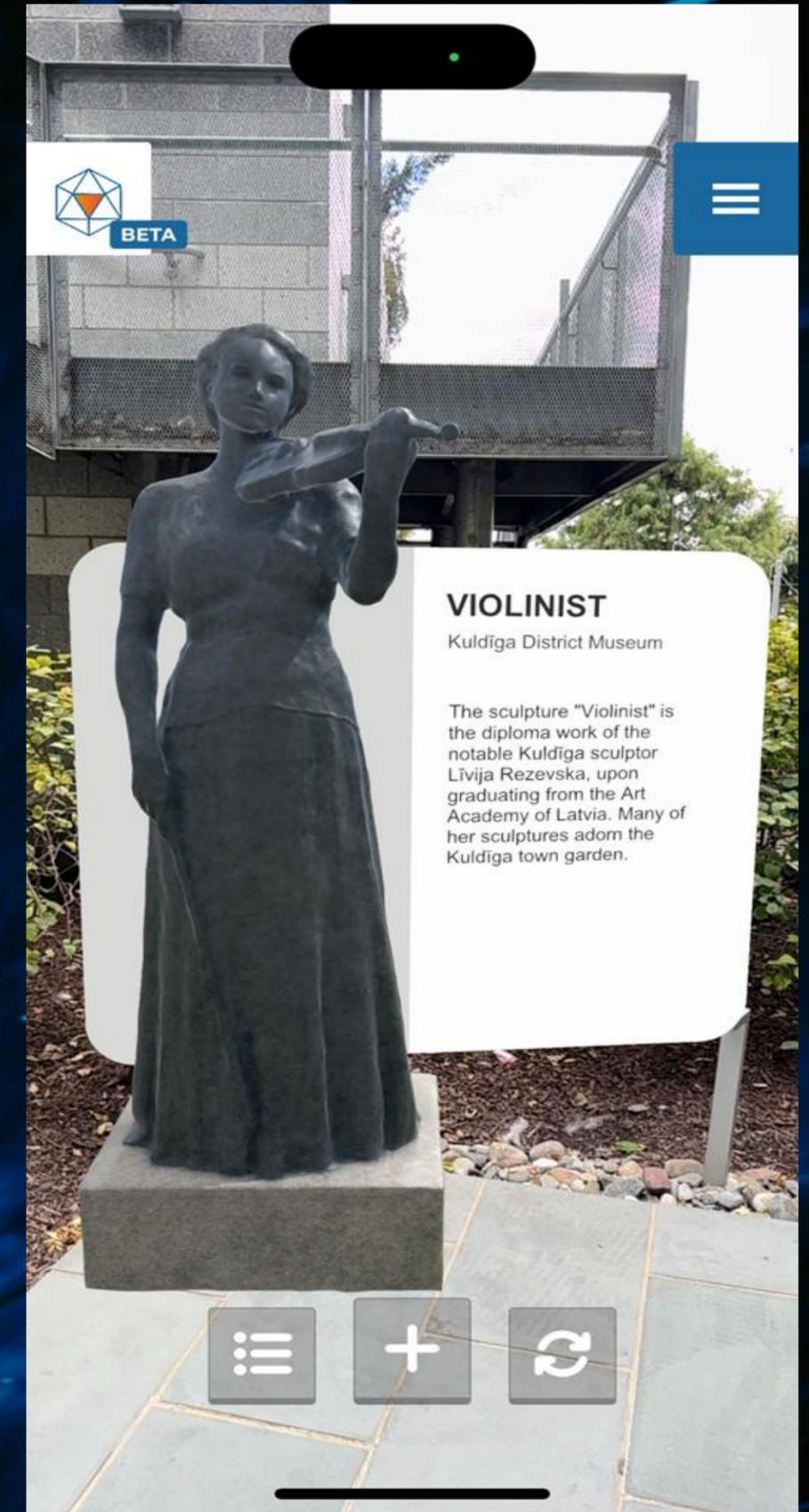


# AR & XR "twins" as the first step of Metaverse

Kuldīga Digital Innovation Hub together with  
**XR MASTERS** created 3D virtual replicas  
of the **UNESCO heritage**



