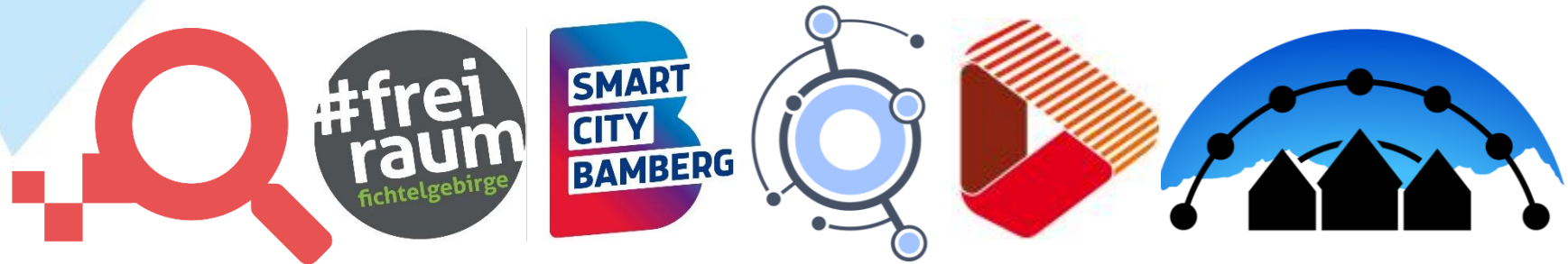


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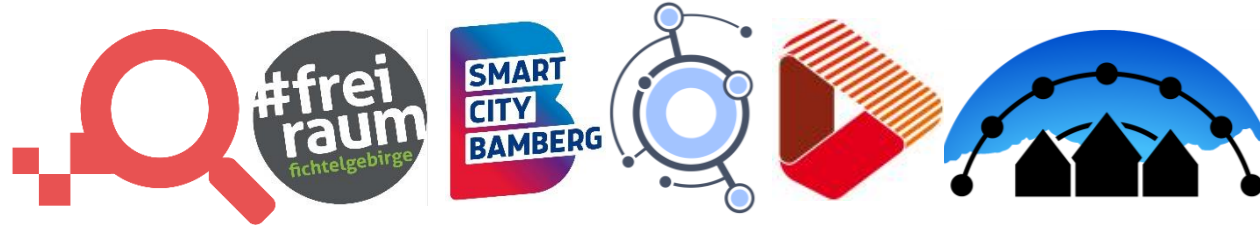
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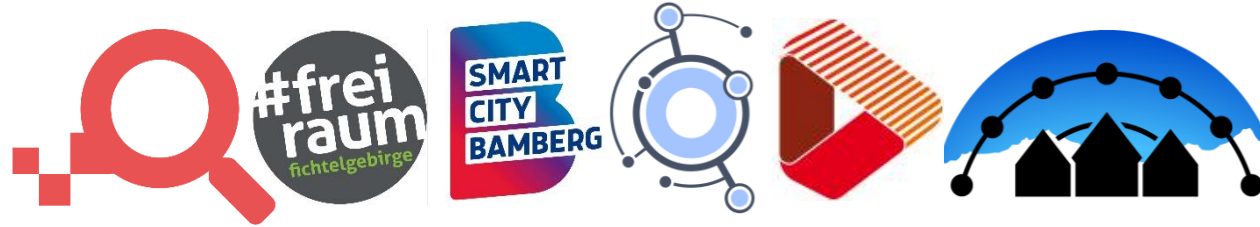
- have already set out to become smart
- use the opportunities offered by information and networking technologies in the interests of sustainable and integrated urban development
- the goal is always to improve the quality of life for citizens and to increase the opportunities for participation and co-design for every individual
- must meet their highly individual challenges with the opportunities offered by innovative technologies and solutions
- develop new approaches to finding solutions in co-creative processes
- rely in their development processes on transparency and dialogue at eye level

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- often face very similar challenges or develop comparable approaches to solutions
- are important for testing, developing and implementing solutions, that are transferable and applicable to others in the best possible way
- use intensive networking and constant transfer of knowledge between the network, across Germany and around the world
- build up strong networks and use increasingly joining forces to form development communities in order to establish complex, standardized and transferable systems

