CONNECTED
URBAN
TWINS

# Digital Twins, Knowledge Transfer and Prototyping

## Connected Urban Twins
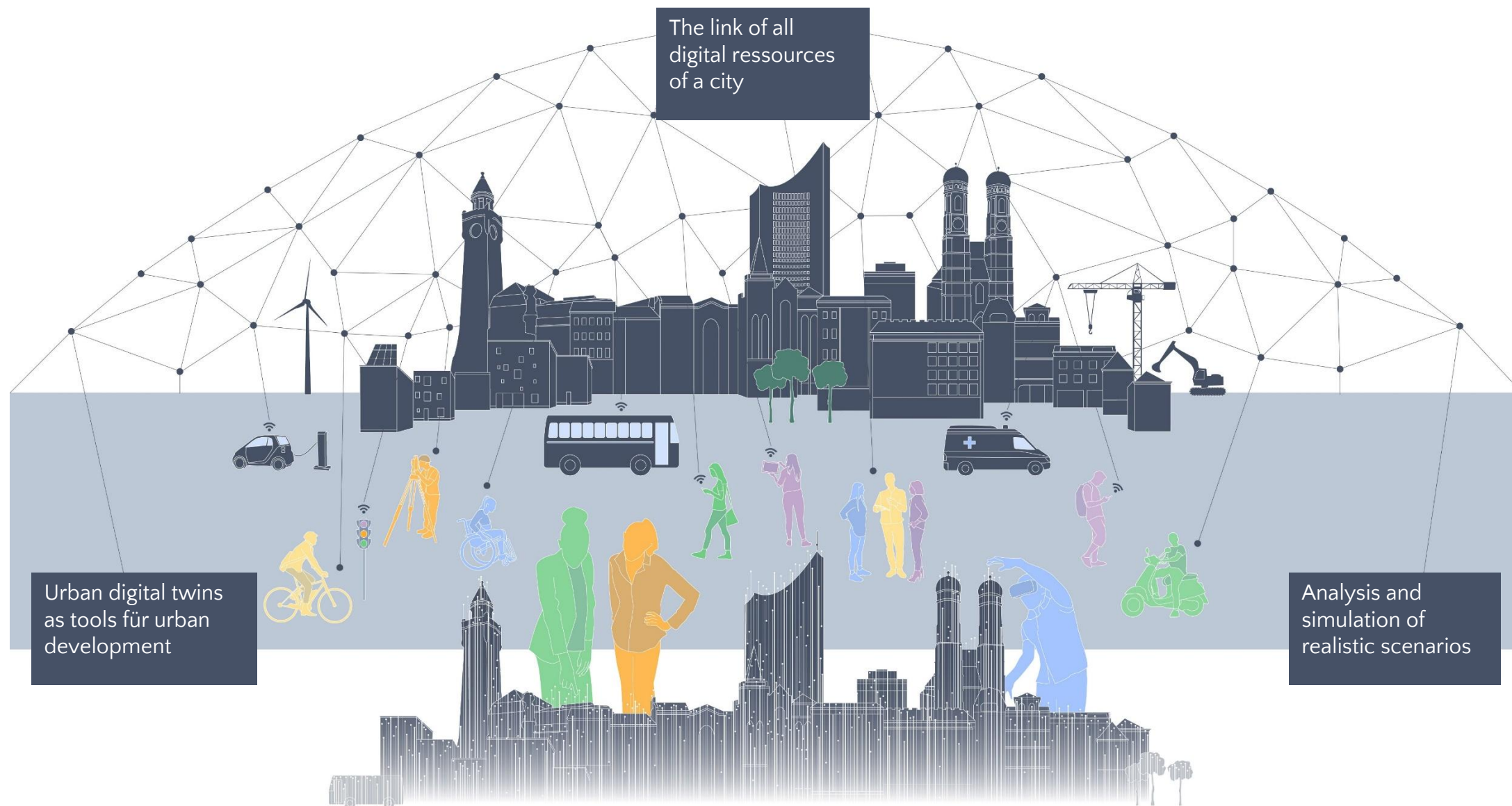
Partner Cities:

Hamburg

Stadt Leipzig

Landeshauptstadt München

Funded by:

Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen

KFW

June 10th, 2025

# Urban Digital Twins: virtual copies of the city



The link of all digital ressources of a city

Urban digital twins as tools für urban development

Analysis and simulation of realistic scenarios

# Our vision

Together we are developing Urban Digital Twins for use in integrated urban development.