<https://xr-masters.com/>

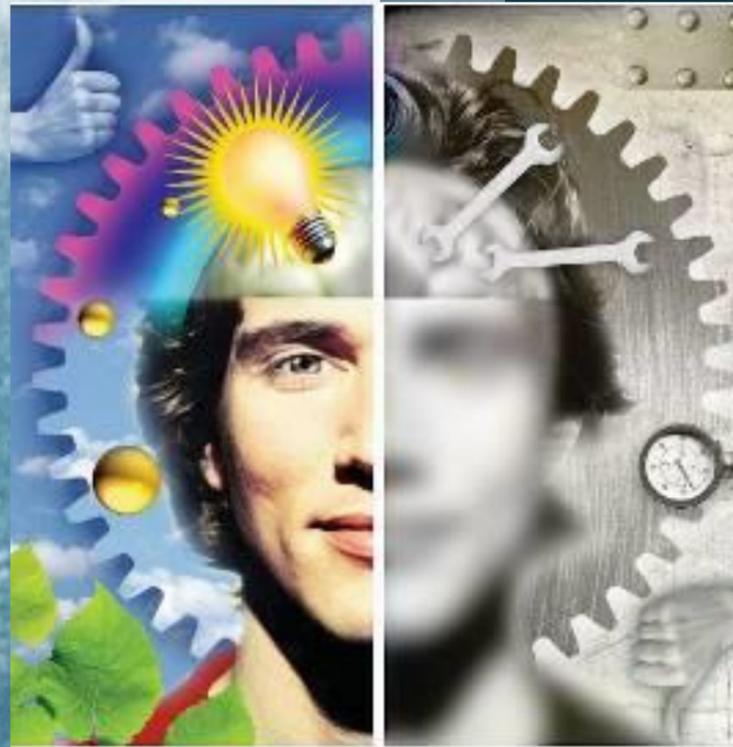




**ART+**

*Be Unique, Innovative and Creative!*

# Thank you for Attention!



**Mg. soec. Artis Gustovskis**

*Kuldiga Digital Innovation Hub*

*EU Smart Tourism Destinations*

[Artis@kuldiga.lv](mailto:Artis@kuldiga.lv)



**LIVING-IN-EU**

# LIVING-IN.EU SIGNATORY CEREMONY



**KULDIGA Municipality**  
**Represented by Artis Gustovskis**



Funded by  
the European Union



# LIVING-IN.EU

Living life the European way.  
Where digitalization makes your life easier  
and brings us into balance with nature.

Join us in creating our future.



**LIVING-IN.EU** | GO-LI.EU



# SUPPORTING ECOSYSTEMS

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municipality
- **Arnis Gulbis**, Director of Riga City Council

# Supporting ecosystems

from a governance and city perspective



**Arnis Gulbis**, Director of  
Riga City Council



**Riga Digital  
Agency becomes  
the official  
coordinator for  
EDIC's Local  
Digital Twins &  
CitiVERSE  
initiative in Latvia**





# Riga's role in EDIC

## Interconnected digital twins across EU cities

- Enabling data-driven urban management and problem-solving
- Supported by Latvia's Ministry of Environmental protection and IKT development (VARAM)
- Unify local digital twins, creating EU-wide digital twin to address challenges

## Challenges to solve

- Traffic congestion
- Air quality
- Decarbonization
- Data integration across systems
- Public engagement and awareness

## Benefits

- Access to best practices and frameworks
- Support from European networks to standardize and integrate digital solutions across sectors
- Increased funding opportunities
- Enhanced collaboration and knowledge sharing

# EDIC – future plans

## Why EDIC matters for Riga

### **Enhanced Urban Management**

Digital twins will optimize city planning and resource management through real-time data and AI insights.

