How do we Design Intelligent Cities and Regions of the Future in a Skills-orientated Way through Networked Working?

Real Corp Conference

29th International Conference on Urban Planning and Regional Development

April 15th | Mannheim
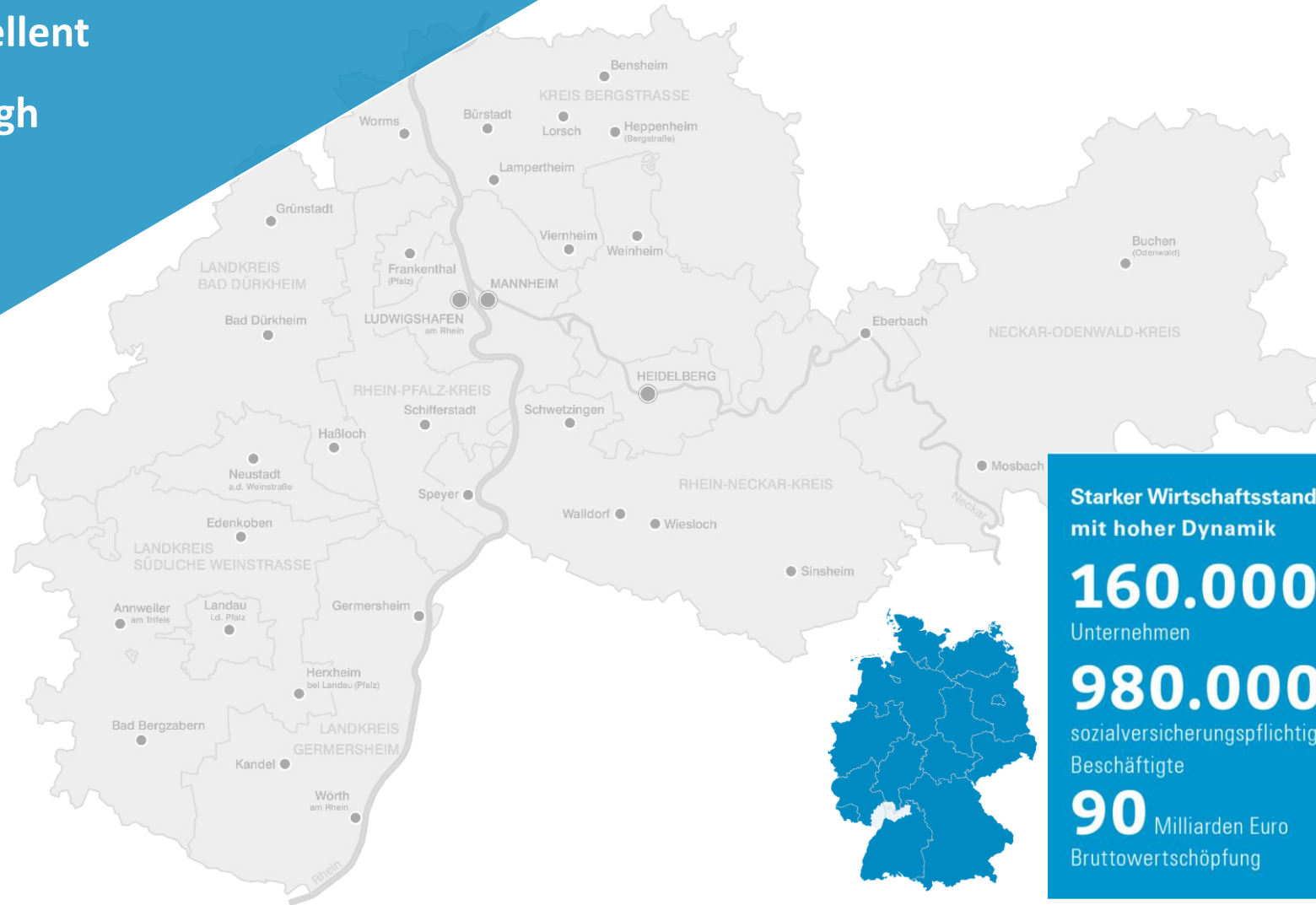
The Rhine-Neckar metropolitan region is characterized by its central location, excellent infrastructure and high economic strength

Branchenvielfalt
Informationstechnologie
Biotech und Life Sciences
Chemie
Maschinen- und Anlagenbau
Automotive
Bau und Immobilien

9 Börsenunternehmen mit 192,2 Mrd. Euro Marktkapitalisierung
(Rang 4 im Vergleich der deutschen Metropolregionen)

BASF, Heidelberg Materials, SAP, Fuchs, Bilfinger, Hornbach, Südzucker, Heidelberger Druckmaschinen, CropEnergies

Starker Wirtschaftsstandort mit hoher Dynamik

160.000* Unternehmen

980.000* sozialversicherungspflichtig Beschäftigte

90 Milliarden Euro Bruttowertschöpfung

Strong Partners in Regional Development

Financing regional development

Shareholders

Metropolregion Rhein-Neckar — Der Verein

Metropolregion Rhein-Neckar — Der Verband

IHK Rhein-Neckar

IHK Darmstadt Rhein Main Neckar

IHK Pfalz

Handwerkskammer Mannheim Rhein-Neckar-Odenwald

Handwerkskammer Frankfurt-Rhein-Main

Metropolregion Rhein-Neckar — Die GmbH

Partners

ABB

abbvie

aurelis

BASF — We create chemistry

FREUDENBERG — INNOVATING TOGETHER

FUCHS — LUBRICANTS. TECHNOLOGY. PEOPLE.

