

# THE GERMAN LIVING LAB LANDSCAPE – CONTOURS AND PROSPECTS

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# Overview

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- Background
- The Living Lab landscape in Germany
- Living Labs as key elements in a Green Economy – the INNOLAB project
- What prospects for the Living Lab landscape in Germany, Europe and beyond?

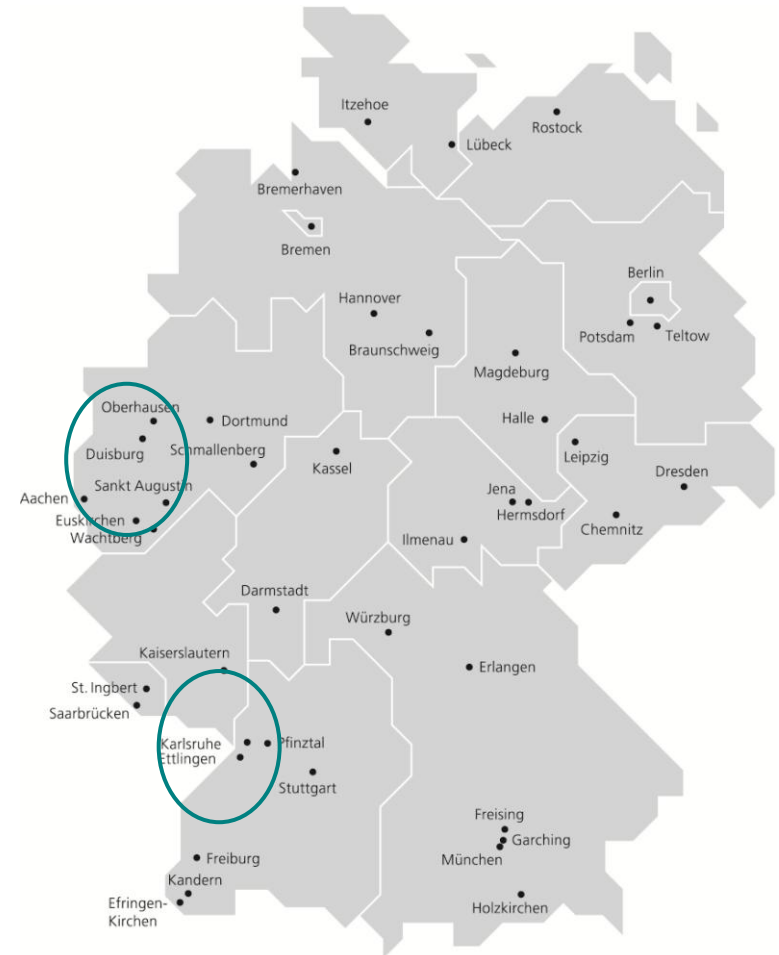
# The Fraunhofer-Gesellschaft in Germany

The leading organization for applied research in Europe.

