



CITWIN

A generic digital twin framework to foster sustainable mobility in the 15-minute city

Project duration:
11. 2023 - 10. 2026

Involved staff:
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Role Z_GIS:
Academic project partner

Website:
<https://citwin.eu>

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Initial situation:

To implement the 15-minute city (15mC) concept in urban areas, we need to rethink and reorganise our mobility systems. Digitalisation is a key factor in this process, with digital twins being one of the promising technologies to be utilised. We aim to explore this potential by developing a generic digital twin framework that allows us to model interventions in the urban transport system, explore and simulate their impact, and evaluate their contribution towards the realisation of a 15mC. In this, a special focus is put on human-centred approaches.

Project goals:

- Design and development of a generic digital twin framework for sustainable transport planning in the 15mC.
- Definition of quantifiable goals relevant to sustainable urban development in the 15mC, measured along human-centric dimensions.
- Development of policy evaluation methods to assess sustainable transport strategies in the 15mC.

Expected results:

- New insights into the potential of digital twins for the 15mC.
- Software stack of a proof-of-concept digital twin solution for the 15mC.

Contribution Z_GIS:

- Development of a human-centric assessment framework for accessibility, walkability, and bikeability in the 15mC.

Project partners: University of Liege (project lead), University of Aarhus, KTH Royal Institute of Technology Stockholm, Municipality of Aarhus, Municipality of Eskilstuna, Triply GmbH, European Cyclists Federation (ECF)