HEIDELBERGCEMENT

HORNBACH Holding

JOHN DEERE

MLP

MVV

PFALZWERKE GRUPPE

PHOENIX group

Roche

SAP

Acting on behalf of the states and as a partner
State Treaty of 26 July 2005 defines the framework for innovation

2010   Commencement of the pilot project "Cooperative E-Government in Federal Structures"

2015   Extension of the pilot project and agreement by the Minister Presidents on the topic of "Digital Model Region"

2017   The Rhine-Neckar metropolitan region is designated as a "Model Region for Intelligent Infrastructures" (BMWi) and host of the Digital Summit of the Federal Republic of Germany

Eine Initiative von: in Kooperation mit:

Rhine-Neckar Metropolitan Region
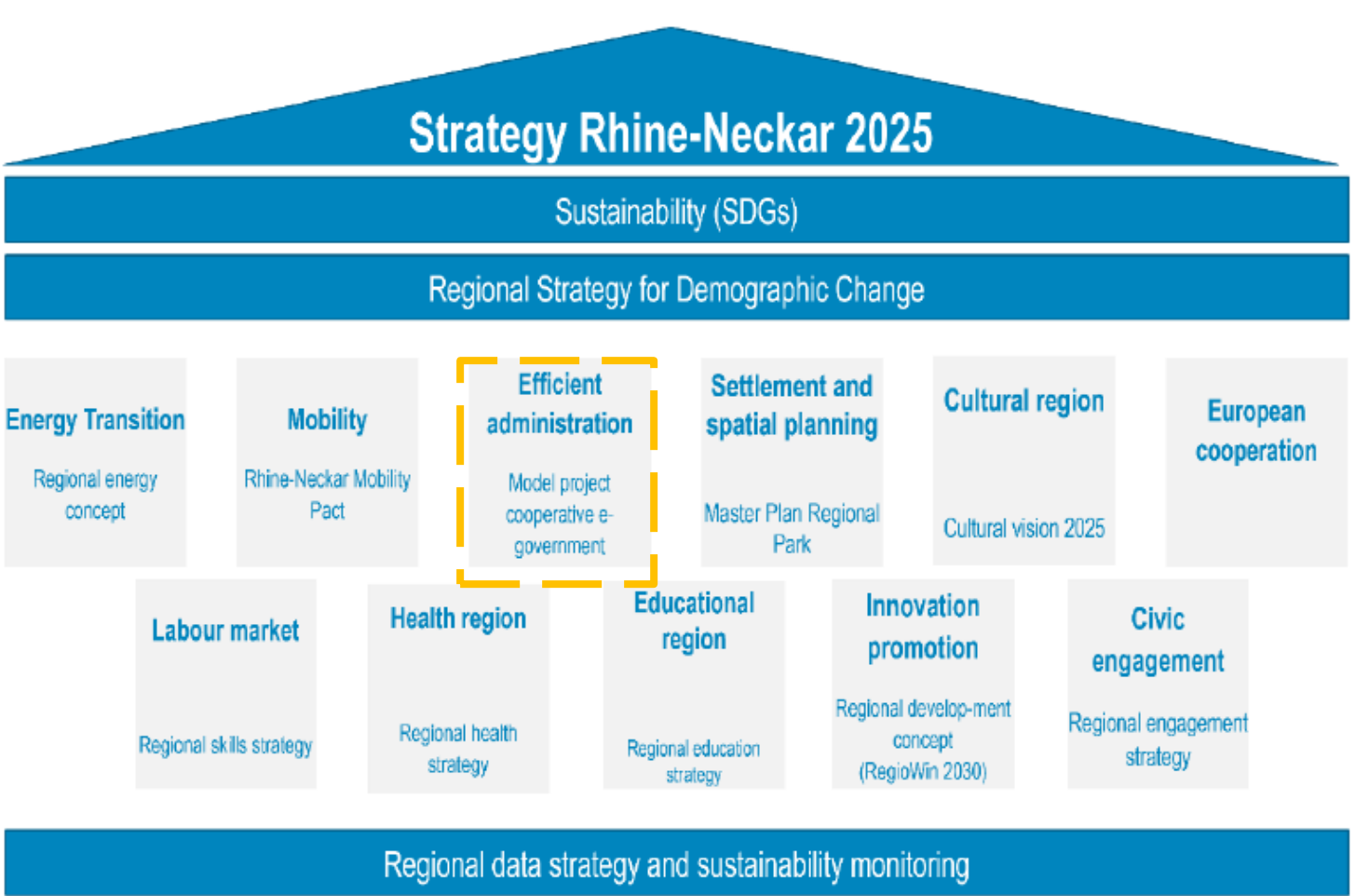
Vision and Mission

Vision

The Rhine-Neckar region provides ideal conditions for businesses, specialist workers and innovative ideas. The goal is to become **one of the most attractive and competitive regions** in Europe – progressive, committed and livable region.

Mission

Our strength comes from the unity of our forces. We are **building an alliance of strong partners across industrial, organisational and regional boundaries**. We are quick to identify economic, social and ecological challenges and collaborate to find forward-looking solutions for the region.