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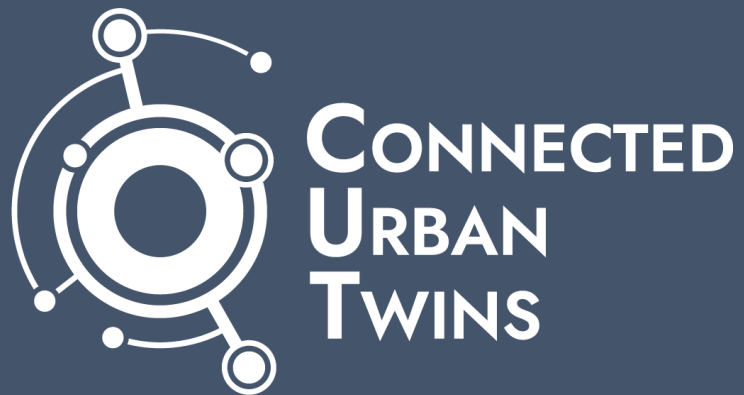
CONNECTED
URBAN
TWINS

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URBAN DIGITAL TWINS FOR INTEGRATED URBAN DEVELOPMENT

Partnerstädte:

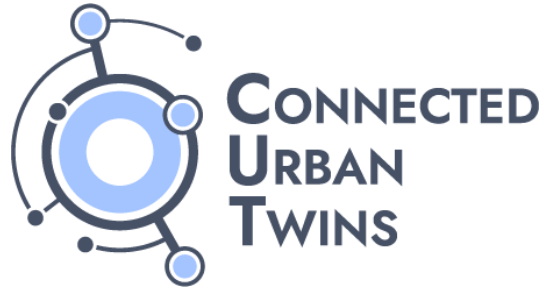


Landeshauptstadt
München

Gefördert durch:



CUT Project Overview



Participating project cities:



Funded by:



3 Project cities	70 Team members	73 Smart City pilot projects („Modell Projekte Smart Cities“, MPSC)
5 years Project duration: January 2021 to December 2025	32,4 M € Project volume	BMW SB Funding: Federal Ministry of Housing, Urban Development and Construction

Our Vision

Together we develop Urban Digital Twins for Integrated Urban Development.

Urban Digital Twins digitally map our cities and enable what-if scenarios for liveable and sustainable cities.

With integrated data in Urban Digital Twins, urban planners and citizens can better understand complex urban development contexts and make more informed decisions.

Innovative digital tools enable democratic participation processes.



3D-City Models of Hamburg, Leipzig und Munich

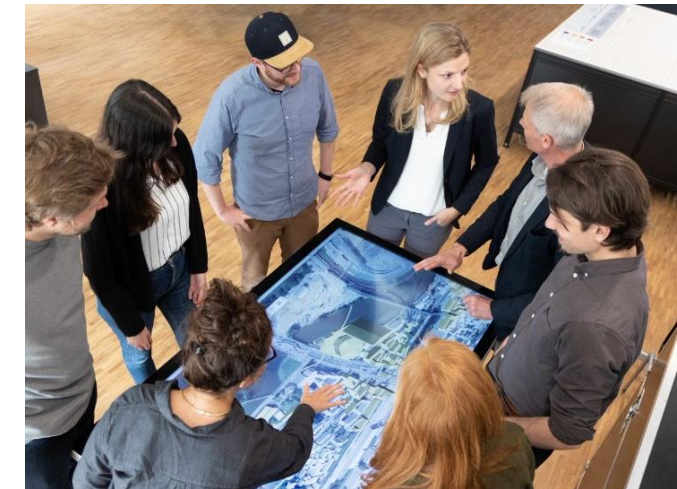
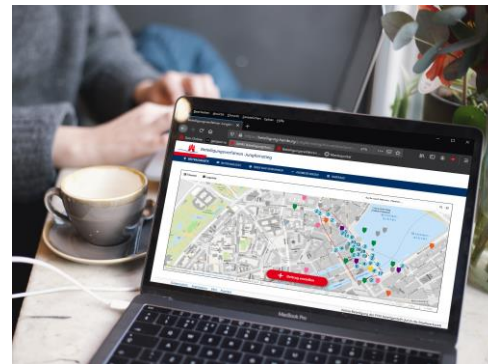


14.11.2022

CUT: Urban Digital Twins for integrated Urban Development

Photos: Landesbetrieb Geoinformation und Vermessung
Hamburg, Geoportal Leipzig, Landeshauptstadt München

Urban Digital Twins in practice



14.11.2022

CUT: Urban Digital Twins for integrated Urban Development

Fotos und Grafiken: Heike Gebhardt, Stadt Leipzig (obere Reihe v.l.n.r.), Landeshauptstadt München, Behörde für Stadtentwicklung und Wohnen, Stadt Leipzig, Angela Pfeiffer (untere Reihe v.l.n.r.)