**Urban Digital Twins digitally represent our cities and can be used to play out 'what-if' scenarios for cities that are sustainable and improve the quality of life.**

Hamburg

**Stadt Leipzig**

Landeshauptstadt München

# Childcare network planning



## Interactions in urban planning

The childcare network planning use case as part of the CUT project establishes a **tool for integrated urban planning** and combines the data and requirements of **two specialized departments**. This creates transparency for the fulfilment of the legally prescribed availability of childcare places and enables the simulation of interactions in the area of urban planning.



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# Five specialist areas

**CUT**

## Urban Data Platforms and Digital Twins

Further development and operational use of replicable Urban Data Platforms and Digital Twins

## Innovative use cases in urban development

Evaluation of Urban Data Platforms and Digital Twins in current urban development use cases

## Participation by the urban community

Co-creative development and use of innovative digital participation formats, tools and processes

## Transformative experimental urban research

Linking technology research with social science research relating to Urban Digital Twins

## Replication and knowledge transfer

Internal project knowledge management, supraregional knowledge transfer and exemplary replication of project outcomes

# Our current formats

| Knowledge management | Knowledge transfer | Replication |
|---|---|---|
| (status recording, expert mapping) | Resources and downloads section at https://www.connectedurbantwins.de | Replication plan (coming soon) |
| Product database | Useful information for local authorities | Inter-municipal co-operation: Leipzig-Partheland |
| | CUT Academy | |
| | Strg+c[ut] | |
| | Glossary | |

# Knowledge transfer and dialogue

## Sharing knowledge through our CUT Academy

- Webinars by CUT experts
- free of charge and freely accessible
- Topics: Urban data platforms and digital twins, use cases, urban research, citizen participation

https://www.connectedurbantwins.de
/en/knowledge-transfer/welcome-to-
the-cut-academy/all-posts-chronolog
ically/



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# Sharing knowledge through our CUT Academy

# Our City Cooperation on openCode.de

- Our project relies on an open, modular architecture based on open source
- Goal is the development, reuse and scaling of digital urban development tools
- openCode serves as a central platform for providing the software developed in the project
- To make digital twins usable for all municipalities all of our components are published and documented under open licences



https://gitlab.opencode.de/connected-urban-twins

# Leipzigs Prototyping Plattform

**This platform is a game changer!**

- The pop-up platform is structured like a cloud data centre
- This makes it the ideal place to quickly mou[nt] a prototype