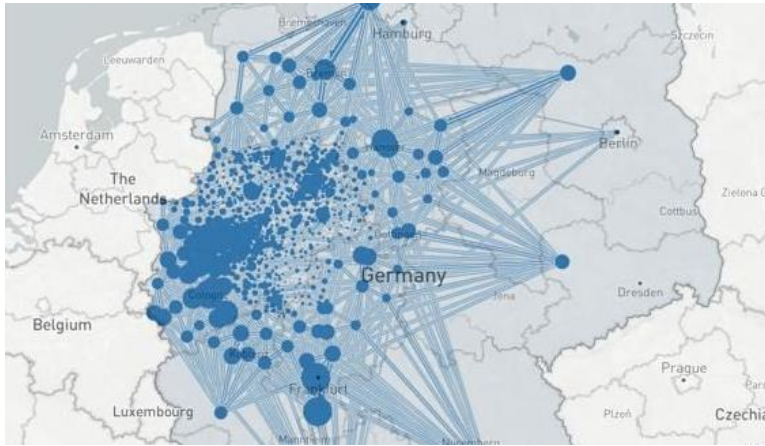# Action areas for collaborative regional development
Future-oriented and pioneering

Strategy Rhine-Neckar 2025

Sustainability (SDGs)

Regional Strategy for Demographic Change

Energy Transition

Regional energy concept

Mobility

Rhine-Neckar Mobility Pact

Efficient administration

Model project cooperative e-government

Settlement and spatial planning

Master Plan Regional Park

Cultural region

Cultural vision 2025

European cooperation

Labour market

Regional skills strategy

Health region

Regional health strategy

Educational region

Regional education strategy

Innovation promotion

Regional develop-ment concept (RegioWin 2030)

Civic engagement

Regional engagement strategy

Regional data strategy and sustainability monitoring

Digital Infrastructure and Data

Regional ecosystem for digital infrastructure and data

Data Dashboard

- Visualization of mobility routes and driving behavior
- Utilization of Parking Garages
- Real Time Traffic

Regional Data Space

- Evidence-based decision-making
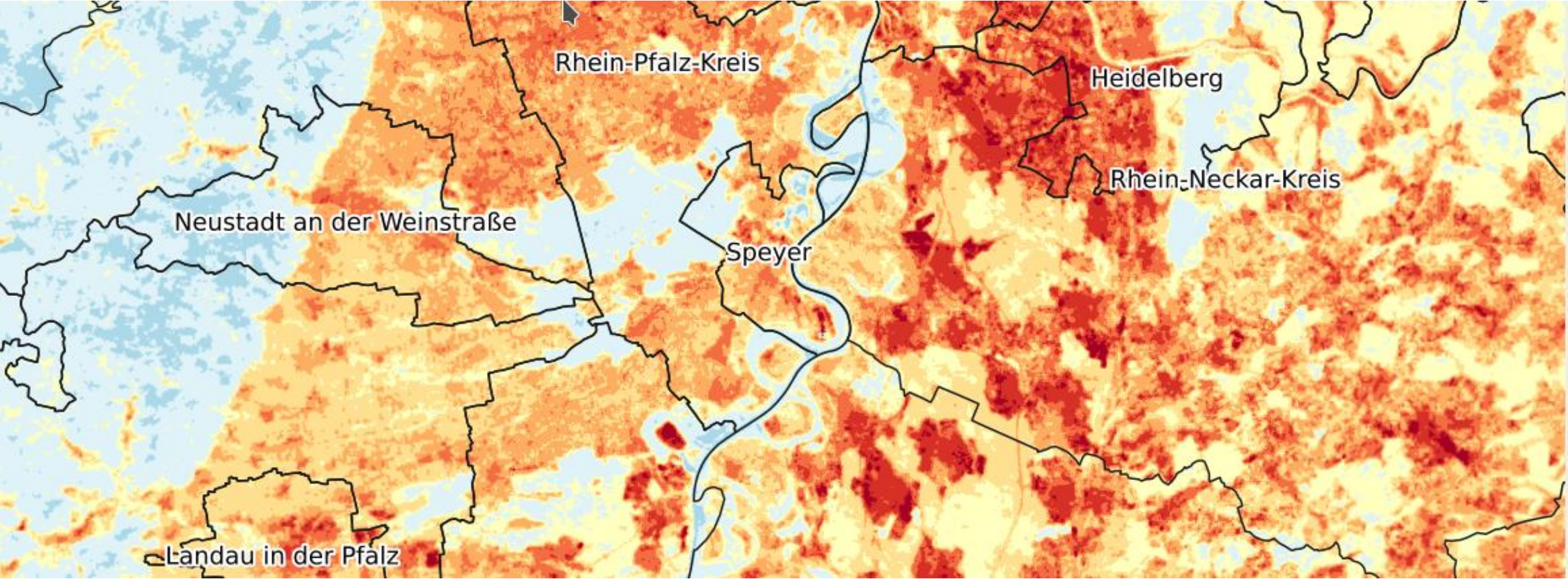- Added value for the economy, administration, and citizens