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STADT BAMBERG

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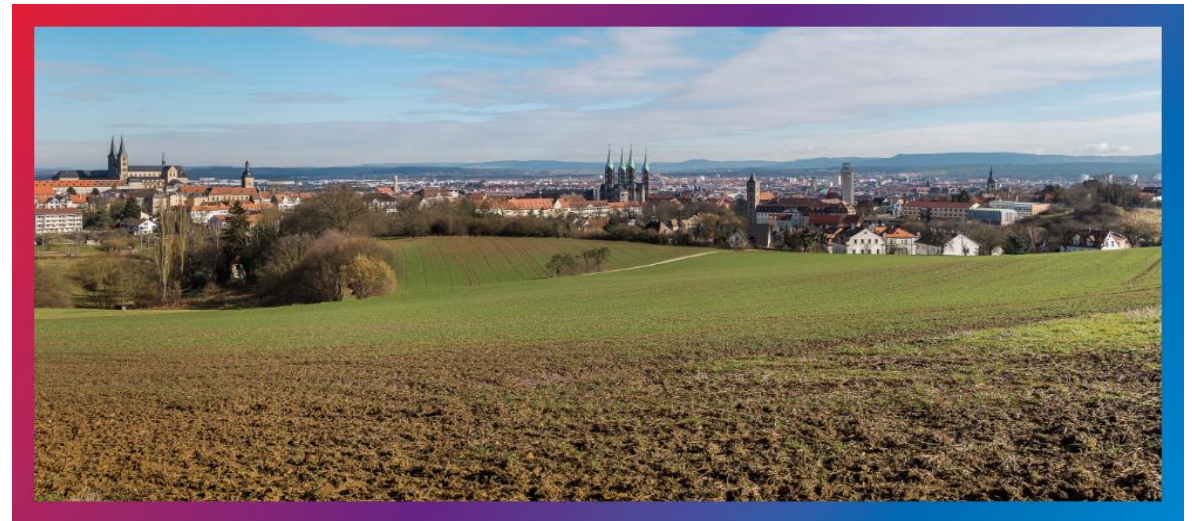
Citizen participation as a central characteristic of Bamberg's Smart City program

- Bottom-up-approach: from the citizens to the administration
- Great response by the urban society:
- Over 250 ideas were handed in, which then were filtered to around 40 project ideas in first instance.
- Out of those 40 project ideas 30 project sketches had been developed.
- The idea providers will be now taken to the next step and are seen as a serious partner of the city's administration when it comes to the realisation of the projects.



World Heritage as a particularity of Bamberg

- The old town of Bamberg is labeled as UNESCO World Heritage since 1993.
- With the special protection of the UNESCO for the historical garden town, also parts of the Bamberger culture are marked as World Heritage.
- One of the central Program's goals is to build digital measures to support the protection of our UNESCO World Heritage.





➤ **1. mobility App:**

Our mobility app that is being developed by the public utilities companies and gives you advice on which conveyance to use. Pay in one app for the bus, carsharing or scooters.

➤ **2. digital twin:**

Our digital twin of the town, which will be useful as model basis for simulations in different fields: e.g. the monitoring of the world heritage as well as planning of smart disaster prevention measures.

➤ **3. BaKIM:**

Our tree and forest safety project. The whole tree population will be monitored by drones, therefore diseases and other dangers of climate change may be detected by the AI, before they are able to spread.

➤ **4. smart visitor guidance:**

Our Project to relieve typical crowded spots within the old town. Gathered WIFI data will provide the opportunity for visitors to avoid the tourist streams and therefore avoid crowded places.