### **Broader Digital Transformation**

Leveraging data, AI, and augmented reality for efficient governance across sectors like education, healthcare, and transportation.

## Planned activities

### **Collaboration with Academic, Public, and Private Sectors**

Engaging stakeholders to develop real-time simulation models for sustainable city development.

### **Starting Mid-2024**

Practical implementation phase, building on Riga's existing initiatives and creating a repeatable model for other Latvian municipalities.



# FUNDING OPPORTUNITIES

# EU's 2021-2027 long-term budget

## Multiannual Financial Framework (MFF)

The EU's 7-year budget

€1.211 trillion



€806.9 billion

**NextGenerationEU**  
COVID-19 recovery package

**Recovery and Resilience Facility**  
€723.8 billion

€338.0 billion grants

€385.8 billion loans

**NextGenerationEU contribution to other programmes**  
EUR 83.1 billion

Note: All amounts are in current prices.

# EU Digital Funding Opportunities

Each programme contributes uniquely to the digital transformation of public administrations, supporting EU objectives of sustainable growth, competitiveness, and cohesion.



**Digital Europe Programme**  
(DEP) supports the development of digital infrastructure/skills, focusing on public admin efficiency + accessibility.



**HORIZON EUROPE**

**Horizon Europe** funds research and innovation projects to advance digital technologies and public services.



**Interreg** promotes regional cooperation to enhance digital connectivity and innovation in public services.

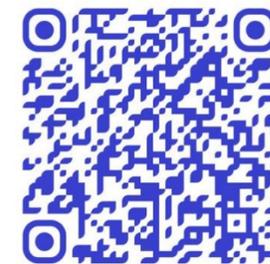


**Technical Support Instrument** (TSI) offers tailored technical support for designing/ implementing digital reforms in public admin.

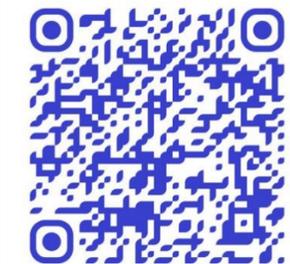


**Connecting Europe Facility** (CEF) improves digital networks and infrastructure, enhancing public administration services and connectivity.

The European Union (EU) supports the digital transformation of public administrations through various funding programmes. Here's an overview of how the funding works, who funds what, and who the stakeholders are for key programmes:



**More info:**



# Digital Europe



- **Funding Source:** The DEP is funded by the EU budget, with €7.6 billion allocated for 2021-2027.
- **Stakeholders:** Public administrations, industry, and research communities involved in digital transformation.
- **Objectives:** DEP aims to strengthen Europe's digital capabilities by funding projects that develop digital infrastructure, enhance cybersecurity, and promote advanced digital skills. It supports public administrations in deploying AI, high-performance computing, and digital public services to improve efficiency and accessibility