SDG-Monitoring

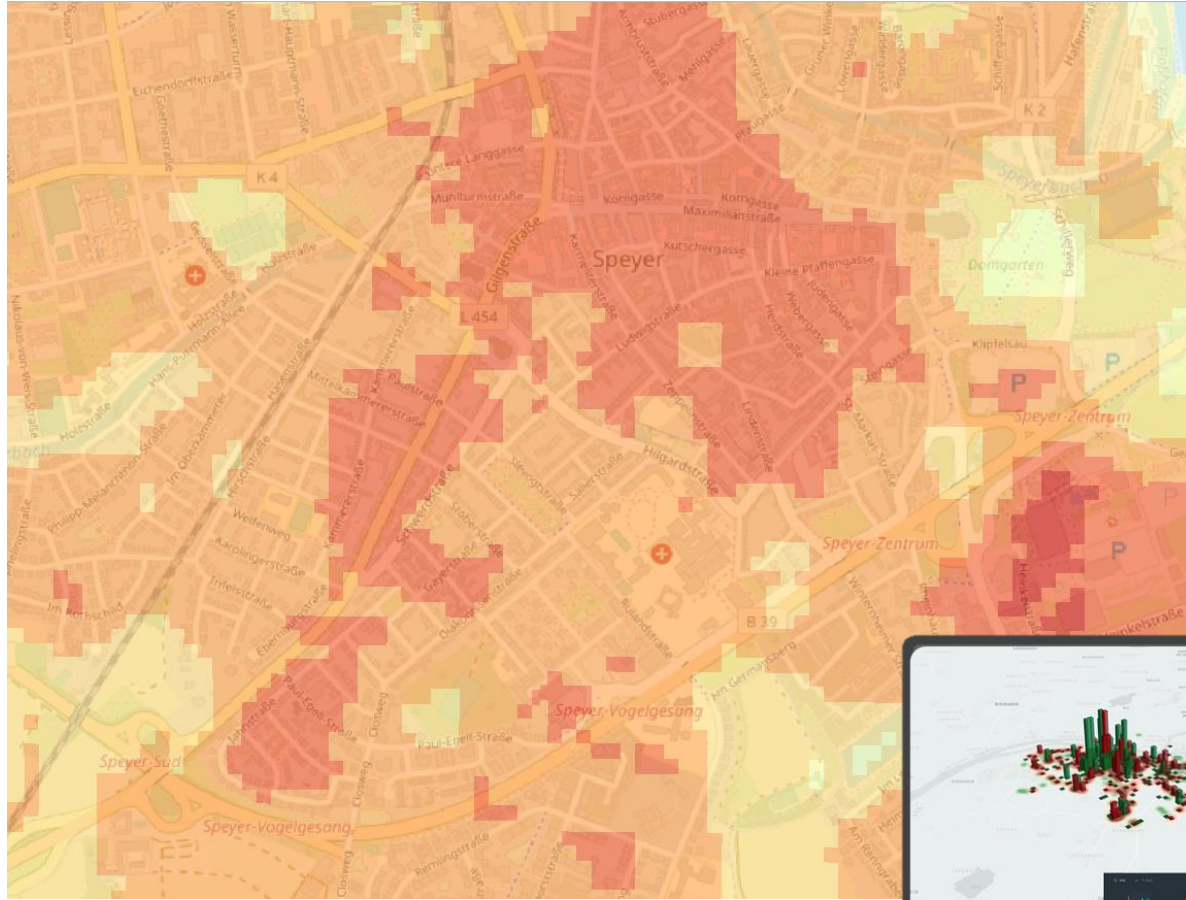- Dashboard for the 17 SDGs
- Focus on regional planning and development

Regional ecosystem for digital infrastructure and data
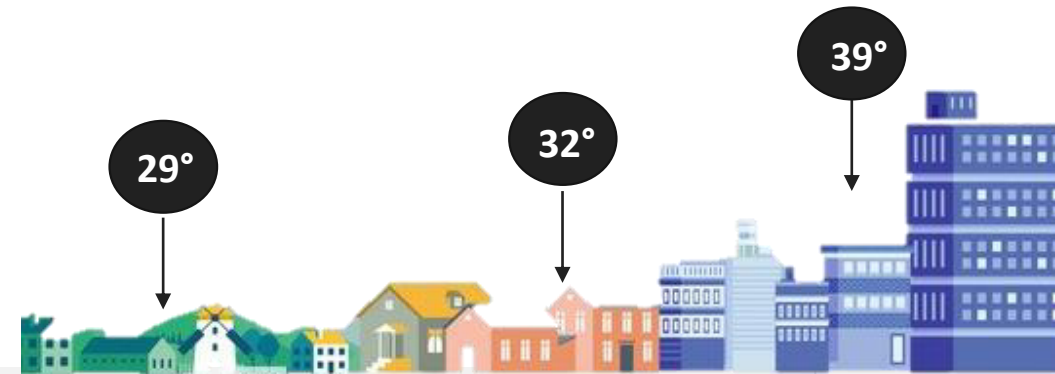## Urban Heat Islands in Rhine-Neckar

Regional ecosystem for digital infrastructure and data
Urban Heat Islands in Rhine-Neckar

- Regional data for climate change adaptation
- Targeted measures to mitigate urban heat islands in the Rhine-Neckar region
- Improving quality of life for 2+ million residents
- Creating sustainable cities of the future for a resilient and livable region
- Transformation of spaces and areas (e.g. green spaces and places)

Empowering regional development through digital transformation

The Path to the Great Transformation –
Framework for Smart Cities / Smart Regions

