# ELABORATOR

## General Presentation

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# Project Facts



- **Call:** Research and Innovation actions for support the implementation of the Climate-neutral and Smart Cities Mission (HORIZON-MISS-2022-CIT-01)

- **Topic**: "Designing inclusive, safe, affordable and sustainable urban mobility" (HORIZON-MISS-2022-CIT-01-01)

- **Project Name** : THE EUROPEAN LIVING LAB ON DESIGNING SUSTAINABLE URBAN MOBILITY TOWARDS CLIMATE NEUTRAL CITIES

- **Acronym: ELABORATOR**

- **Type of action**: Innovation Action (IA)

- **EU Funding**: € 11 347 664.00

- **Total Budget**: € 12 387 260.00

- **Duration**: June 2023 –November 2026 (42 M)

- **12 Living Labs**

- **Website**: www.elaborator-project.eu

- **Social Media**:
  - **ELABORATOR Project**
  - @ELABORATOR_EU

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# Project Facts



- **Project Coordinator**: Dr Angelos Amditis, Institute of Communication and Computer Systems (ICCS), Greece

- **Consortium**: 38 partners, 14 countries
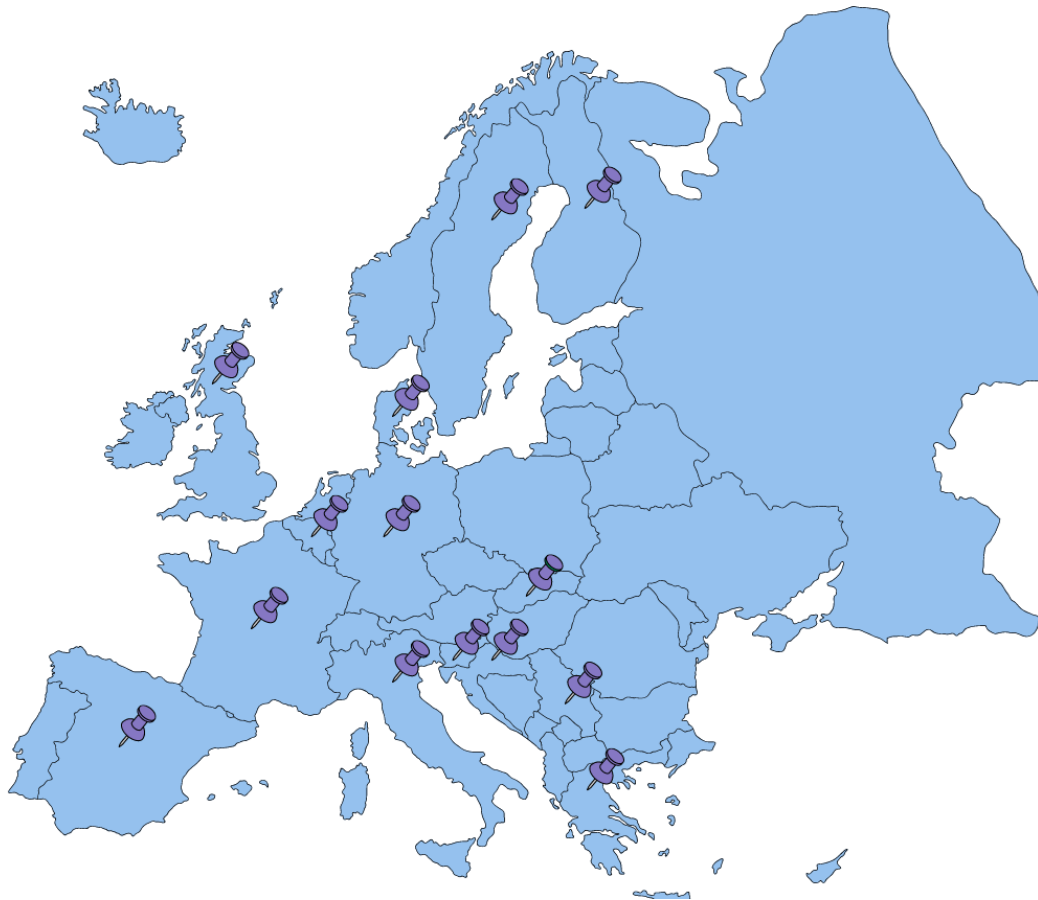
Associated Partners:

# Motivation & Aim

The way transport services and infrastructure are designed, operated and maintained strongly characterizes the space they serve, directly impacting the safety, resilience and sustainability of communities, cities, regions and citizens' quality of life. Smart mobility planning and urban public space design and allocation must reflect the views and needs of their users and relevant stakeholders to positively change how transportation is conceived and performed.