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Smart City Research Lab Bamberg

University of Bamberg



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Smart City Research Lab Bamberg



Interdisciplinary research network

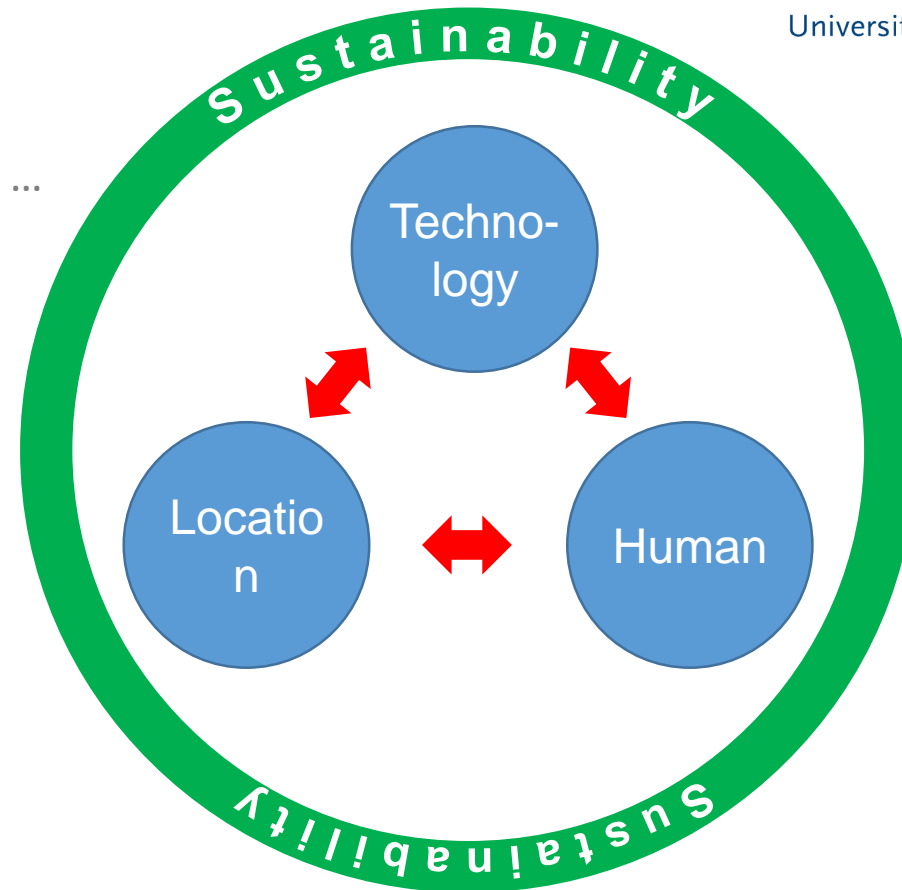
Informatics, Geography, Psychology,
Philosophy, Digital Heritage Conservation, ...

Support Smart Cities in progress

Expert conseling, „trial ballon“ projects,
public lecture series, technology
assessments, raise further funding, ...

Smart City Research and Teaching

Interdisciplinary PhD programme,
study programs, student theses, ...



University of Bamberg



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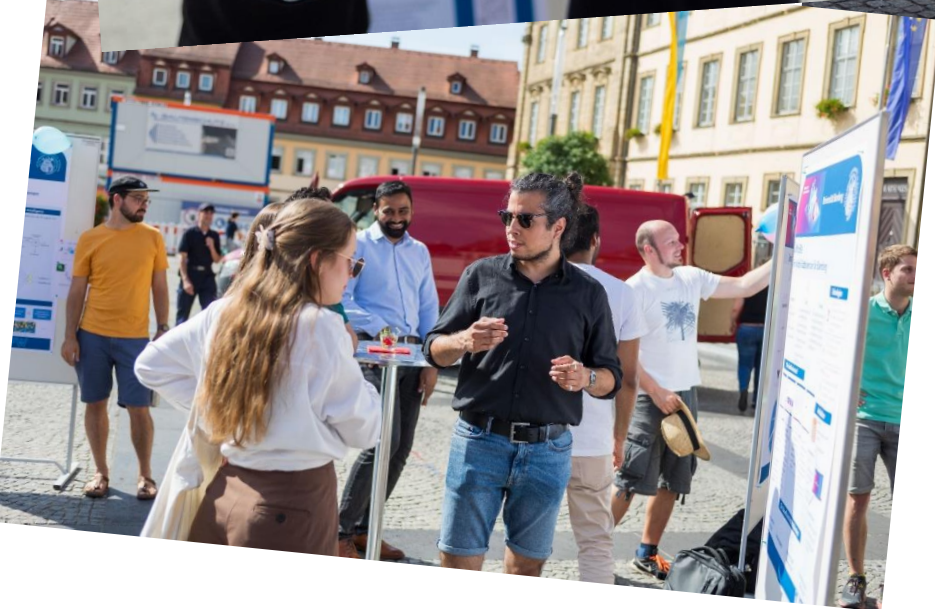
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Public exhibition of „trial balloon“ projects

Smart City Research Lab Bamberg

University of Bamberg



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Smart City Research Lab Bamberg



We are open for collaboration!