Transformation trilogy encompasses digital, economic and ecological transformation
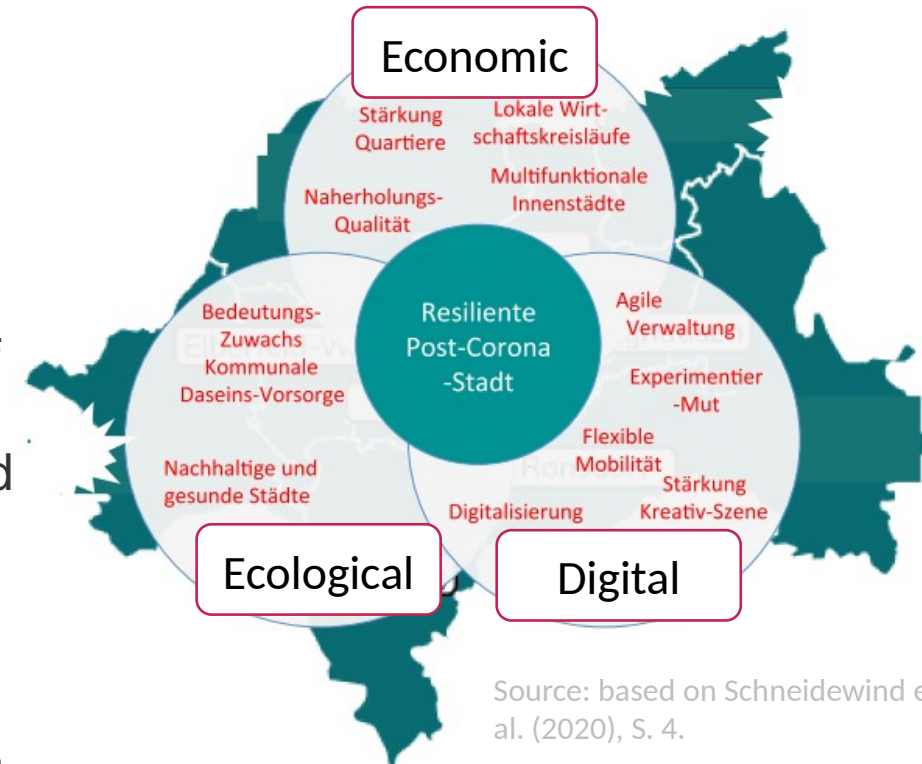
Digital transformation as an impulse to change processes, structures and control logics.

However, the main report of the German Advisory Council of the Federal Government (WBGU) **"Our Common Digital Future" (2019)** calls for digital transformations to be aligned with the goal of sustainability

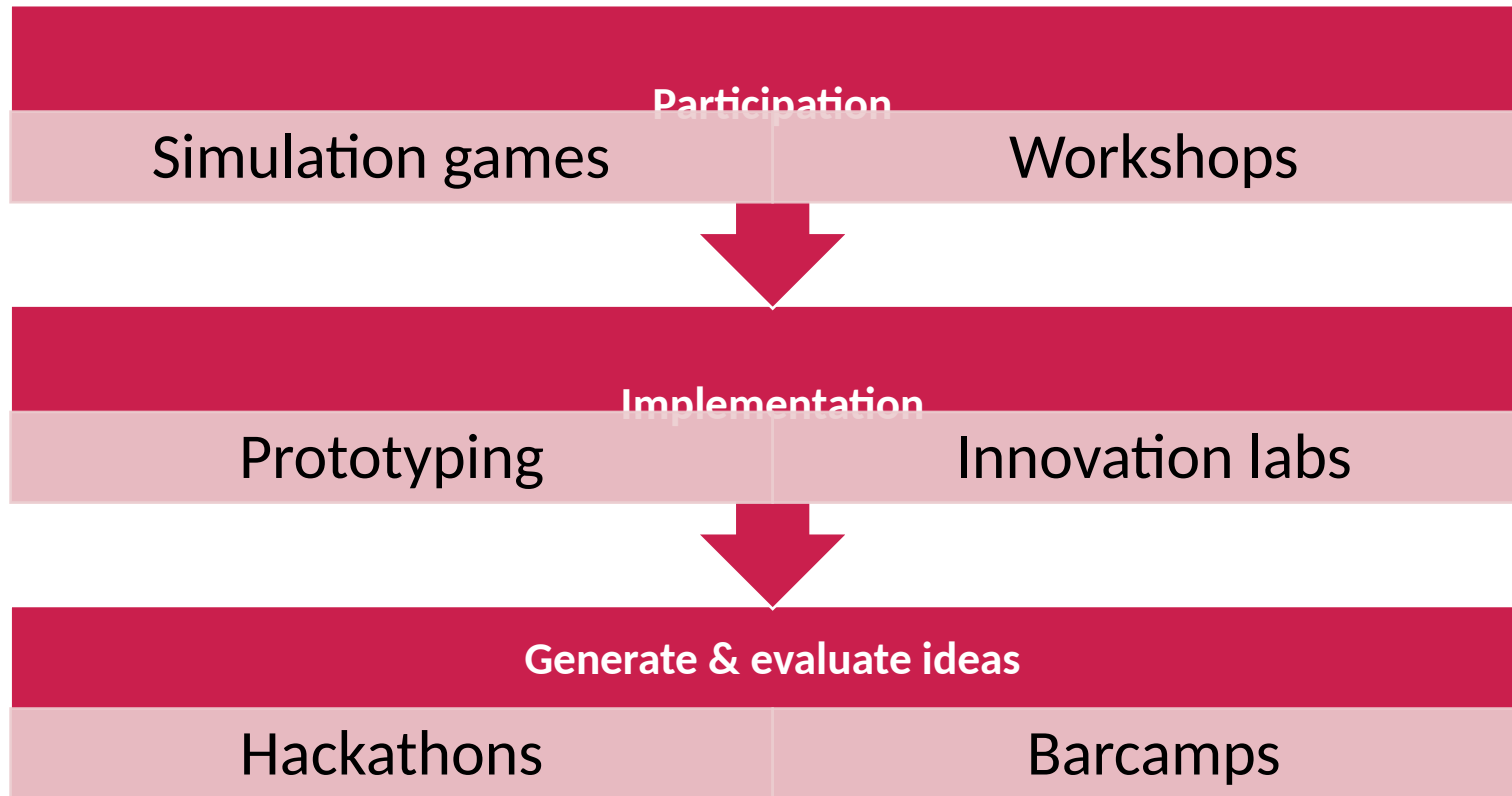Sustainable digital transformation **follows the ideal of the common good** over available technologies
Socially equitable **access to digital services** and disclosure of all components
1. Networked software development of municipal IT departments against the **operating model of the platform economy**

Source: based on Schneidewind et al. (2020), S. 4.