# Horizon Europe

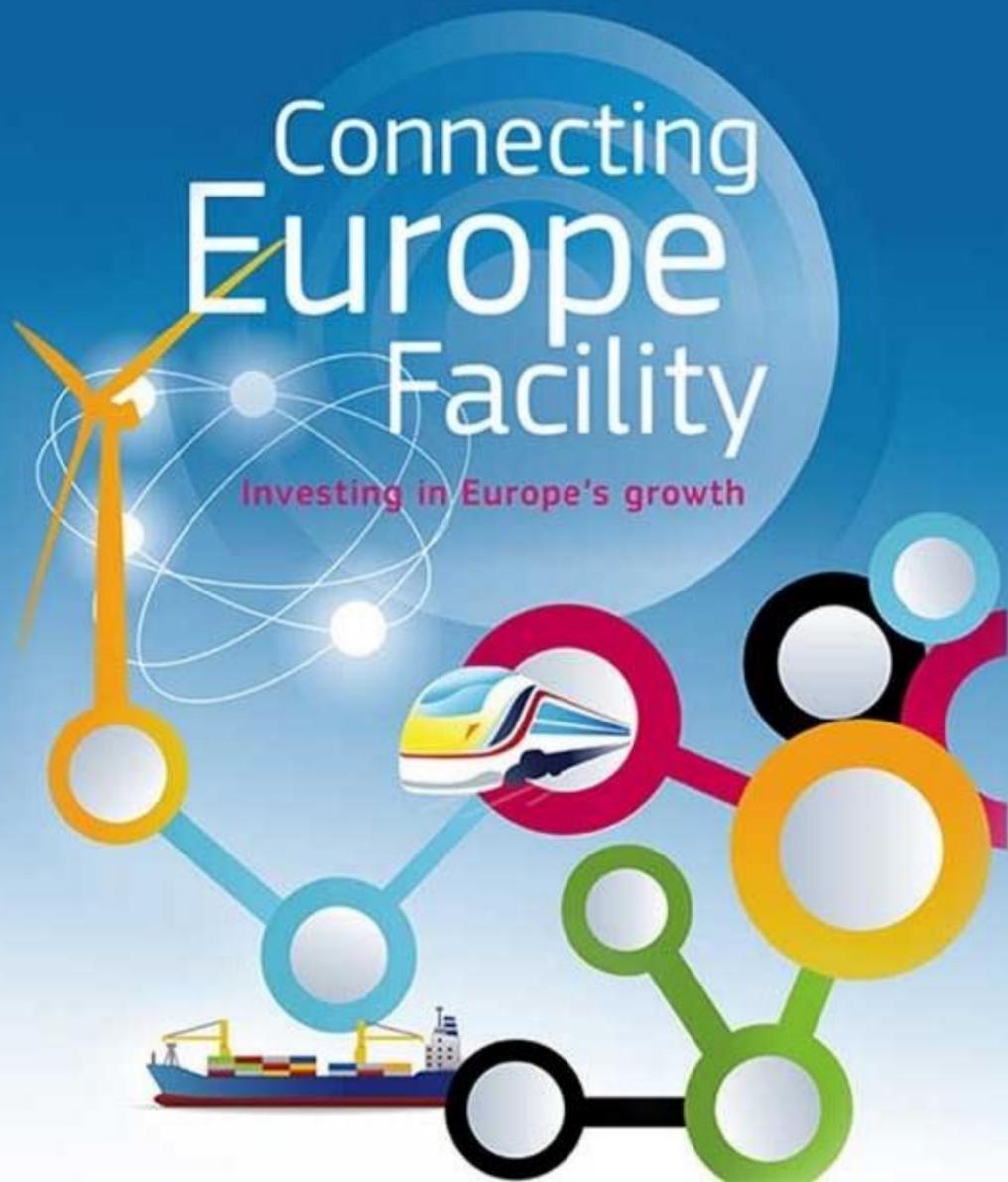


## Horizon Europe

- **Funding Source:** Horizon Europe is the EU's main funding programme for research and innovation, with over €95 billion for 2021-2027. Overall it is expected that 35% will support digital transformation.
- **Stakeholders:** Researchers, universities, research organizations, SMEs, public authorities, and private sector entities.
- **Objectives:** HE has a dedicated budget for enabling technologies, such as artificial intelligence and robotics, next generation Internet, high performance computing, big data, key digital technologies, 6G.