Joint (European) research projects,
transfer studies,
(student) exchange, ...

Contact us:

<https://www.uni-bamberg.de/scrl>

info.scrl@uni-bamberg.de

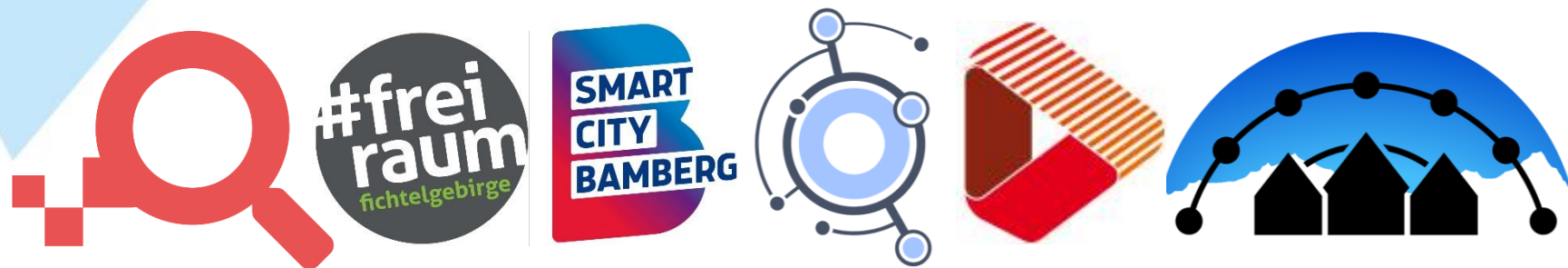


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Landkreis Wunsiedel i. Fichtelgebirge