Step 1:
Create participation concepts for co-creation and be permanently approachable

Participation

| Simulation games | Workshops |

Implementation

| Prototyping | Innovation labs |

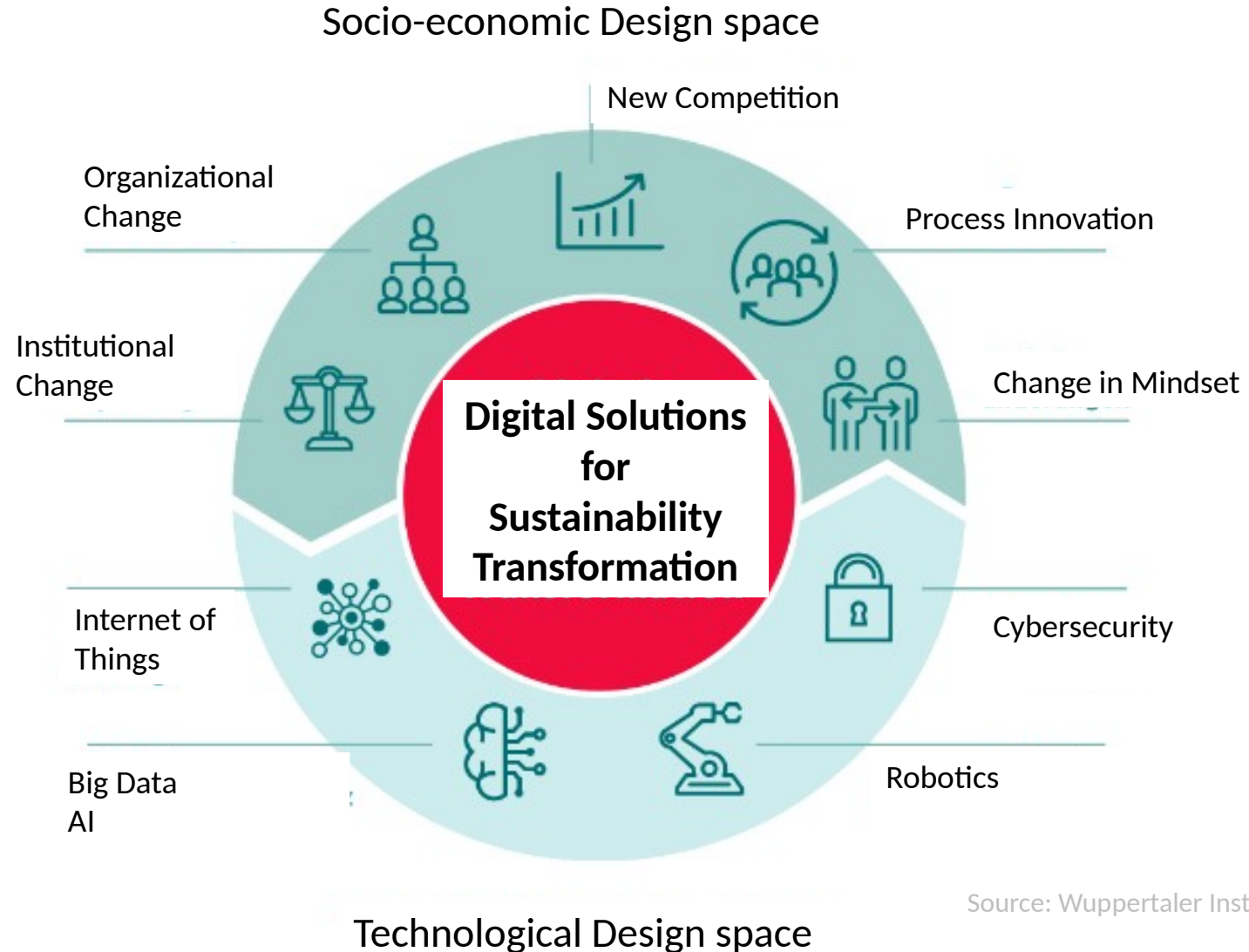**Generate & evaluate ideas**

| Hackathons | Barcamps |

The **collaboration of local authorities**, **companies** from different industries **and non-profit organizations** of general interest can succeed in agile projects with a **cross-sectional character**!