# Connecting Europe Facility (CEF)

- **Funding Source:** CEF is funded by the EU budget, with €33.7 billion for 2021-2027.
- **Stakeholders:** Public authorities, infrastructure operators, and private entities in the transport, energy, and digital sectors.
- **Objectives:** CEF aims to enhance EU connectivity and infrastructure by funding projects that develop and modernize digital networks. It supports public administrations in deploying high-speed broadband, digital public services, and secure digital infrastructures to improve administrative efficiency and citizen engagement



# Interreg

Interreg  
Europe



Co-funded by  
the European Union

Sharing solutions

for better

regional policies



- **Funding Source:** Interreg is financed through the European Regional Development Fund (ERDF) and other EU instruments.
- **Stakeholders:** Regional and local authorities, public bodies, NGOs, and businesses.
- **Objectives:** Interreg promotes cross-border, transnational, and interregional cooperation. It funds projects that enhance digital connectivity and innovation in public administrations, facilitating collaboration and knowledge sharing across regions to address common challenges and improve public service delivery.

# Technical Support Instrument (TSI)



- **Funding Source:** TSI is funded through the EU budget under DG REFORM, with a focus on supporting structural reforms.
- **Stakeholders:** National and regional authorities of EU Member States, experts from Member States' administrations, international organisations, private firms, and consultants.
- **Objectives:** TSI provides tailored technical expertise to help Member States design and implement digital reforms. It supports projects that enhance digital governance, modernise public administration, and improve public service delivery through the adoption of digital technologies.

# InvestEU

The logo for InvestEU features the word "INVEST" in a bold, dark green, sans-serif font. Below it, the letters "EU" are rendered in a large, bold, lime green font. The "EU" letters are partially overlapped by the "INVEST" text, creating a layered effect.

- **Funding Source:** InvestEU supports sustainable investments by leveraging both private and public funds. It aims to mobilize over €372 billion in investments through an EU budgetary guarantee.
- **Stakeholders:** National, regional and local governments. Public agencies. Companies and non-profit organisations.
- **Objectives:** InvestEU recognizes the importance of digitalization for Europe's competitiveness and prosperity. At least 10% of the program's resources will be directed toward digital objectives. This aligns with the European Green Deal and emphasizes the transition to a digital economy.

# Upcoming Funding Opportunities

TOPIC OPPORTUNITY	DATES	AVAILABLE FUNDING
HORIZON: Rethinking Urban Spaces Towards Climate Neutrality	<b>Open 17.9.24   Close 11.2.25</b>	45 MEuro funding – Projects must include pilot demonstrations in at least <b>3 cities</b> , including both urban and suburban areas.
HORIZON: Zero-Pollution Cities	<b>Open 17.9.24   Close 11.2.25</b>	20 MEuro funding - Projects must include pilot demonstrations in at least 2 cities
HORIZON: Mobility Management Plans and Behavioral Change	<b>Open 17.9.24   Close 11.2.25</b>	5 MEuro funding - Co design activities with stakeholders and citizens
HORIZON: Integrated Peri-Urban Areas in the Transition Towards Climate Neutrality	<b>Open 17.9.24   Close 11.2.25</b>	28 MEuro funding - Pilot demonstrations in at least 3 peri-urban areas.
Cascade funding: <a href="#">European data space for smart communities</a>	<b>Open 1.06.24   Close 28.02.25</b>	Three Open Calls during the period. It funds pilot projects up to 3M € with 50% co-funding to advance the development and implementation of data spaces.
Cascade funding: Other funding opportunities	<b>Several dates</b>	Citcom.AI, Communicity, etc. Funding available for pilots to leverage AI and other emerging technologies in addressing the needs of cities and communities

The **EU funding calls** provide a significant opportunity to transform **urban spaces** towards **climate neutrality**. These initiatives not only support technological and policy innovation but also promote collaboration among diverse stakeholders to achieve lasting environmental impacts.



# Q&A



# CLOSING

# 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  
Q1 2025

**PLAN**  
Online Training 2  
Q1 2025

**EMPOWER**  
Online Training 3  
Q1 2025

# We Appreciate Your Feedback



[Your feedback](#)



# INCREASING DIGITALISATION AWARENESS & READINESS OF LATVIAN COMMUNITIES

in collaboration with

VEFRESH



# LIELS PALDIES!