#frei
raum
fichtelgebirge

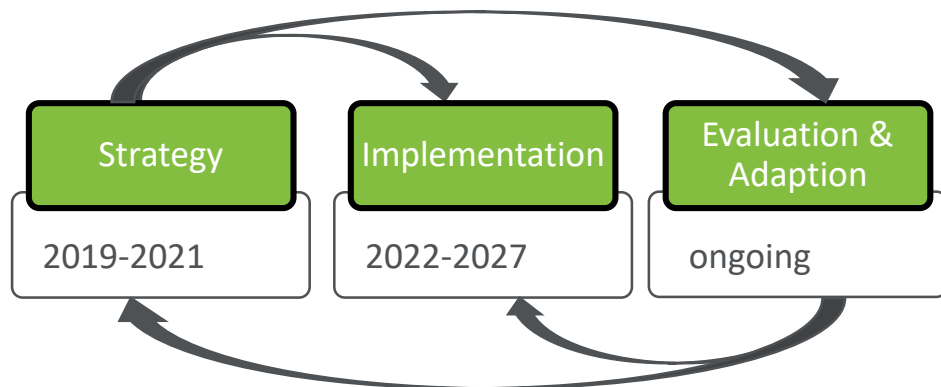
#smarterfichtelgebirge

#frei
raum
fichtelgebirge

vision and guidelines



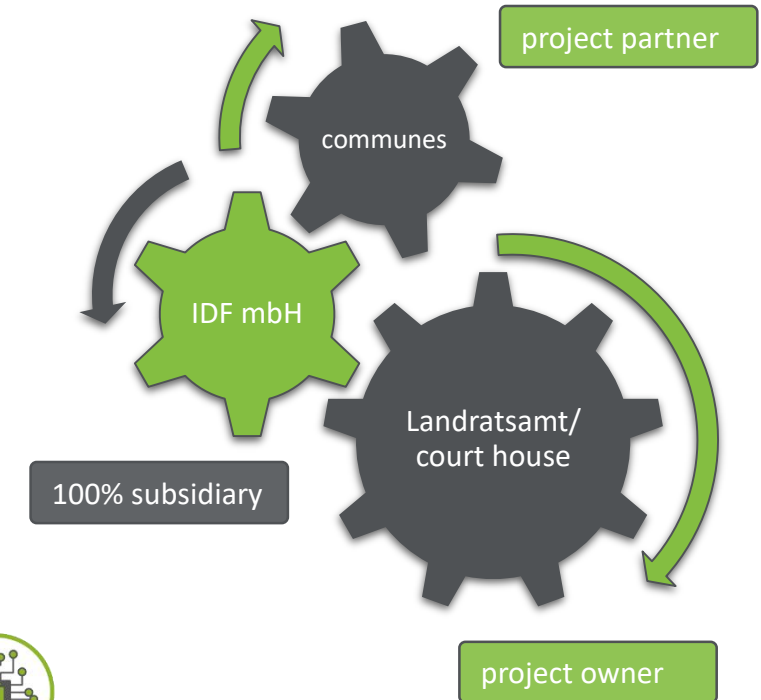
timetable



fields of action



project participants



database area development



make digitalization
tangible



on demand mobility



administration
academy



data platform



visualizing
energy flows



future-tourism
(AR & VR)



supporting
schools



innovative
health care



database
adaption strategies



FichtelApp

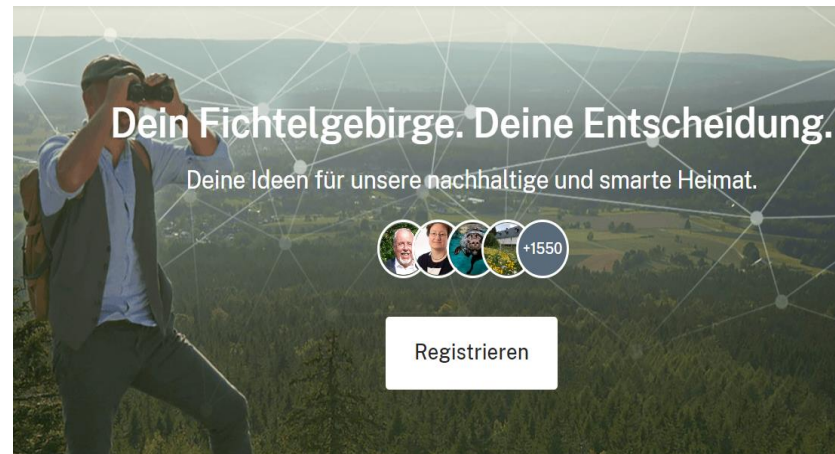
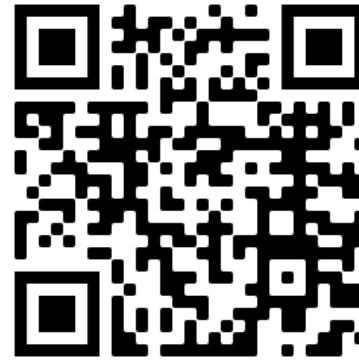
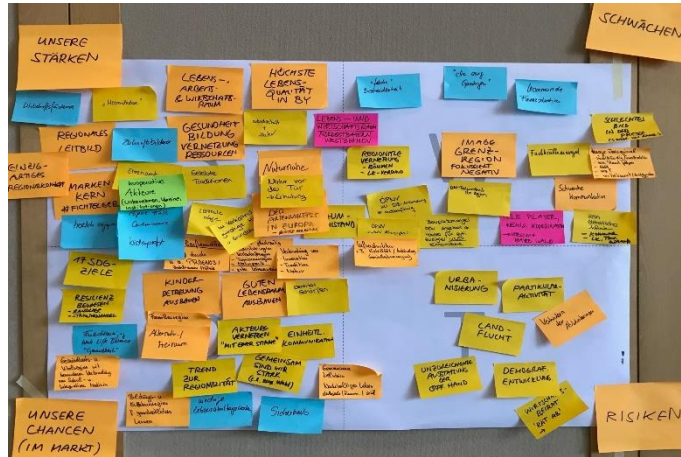


volunteer help desk



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SMARTREGION

Apfeldorf - Unterdießen - Fuchstal

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strategy development

participation

scientific monitoring & documentation

public relations, knowledge transfer and communication

The path to a smart region as a learning process with many interfaces to local fields of action

education



clean energy production



community and participation

Digitalization
as a connecting
element



services of general interest



sustainability

administration

mobility

infrastructure

and much more...