Source: Own Diagram according to MRN (2021)

Fields of Transformation:
e.g. Intelligent Mobility
Transition,
i.e. abandonment of
motorised private transport
in favour of
Timodality; "**Smart
Mobility**" (DStGB 2018, p. 8)
has not yet arrived

**Energy transition
Digital control systems** for
renewable energies can be
distributed according to
demand.
**Digitally Controlled
Supply Structures** for
Sustainable Spatial
Development

Socio-economic Design space

New Competition

Organizational
Change

Process Innovation

Institutional
Change

**Digital Solutions
for
Sustainability
Transformation**

Change in Mindset

Internet of
Things

Cybersecurity

Big Data
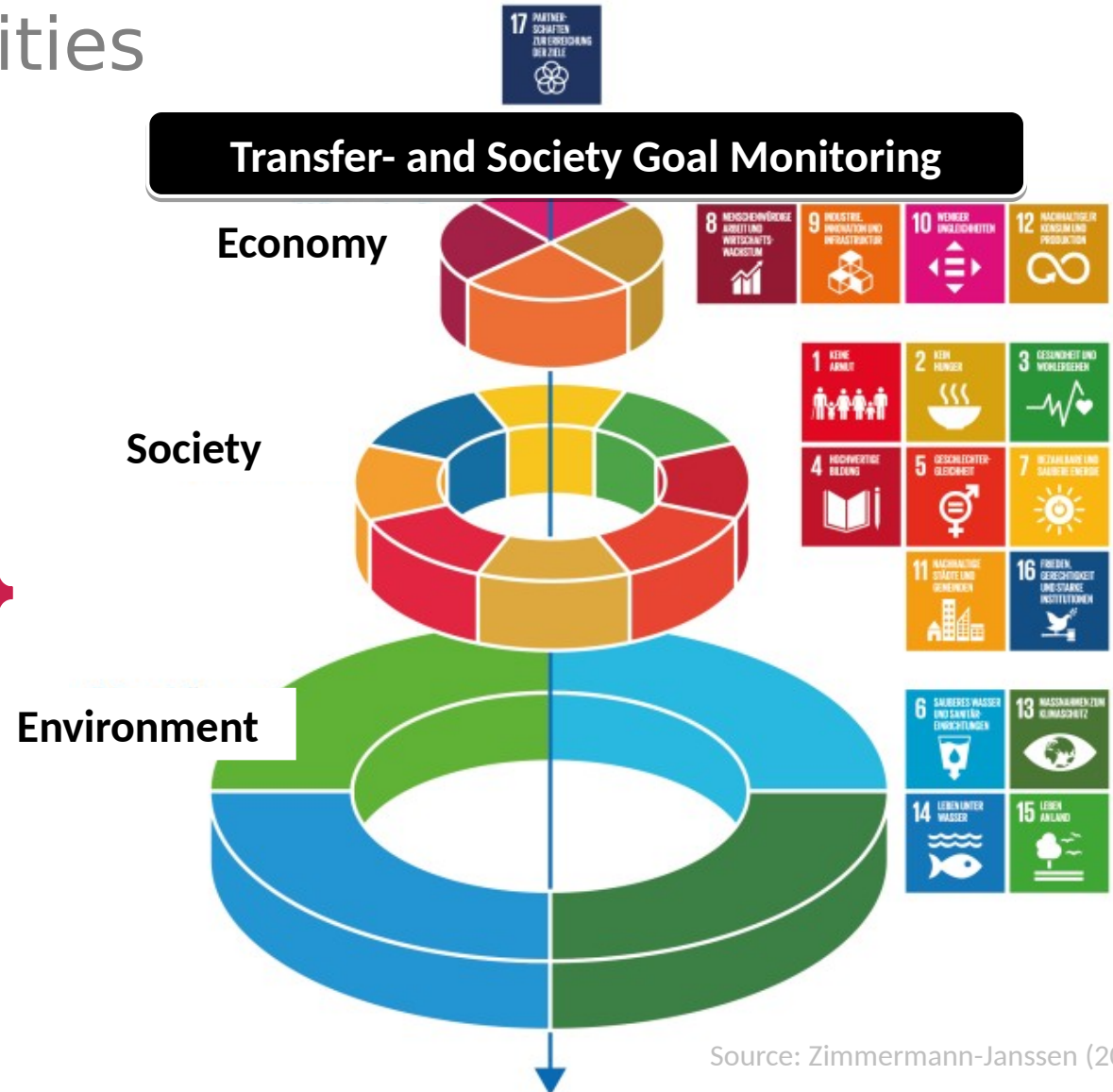AI

Robotics

Technological Design space

17

Step 3:
Establish governance - map goal descriptions, synergies, causalities

Digital Agenda Monitoring

- EGovernment
- Ict-Management
- Digital Urban Development (GIS, Digital Twin)
- Open Government
- Digital Business Use Cases (Investments)
- Digital Incubators
- Co-Creation und Innovation Labs
- Citizen Science Surveys und Service Level Surveys
- **...Training and enabeling for employee and culture development**

Instruments, Methods, Tooling

Transfer- and Society Goal Monitoring

Economy

Society

Environment

Source: Zimmermann-Janssen (2021)

A Territorial Approach to the SDGs in Rhine-Neckar
Published on January 23, 2023

RHINE-NECKAR, GERMANY

A Territorial Approach to the Sustainable Development Goals in Rhine-Neckar, Germany

OECD

- This report offers guidance on how the metropolitan region could use the SDGs as an integrated framework

- Rhine-Neckar is grappling with several challenges

- These include for example: an ageing population, the impacts of digitalisation on the labour market, climate change, territorial disparities, as well as multi-level governance challenges related to its cross-state structure

- Rhine-Neckar performs better than the average of OECD regions on the SDGs related to health, unemployment, research and disposable income levels…

A Territorial Approach to the SDGs in Rhine-Neckar

Key policy recommendations

Use the SDGs to **strengthen policies** that address the main challenges affecting the Rhine-Neckar Metropolitan Region

