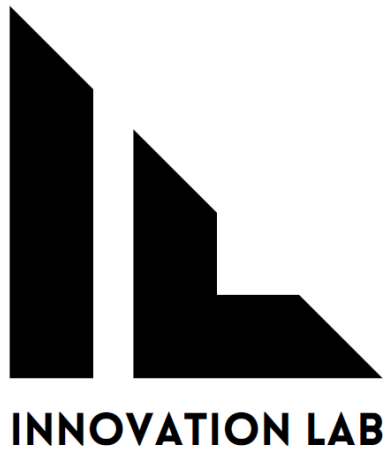




Comunidad de Madrid
Oficina para Madrid Nuevo Norte



Innovation Lab – Areas of interest



INNOVATION LAB

May 2023



INNOLAB – Areas of primary interest



- **INNOLAB has selected seven thematic areas of primary interest in respect of the design and construction of Madrid Nuevo Norte:**

• Sustainability	• Management of water resources
• Mobility	• Waste management
• Energy	• Development of urban solutions
• Innovation in constructive solutions	

- **These thematic areas translate into specific lines of interest for projects at INNOLAB;** the list is open and we will add to it if new lines appear:

Sustainability

- Decarbonisation and climate action is a priority for the city of Madrid and is at the core of the Madrid Demo 360 Area. One of its focus is promoting a low-emissions construction sector and at INNOLAB we seek to consider the use of decarbonized building materials such as decarbonized steel and more as they get available.

Mobility

- 100% zero-emissions public transport, public charging facilities and possibly bidirectional electric chargers.
- Zero-emissions transport is a priority of the Madrid Area Demo 360; it will also include a segregated-lane priority bus with stops at 5-10 min reach and low-emissions priority parking. The expectation is to have only 20% of all trips made on private vehicle at the Central Business District.

Energy

- Energy efficiency and decarbonisation at buildings through better insulation, generation of renewable energy with solar panels, use of renewable sources as geothermal and aerothermal and possibly 5th generation district heat and cold grids (5GDHC).
- All heating and cooling will be electric-based.

Innovation in constructive solutions

- BIM/3D design including data on decarbonisation targets. Use of Digital twin, augmented reality and metaverse.
- Use of sensorization in under- and above-ground infrastructures.
- Innovative techniques of industrialized construction.

Management of water resources

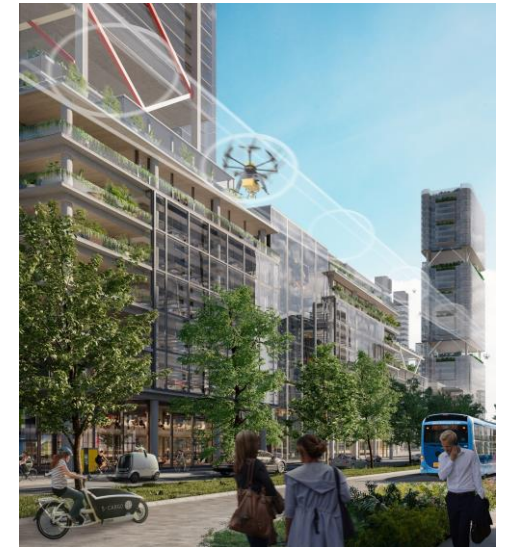
- Drainage through SUDs (Sustainable urban drainage systems) preventing blockage by silt; reuse of water.
- Naturalization of green areas, eco-bridges and corridors, and connection with the Madrid green arch and metropolitan forest; use of innovative plant varieties and sensorized networks to reduce water consumption.

Waste management

- Low-emissions waste collection systems.

Development of urban solutions

- Use of drones for last-mile pick-up and delivery; update on evolution for other-use drones





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Thank you!