80 Research institutions, 66 Institutes

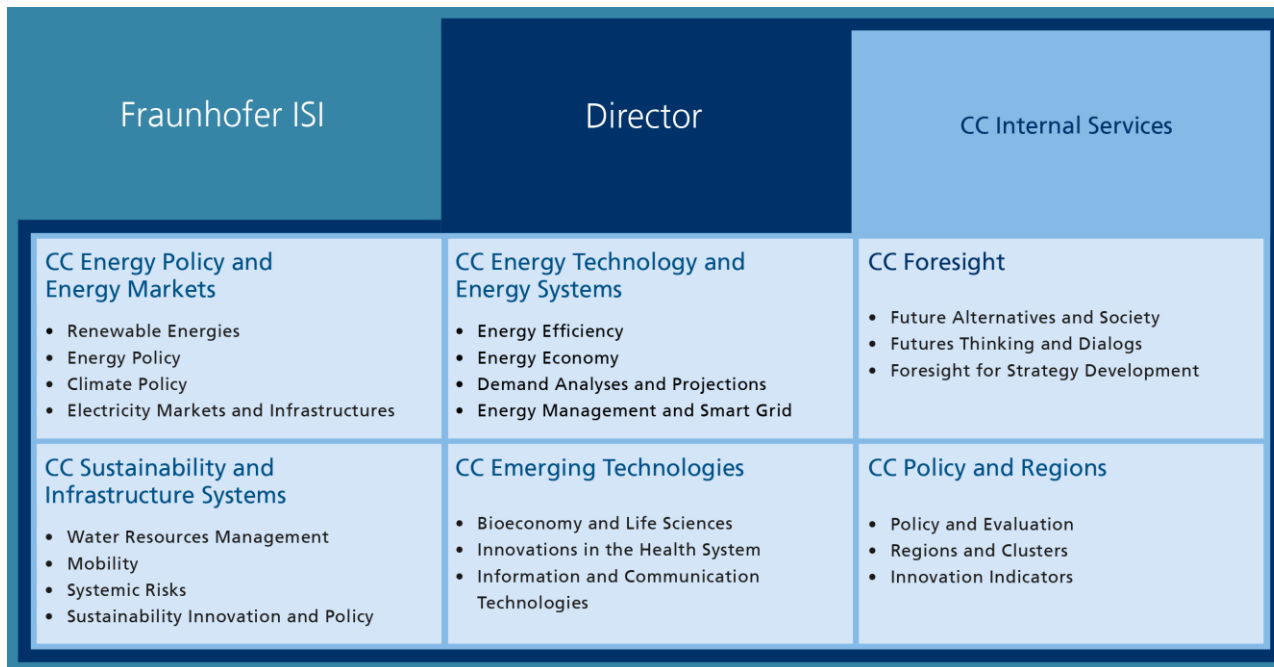
among them:

- Fraunhofer inHaus, Duisburg
- Fraunhofer ISI, Karlsruhe



# The Fraunhofer Institute for Systems and Innovation Research ISI

- studies **innovations** - their emergence, success factors, potentials and limits
- helps industry, science, politics and society in **strategy development**
- handles **370 research projects** per year, budget of approx. **€ 23 million**



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# Background: Living Labs in Germany

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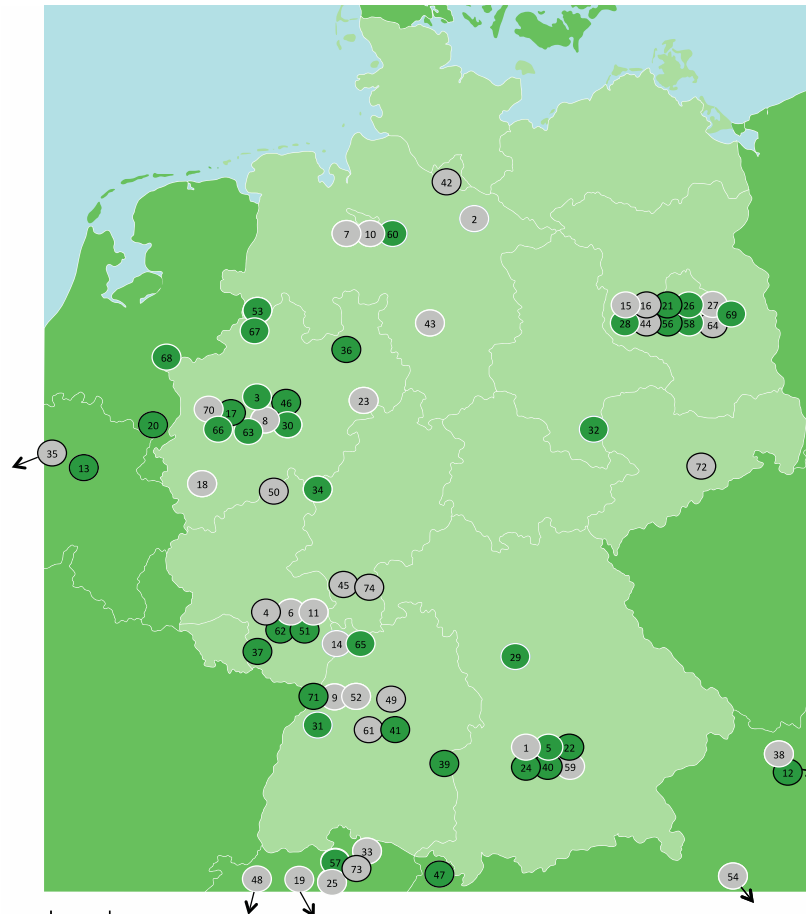
## Exploration 1:

- BMBF research programm *Innovation and Technology Analysis* (ITA): project „Sustainability Innovations in the Living Lab“
- OA Article: Geibler, v. J.; Erdmann, L.; et al. (2014): Exploring the potential of a German Living Lab research infrastructure for the development of low resource products and services. In: *Resources* 3(3) 575-598; doi:10.3390/resources3030575

## Exploration 2:

- German pioneer role towards a Green Economy (BMBF, BMUB, BMWi, BDI)
- BMBF framework program *Research for Sustainable Development* (FONA): support R&D projects to promote transformation processes towards a Green Economy
- INNOLAB project: demonstration of potential and roadmapping

# Living Labs in Germany and neighbouring countries



Legend:

- Explicit consideration of sustainability
- Connection to sustainability only implicit, unclear or not present
- High degree of institutionalisation

The numbers specify the Living Labs, see appendix for their names and research fields. Arrows indicate a location outside the map.

## Characteristics:

- many fixed-term projects
- regional clusters: Ruhr, Southwest, Munich, Berlin
- no networking among Living Labs in most cases
- themes: ICT, AAL, smart home, work environment, infrastructure

## Assessment:

- scant information on „closed“ labs
- data of 2012
- living labs, reality labs and model regions emerged and vanished
- untapped sustainability potentials: user acceptance / rebound effects

# SWOT of the German R&I system for the development of Sustainability Living Labs

	Strengths	Weaknesses
→	<ul style="list-style-type: none"> <li>• <b>Sustainability</b> relevant and legitimate in Germany, but detached from LL community</li> <li>• Existing Living Labs are <b>complementary</b> to the technology-focused research landscape</li> <li>• Existing <b>regional clusters</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Lack of capacity:</b> Systems design and mediation capacities underdeveloped</li> <li>• experimental research does <b>not necessarily</b> yield <b>commercially viable products</b> in the short-term.</li> </ul>
	Opportunities	Threats
→	<ul style="list-style-type: none"> <li>• Realization of <b>efficiency potentials under consideration of rebound effects</b> on the micro-scale</li> <li>• Potential to <b>connect different strands of research</b>, capacity development at universities</li> <li>• <b>Linking up to existing international networks of Living Lab</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Short-term thinking</b> in business strategies</li> <li>• <b>Data security issues</b> due to sensitivity of data on consumption and behavioral patterns</li> <li>• <b>Incompatibility of micro-data with macro-data on the societal system</b> if data interfaces and assessment conventions are not defined</li> </ul>

Source:  
von Geibler, Erdmann et al. 2014

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# INNOLAB – Living Labs in the Green Economy: Real-world Innovation for User-Integration and Sustainability