Set up a sustainable development platform for **private sector** actors from the region to promote the exchange of knowledge and good practices on the SDGs and facilitate their uptake among companies, including SMEs

Create a **holistic strategy** for the implementation of the SDGs in the metropolitan region

Establish a **civil society** forum for sustainable development in the Rhine-Neckar Metropolitan Region

Further develop Rhine-Neckar Metropolitan Atlas by including the interactive **SDG dashboard** with an integrated indicator framework
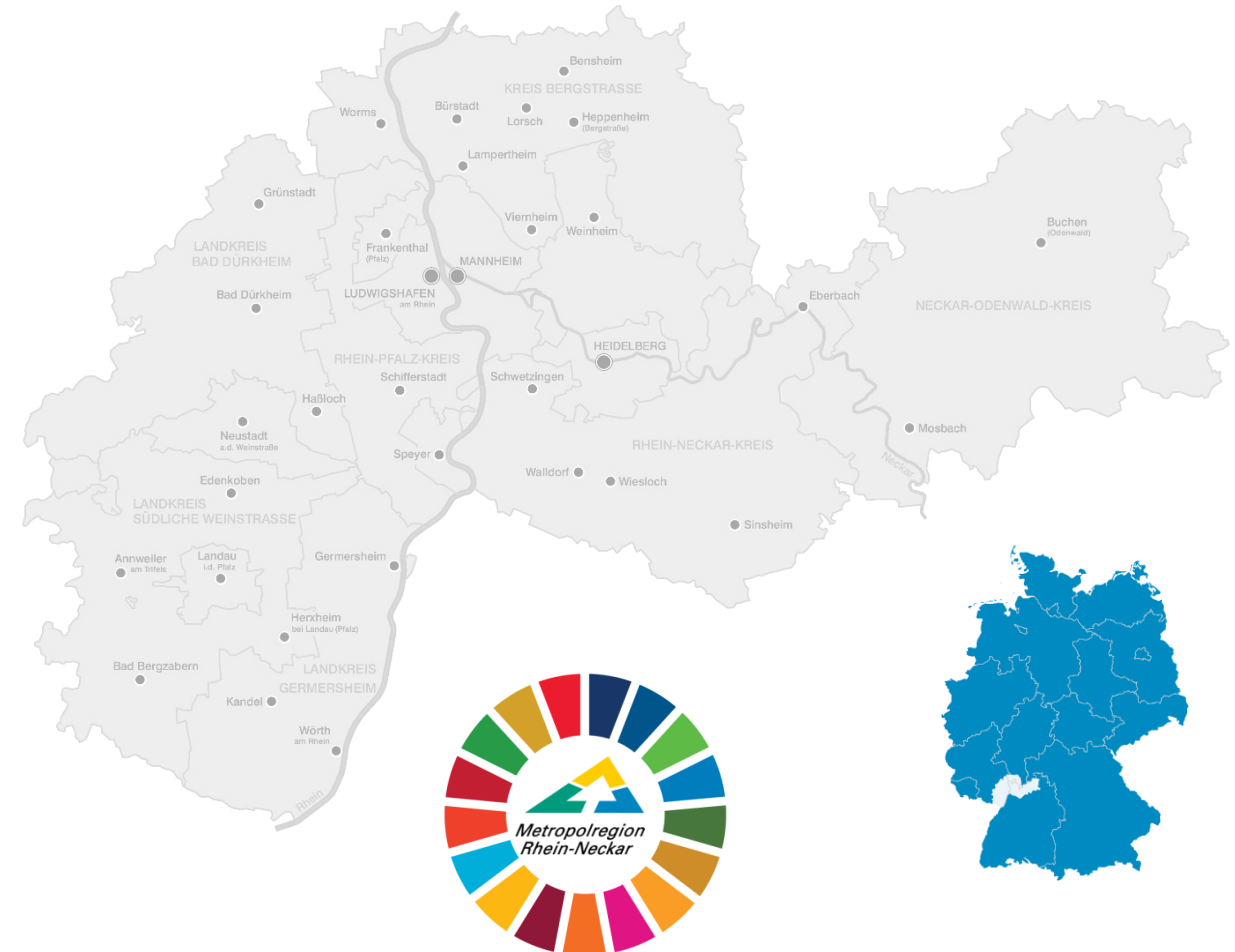
Guide municipalities on how to integrate the SDGs **in budgeting processes** at the municipal level and incentivize sustainable public procurement (SPP) by identifying SPP guidelines and showcasing good practices

Strengthen co-ordination between the Rhine-Neckar Metropolitan Region and the three federal states on sustainable development policies and the SDGs implementation, incl. on funding

Leverage the SDGs to address **regional disparities** across the Rhine-Neckar Metropolitan Region

Quelle: OECD (2023): "A territorial approach to the SDGs in Rhine-Neckar https://doi.org/10.1787/7705cc09-en.

A Territorial Approach to the SDGs in Rhine-Neckar

Multi-level governance challenges in Rhine-Neckar

- Metropolitan region plays a **co-ordinating role** for various SDG-related activities with municipalities and districts from Rhine-Neckar and beyond

- **No formal mechanism** between the metropolitan region and federal states on sustainable development

- Implementation of regional development strategy hampered by the obstacles to spend state-level **funding across** entire metropolitan region

Marvin Baldauf

Tel. +49 621 / 107 08 302

marvin.baldauf@m-r-n.com

Prof. Dr. Christian Schachtner

Tel. +49 61 194952337

christian.schachtner@hs-rm.de