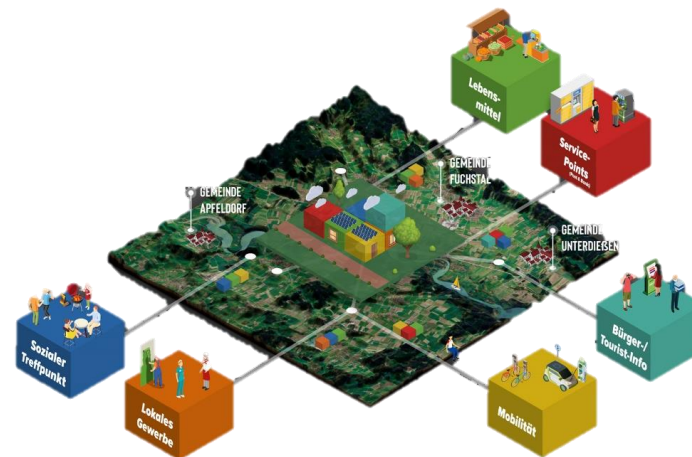
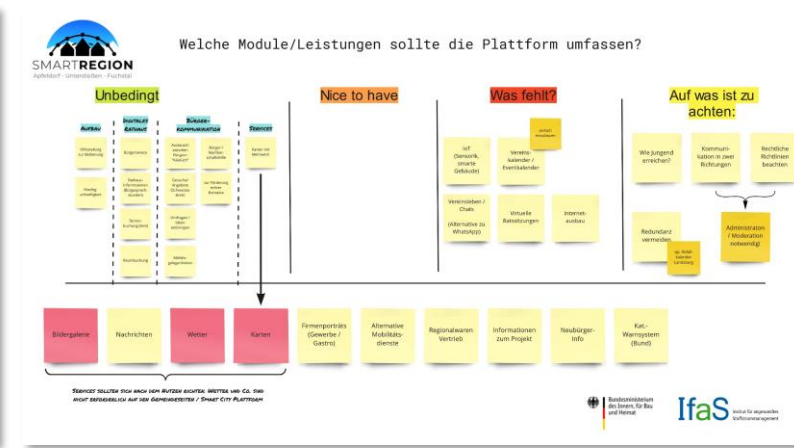
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Quelle: <https://www.gemeindezeitung.de/homepage/index.php/inhalt/artikel/kommunale-praxis/4455-gz-24-2021-gz-bayerisch-israelisches-kooperationsprojekt-smart-city-werkstatt-stadtplanerische-zukunftsloesungen-im-visier>



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R_next



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STADT
REGENSBURG



3
3
3

dimensions for sustainable development: **GREEN, FAIR, PRODUCTIVE**

basic principles: oriented towards common good, integrated, participatory

areal levels: district, city, region

Phase A: Strategy

june 2023

Writing a strategy and a participation process

Implementation of flagship projects

- Digital Energy Twin: Operating energy-efficient housing
- Smart Move: Smart urban mobility and services
- Co-Creative Lab: Collaborative urban innovation
- Virtual world heritage: Digital ways of inclusive cultural experience
- New Horizons Old Town: Rethinking economy and leisure