- Developing prototypes together under production conditions
- Evaluate software in hours (instead of months)
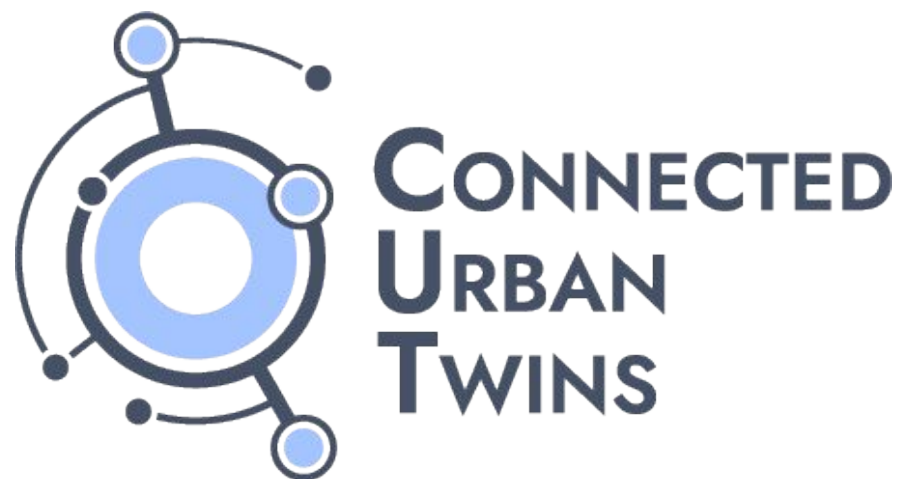- Test solutions immediately (instead of planning forever)
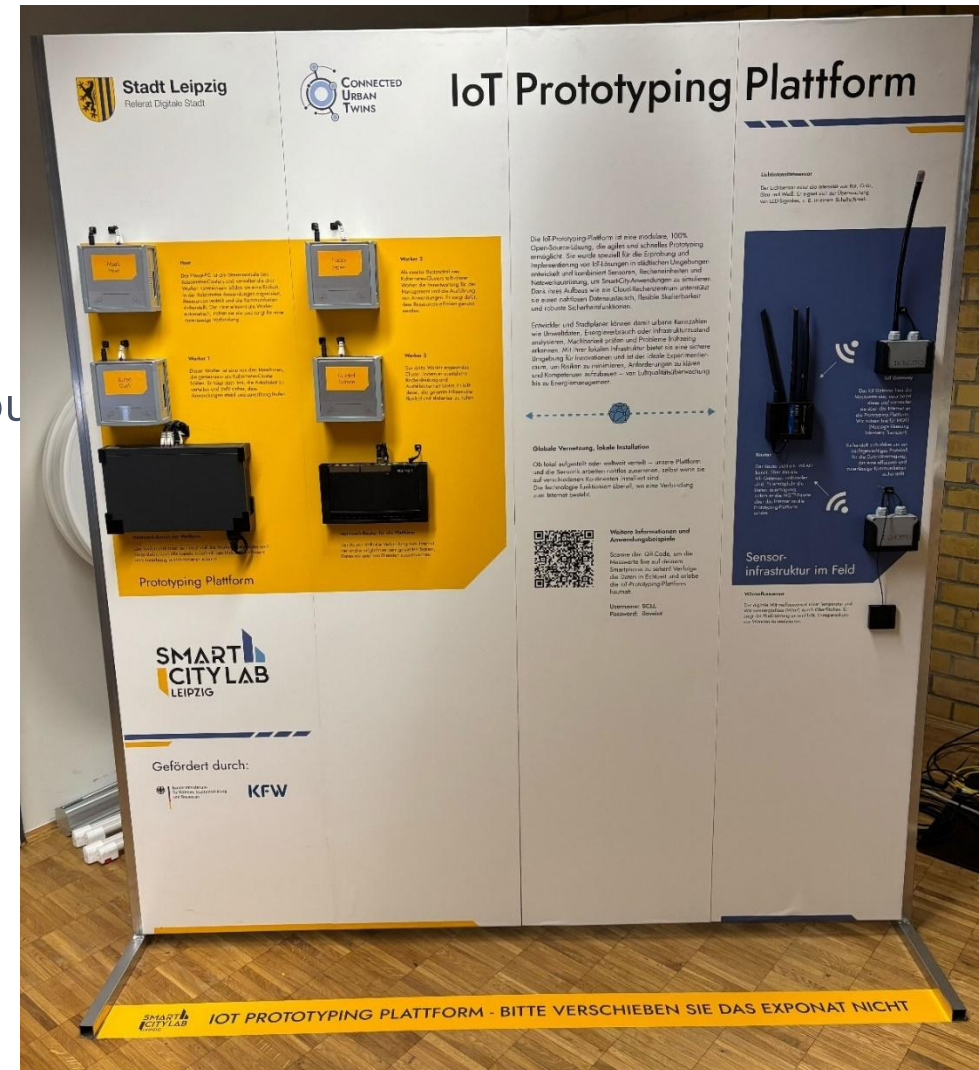


More information and construction plan on:

platforming.i

CUT

# Connected Urban Twins

**Thank you
for your attention!**

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