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## Core partners



**Project duration:** 36 Months (02.03.2015 – 28.2.2018)

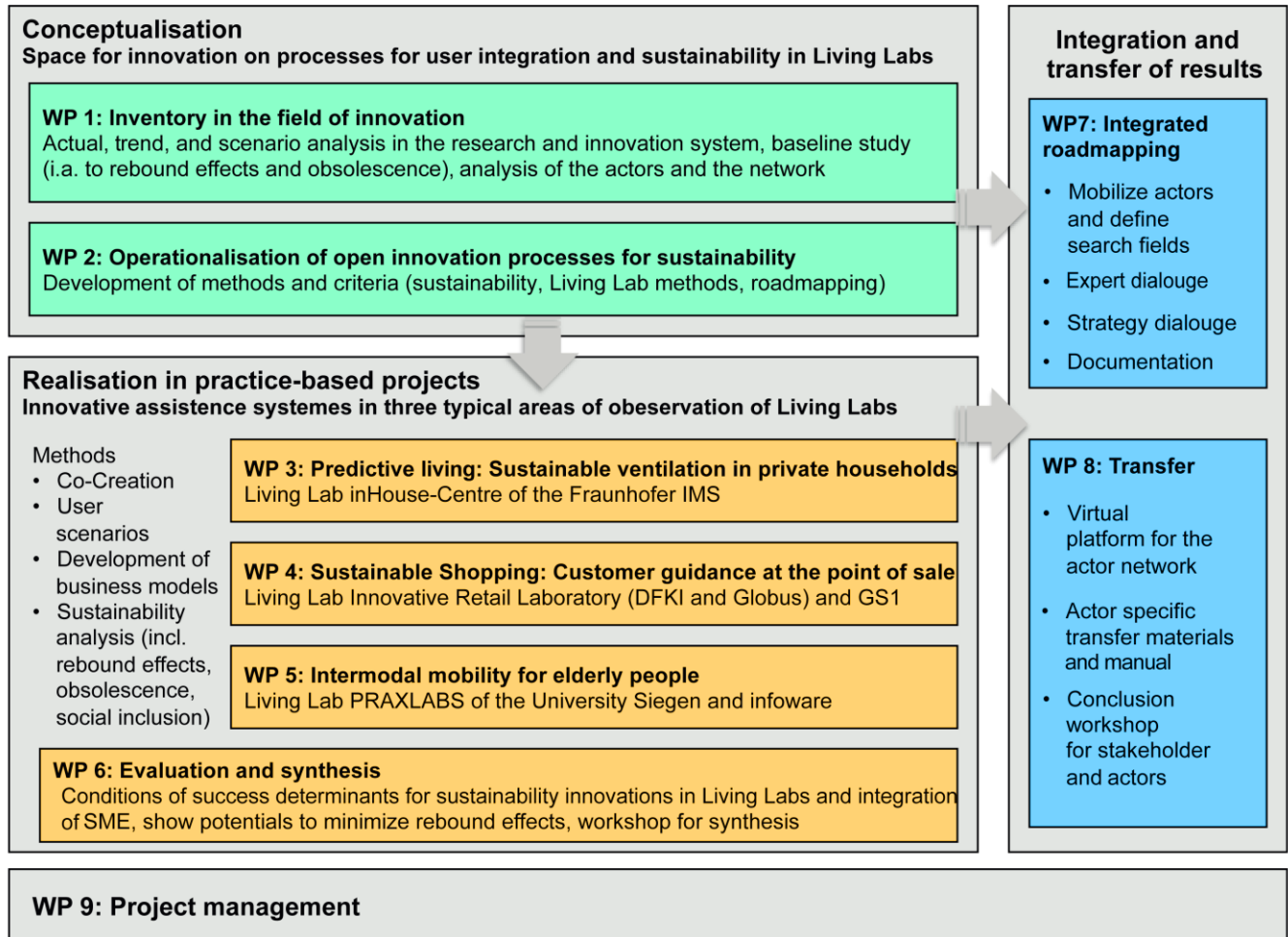
**Total budget:** 1,34 Million Euros (external funding: 1,12 Million Euros)