Phase B: Implementation

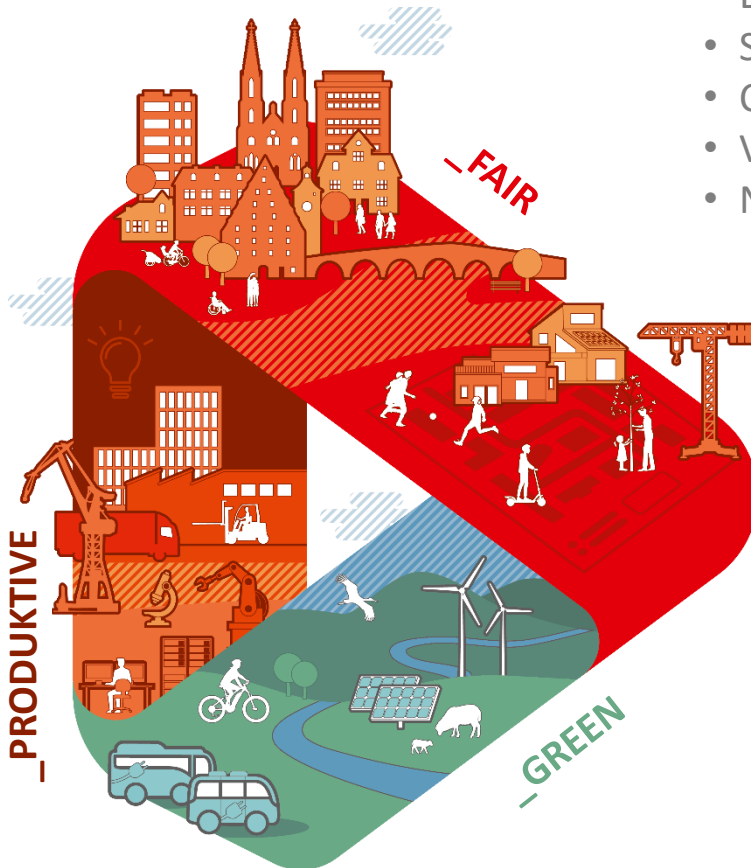
december 2026

Continued advancement of smart city projects concerning

- Place to live
- UNESCO World Heritage Site
- Innovation hub
- Regional center

Phase permanent beta: continuous smart city process

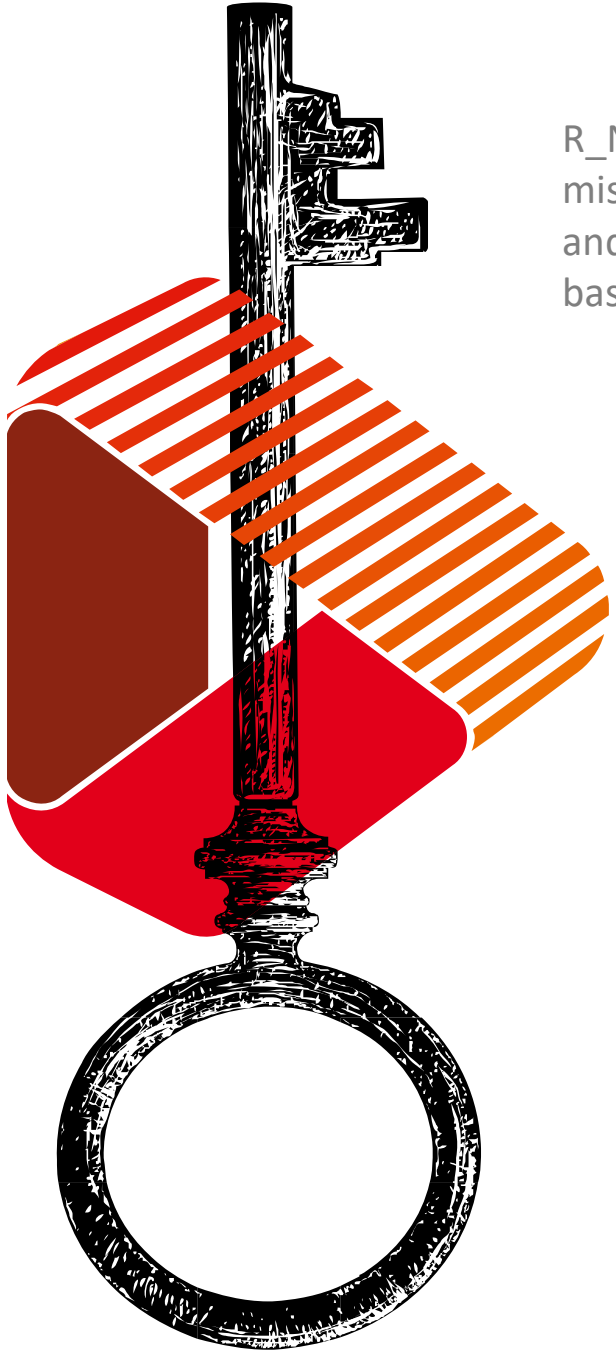
Further development of the smart city strategy and permanent implementation of smart city measures



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R_NEXT as an urban **transdisciplinary** mission of **interdisciplinary cooperation** and strong **networking** as a basis for broad-based **exchange** and **knowledge transfer**



R_NEXT as an **ecosystem** with centralized, standardized, open and cross-actor **infrastructure** components for **data**, **systems**, **interfaces** and **solutions**



R_NEXT for **piloting**, **developing** and **implementing** innovative solutions to meet urban development challenges in a **future-oriented** and **user-centered** manner



R_NEXT as a **space of opportunity** with framework conditions that are negotiated jointly with the **city's society**

R_NEXT as a **cross-administrative project** with a wide range of **competencies**, **know-how** and **expertise**