**ELABORATOR is the European Living Lab on designing sustainable urban mobility towards climate-neutral cities with that aims to use a holistic approach for planning, designing, implementing and deploying specific innovations and interventions towards safe, inclusive and sustainable urban mobility.**

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Ambition

- ✓ Provide **methodologies, practical tools, recommendations, and guidelines** to support urban planners, industry, authorities and policy makers in defining and introducing safe, sustainable and inclusive urban mobility in our lives based on the **new EU Urban Mobility Framework** and **Climate Neutral and Smart Cities Mission**

- ✓ **Involve all** in the design, implement and evaluation phases of innovations

- ✓ Provide local authorities with **foresights onto future offers to test and adjust upcoming policies**

- ✓ Define and apply a **twinning methodology** to establish strong bonds and collaborations between the project's diverse **European cities** and several **EU initiatives** to create a **knowledge hub between them in a built-in learning cycle**, with extensive tools for analysing and exchanging experience within the whole project duration and beyond

- ✓ Increase the **speed of the take-up and up-scaling of innovative, best practice and replicable safe, affordable and sustainable urban mobility solutions** in a European level towards fulfilment of the **EU Zero Pollution Action Plan's** objectives, the **Sustainable and Smart Mobility Strategy** and the **Road Safety Policy Framework for 2021-2030**

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# Objectives in a nutshell

| | | |
|---|---|---|
| Identify real mobility needs and public space re-design needs<br><br>**1** | Improve methods for the collection of data towards discovery, replication and quick uptake<br><br>**2** | Boost the levels of active mobility, particularly walking and cycling via interventions<br><br>**3** |
| Support local authorities in accelerating mobility changes<br><br>**4** | Evaluate the local solutions implemented & establishing mechanisms for common lesson learning<br><br>**5** | Provide guidance on systematic incorporation of the VRUs dimension into infrastructure planning (Member States & Associated Countries)<br><br>**6** |

# Objectives in detail

| Identify real mobility needs and public space re-design needs | | Improve methods for the collection of data towards discovery, replication and quick uptake |
|---|---|---|
| | **1** | **2** |

## How ?

**Identify real mobility needs and public space re-design needs (1)**

- ✓ Collect and analyse citizens' requirements and needs towards safer, cleaner and more inclusive and sustainable mobility in cities
- ✓ Use urban mobility advanced co-creation toolkit
- ✓ Implement a citizen and stakeholder participatory framework and an Inclusion Plan
- ✓ Enforce a meet-in-the-middle methodology
- ✓ Gather representative citizens' and stakeholders' groups in each of the 12 Lighthouse and Follower cities, and expand this to Observer cities

**Improve methods for the collection of data towards discovery, replication and quick uptake (2)**

- ✓ Create a framework and tools for the collection, analysis and sharing of data and information on travel needs, patterns and behaviours
- ✓ Deploy early assessment of local mobility patterns and risk issues
- ✓ Assess mobility changes
- ✓ Promote active citizens' participation, co-creation and tactical urbanism
- ✓ Enforce machine-learning analytic, prediction models and visualization tools
- ✓ Facilitate twinning, replication and uptake between the cities

# Objectives

Boost the levels of active mobility, particularly walking and cycling via interventions

**3**

## How ?

Support local authorities in accelerating mobility changes

**4**

- ✓ Implement innovative, citizen-oriented mobility interventions in 6 Lighthouse and 6 Follower cities LLs, showcased and tested for at least 6 months
- ✓ Incorporate a range of technological trends and tools
- ✓ Offer more safe space for active, green and safe modes of mobility
- ✓ Interventions discovery, definition and validation based on the citizen and stakeholder participatory framework and advanced co-creation and diagnostic toolkits
- ✓ Follow a "twinning" approach

- ✓ Create mobility LLs
- ✓ Follow pioneer methods for citizen/stakeholders engagement and inclusion
- ✓ Improve the long-term sustainability with knowledge-sharing "twinning" approach
- ✓ Follow a multi-stakeholder governance and framework and business plan for results exploitation
- ✓ Create a knowledge hub including collection of real demo data
- ✓ Perform capacity building via trainings and guidelines
- ✓ Maintain a long term living lab knowledge exchange and lessons learnt

# Objectives

<table>
<tr>
<td>Evaluate the local solutions implemented & establishing mechanisms for common lesson learning **5**</td>
<td rowspan="2" align="center">**How ?**</td>
<td>Provide guidance on systematic incorporation of the VRUs dimension into infrastructure planning (Member States & Associated Countries) **6**</td>
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</table>