## Goals:

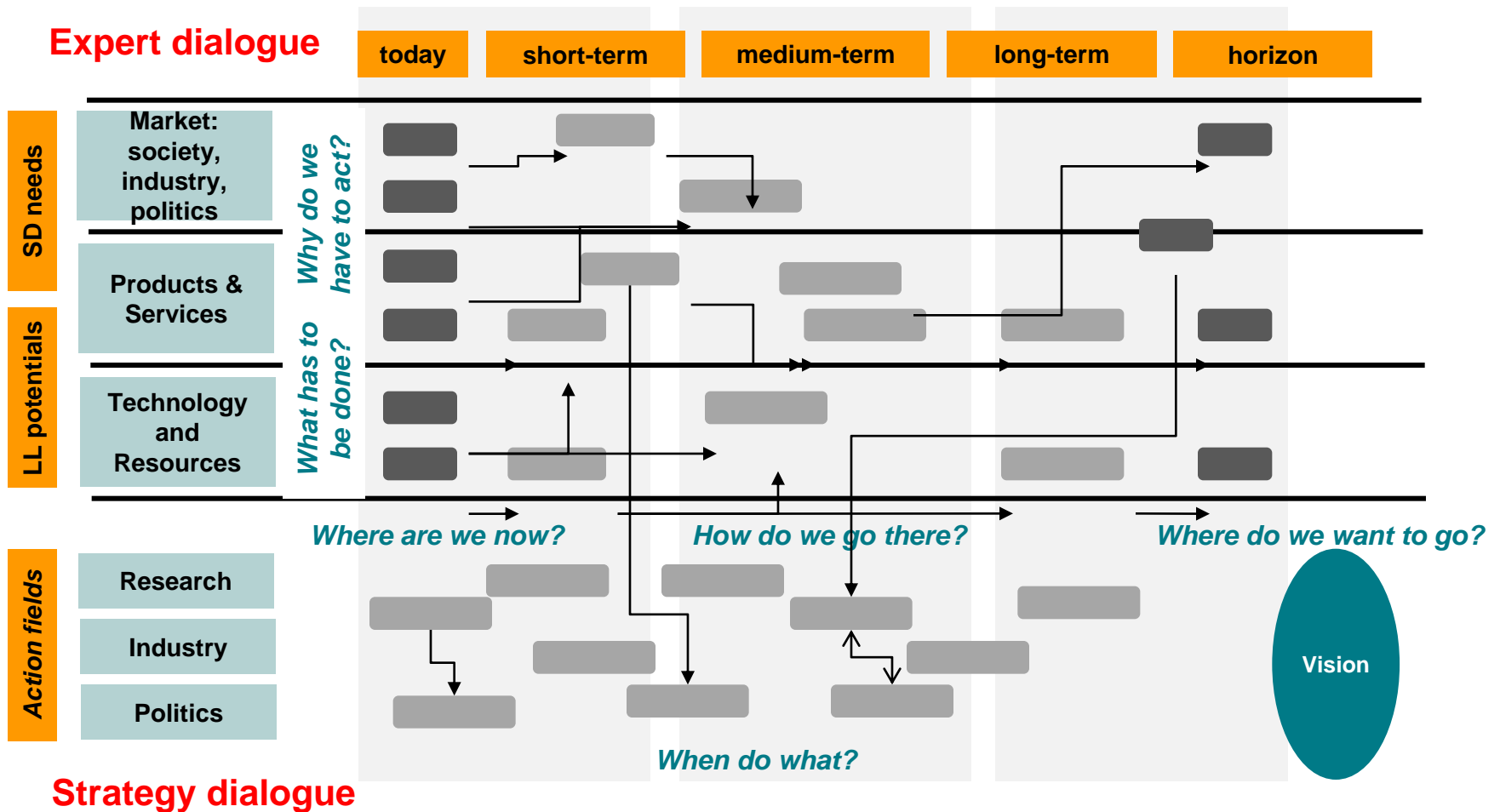
- **Developing a method** for user integration and sustainability innovation in real-world laboratories, e.g. concerning rebound effects and obsolescence
- **Demonstrating the performance** of Living Labs through the study of sustainability innovations in the field of assistance systems and their diffusion in the key areas of sustainable consumption “living”, “retail” and “mobility”
- **Strengthening of the Living Lab concept** in the research and innovation system of a Green Economy **by means of Roadmapping** integrating knowledge and actors
- **Extending the national and international network and transfer:** connect LL and SD



# INNOLAB – Project plan



# Roadmapping in INNOLAB



# Prospects of the Living Lab landscape in Germany, Europe and beyond- Action fields

- 1) Science 2.0/Open Innovation 2.0:  
LL as nodes in open, collaborative and ICT-driven R&I
- 2) New R&I practices: LL as providers of a method portfolio for a diversifying R&I context
- 3) LL as physical platforms for societal exchange between research&innovation, production&consumption
- 4) LL as intermediaries in the R&I ecosystem
- 5) Sustainable design: LL giving innovation a direction
- 6) LL as a means to foster diffusion of sustainable innovations
- 7) Reindustrialisation: LL to promote entrepreneurship and SME's ability to innovate
- 8) LL as a „sector“ - numbers, networks and impacts of LL
- 9) R&I policy: LL explicitly anchored in the R&I system
- 10) Market and structural policies: LL as levers for the regional economy and for a new type of public market research

**German Green  
Economy  
Living Labs**

**German Living  
Labs engage in  
ENOLL**

**Living Labs  
with fluid  
contours**

**today**

**2030**

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# Thank you for your attention!

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