- ✓ Use qualitative and quantitative analysis to measure solutions and interventions
- ✓ Assess environmental, safety (physical and psychological) and social impacts, reduce GHG emission, increase in inclusivity and road safety
- ✓ Include safety assessment models, safety perception tools, user surveys and interviews, workshops and focus groups
- ✓ Validate with the groups of users and stakeholders
- ✓ Estimate impact of broader deployment to support planning and decision-making using simulation tools
- ✓ MoU with CIVITAS and other Initiatives and sister projects support

- ✓ Communication, dissemination and exploitation actions following Inclusion Plan
- ✓ Guide and recommendations document for adopting ELABORATOR methodology in Europe and beyond
- ✓ Scientific and technical papers
- ✓ Lessons learnt during COVID-19 and suitable solutions for resilience, safety and accessibility of public infrastructure
- ✓ Reference to, SUMI, SUMP coordination platform, ELTIS, thematic SUMP topic guides
- ✓ Guidance will be shared with the upcoming European Urban Initiative of Cohesion Policy, the Urban Agenda for the EU

# Living Labs

# Living Labs ◆ Lighthouse Cities

**Milan, Italy**



**Copenhagen, Denmark**



**Helsinki, Finland**



**Issy-les-Moulineaux, France**



**Zaragoza, Spain**



**Trikala, Greece**



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# Living Labs ◆ Follower Cities

**Lund, Sweden**



**Liberec, Czech Republic**



**Velenje, Slovenia**



**Ioannina, Greece**



**Split, Croatia**



**Krusevac, Serbia**



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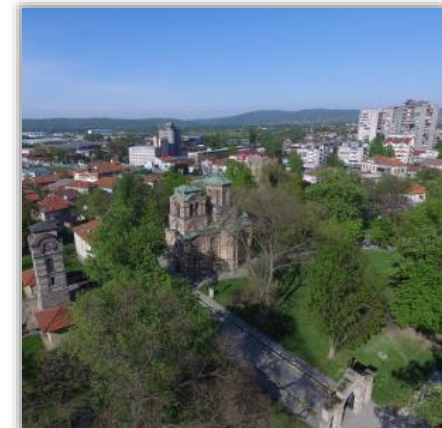
# Living Labs ⚙ Planned Interventions

**Data collection and monitoring**: where cities will monitor and collect data mainly through sensors, Apps, 3D models and citizens surveys (online or in-person) in order to create a KPI baseline of the areas and propose measures for the re-design of the public space in order to provide safe, inclusive and sustainable urban mobility services.

**New modes, means and services solutions to optimize public space and mobility**: where cities will focus on the development of physical and virtual solutions on the roads, crossings and streets to improve road safety, especially for pedestrians and cyclists (e.g., re-allocation and new stations for bikes, smart crossings installation, light-emitting markings, etc.) without compromising physical environment (and considering circular economy principles where possible).

**Online applications, artificial intelligence and digital twins**: where cities will make use of location-based social media, camera -based tracking, counting stations, data from public transport smart cards AI, DT and related technologies to improve the collection of data and planning of the areas.

**Participatory research and engagement of vulnerable to exclusion groups**: where cities will perform participatory research considering all involved users, including pedestrians, cyclists and other vulnerable to exclusion groups to better understand their feelings and considerations in road mobility.

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# Living Labs ⚙ Interventions' Summary

| | LH1 | LH2 | LH3 | LH4 | LH5 | LH6 | F1 | F2 | F3 | F4 | F5 | F6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MIL | CPH | HEL | ISS | ZAR | TRI | LUN | LIB | VEL | IOA | SPL | KRU |
| Data collection | X | X | X | X | X | X | X | X | X | X | X | X |
| Participatory research | X | X | X | | X | X | | | | | | X |
| Mobile/Web App | | | | X | X | X | X | | | X | | X |
| Ride stations | X | | X | | X | X | | | X | | | |
| Crossings optimisation | | X | X | | | X | | | | | | |
| Location-based social media | | X | X | X | X | | | | | | | |
| Safety measures for bikes | X | X | X | X | X | X | X | | | X | X | X |
| Parking research | X | | X | X | | X | | X | | X | X | |
| Traffic research | | X | X | X | X | | | | X | X | X | |
| Sustainability assessment | X | | | X | X | | X | | | | X | X |
| Camera sensors | | X | X | | X | | X | | | X | X | |
| Tactical Urbanism | X | X | | | | | | | | | | X |
| Re-design of public space | X | X | X | X | X | X | X | X | | X | X | X |
| AI/Digital solutions | X | X | X | X | X | X | X | | X | | X | |
| Recommendations | X | X | X | X | X | X | X | X | X | X | X | X |

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# Thank you

Name:

Organization:

Contact details: