Where do we stand?

The Innovation Center for Agricultural System Transformation (IAT) launched on January 1, 2026, and is currently in its two-year start-up phase.

What makes the IAT unique?

The IAT's Mission – Combining Research & Collaborative Design
The Innovation Center for Agricultural System Transformation (IAT) is a scientific institution of ZALF dedicated to exploring how innovations can contribute to the sustainable transformation of agricultural and food systems — particularly through new forms of collaboration between science, practice, and society more broadly.

The IAT sees itself as a bridge between research and practice, as a catalyst for innovation in the living lab regions, and as a hub for the scientific advancement of transdisciplinary methods. It not only conducts research on transformation processes but also helps shape them through its research.

Role of the IAT
The IAT **serves as a scientific partner** in the development, testing, validation, evaluation, and scaling of innovations in agriculture and the creation of value chains for them. It contributes scientifically grounded knowledge to this process, fosters opportunities for reflection, and ensures connectivity across various disciplines. Specifically, this entails:

- The IAT **uses living labs (LLs) as its primary research method. The** LLS provide a framework for transdisciplinary collaboration at eye level— with the goal of addressing regional challenges in a scientifically sound and practical manner.

- The IAT **supports the development, testing, validation, evaluation, and scaling of context-specific solutions for key transformation challenges** such as biodiversity loss, soil erosion, or climate change, and links these to scientific analysis, reflection, and evaluation.

- The IAT **creates spaces to experiment** where new technical, social, or organizational solutions can be tested, adapted, and further developed — with the aim of increasing their suitability for real-world needs and fully realizing their potential to support societal transformation processes. The IAT views innovation as a learning-oriented, iterative process in which failure is permitted and is part of a shared learning process.

Who we are?

The IAT is currently headed by Prof. Dr. Bettina Matzdorf and Prof. Dr. Katharina Helming.

The central point of contact for the IAT is the Coordination Office. The Coordination Office is home to the network managers, each of whom coordinates the work on-site at one of the five IAT real-world labs.

IAT-Leadership

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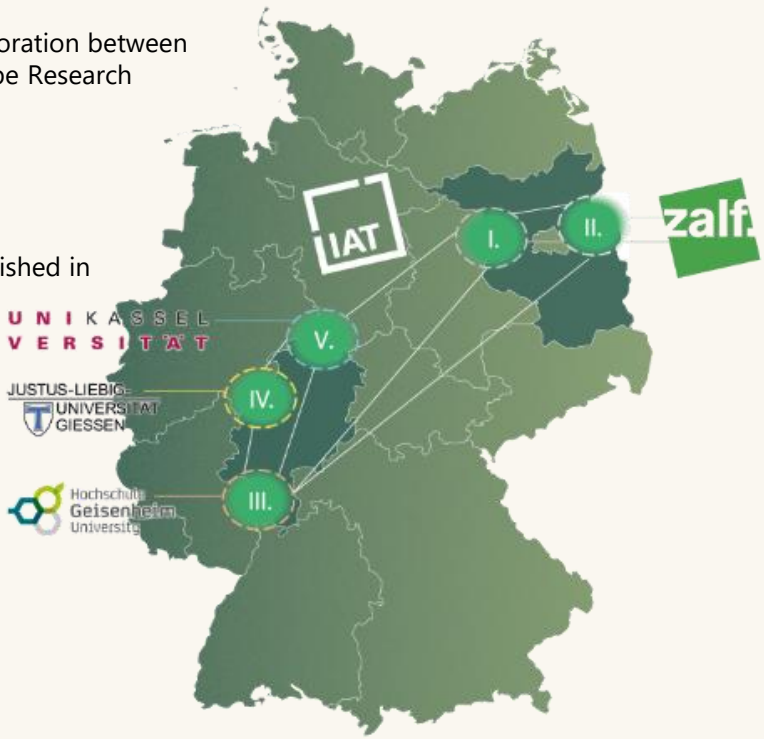
Our Partners and Locations

A distinctive feature of the IAT is the collaboration between the Leibniz Centre for Agricultural Landscape Research (ZALF) and three universities in Hesse:
Justus Liebig University Giessen,
the University of Kassel, and
Geisenheim University.

Three new ZALF campuses are being established in Geisenheim, Giessen, and Witzenhausen, where the ZALF will work in close Cooperation with the universities



Working groups in development

UNIKASSEL VERSITÄT

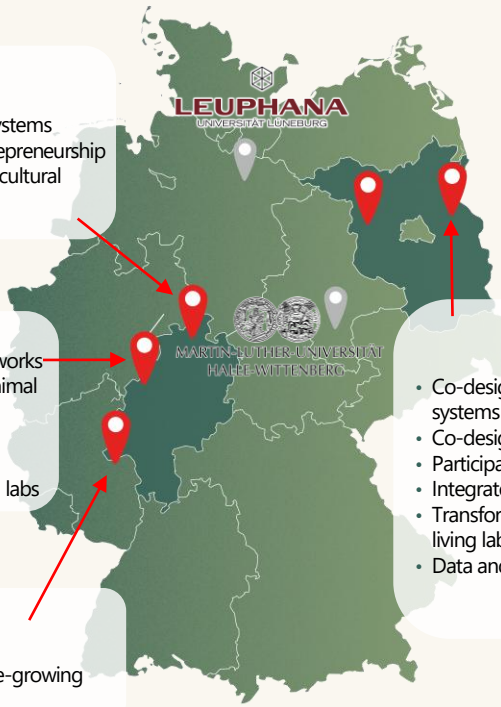
- Co-designed organic horticulture
- Co-designed animal based mixed culture systems
- Co-design of strategies for sustainable entrepreneurship
- Success factors for living lab research in agricultural systems

JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN

- Co-designed resilient agricultural value networks
- Participatory sustainability assessment of animal husbandry
- Mobile agri-environmental sensors
- AI-based quality ensurance and analysis of monitoring and experimental data for living labs

Hochschule Geisenheim University

- Co-designed mixed viticulture systems
- Co-designed nature-based solutions in wine-growing landscapes



zalf Leibniz-Zentrum für Agrarlandschaftsforschung (ZALF) e.V.

- Co-designed agroecological crop and grassland systems
- Co-designed value networks for new products
- Participatory resilience assessment of farming systems
- Integrated impact assessment modelling for living labs
- Transformation analysis for regional agricultural living labs
- Data and modelling infrastructure for living labs

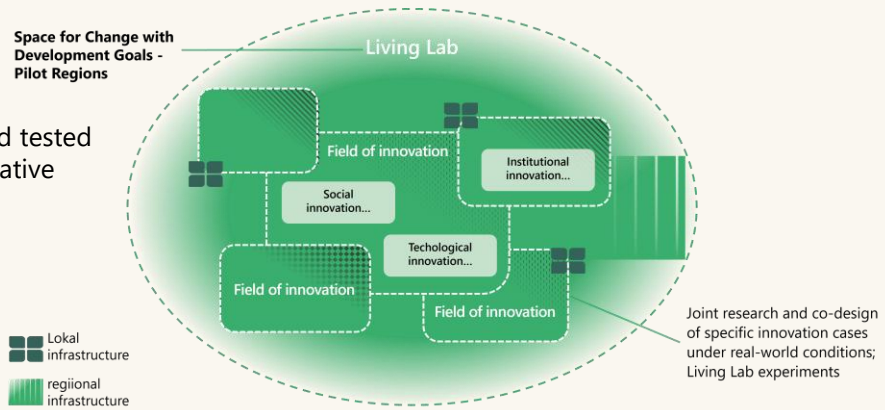
* Each a joint appointment with the IAT

The living labs

We understand living labs as experimental transformation regions — that is, regions of change organized around regional priority themes. Each has a specific thematic focus and was designed to encapsulate various natural, geographical, and socio-economic contexts as well as production systems. The living labs are intended to develop timely solutions for the transformation of agricultural systems that can also be transferred to other regions.

Research in living labs is characterized, among other things, by the fact that:

- it operates in real-world contexts (not in a laboratory),
- it takes real-world problems of societal relevance as the starting point for research activities,
- stakeholders from academia and practice meet at eye level and learn together
- solutions are developed and tested experimentally through iterative processes



Living labs under development

The IAT is based on five living lab regions in Brandenburg and Hesse. Each living lab has its own thematic focus and, associated with this, a potential vision of the future and transformation goals.

This represents a preliminary status based on the work done so far in the regions, intended to get the process underway during the development phase. The themes (focus areas) are expected to evolve over the course of the co-design processes.

Living Lab Havelland – Climate protection and grassland use in fenland regions

Future objective: Coordinated development of climate-resilient grassland systems and the establishment of new land-use options.

location:
Havelland county

(potential) innovations:

Transdisciplinary projects / stakeholders:

FinAL – Förderung von Insekten in Agrarlandschaften; CLEAR – Collaborative Landscape planning for Enhanced Agrobiodiversity and Resilience; ARGE KLIMAMOOR; DAKIS – Digitales Wissens- und Informationssystem für die Landwirtschaft; WetNetBB – Bewirtschaftung und Biomasseverwertung von nassen Niedermooren

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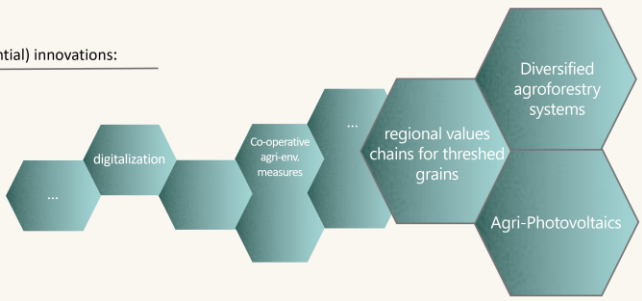
Living Lab Ost-Brandenburg – Multifunctional and diverse arable farming systems

Future objective: Work together to develop and test new approaches for resilient, economically viable agriculture in an arable farming region with challenging growing conditions.

locations:
state of Brandenburg, Märkisch-Oderland & Oder-Spree counties

(potential) innovations:



Transdisciplinary projects / stakeholders:

patchCROP; AgroScapeLab; SynAgri-PV; DAKIS; contracts2.0

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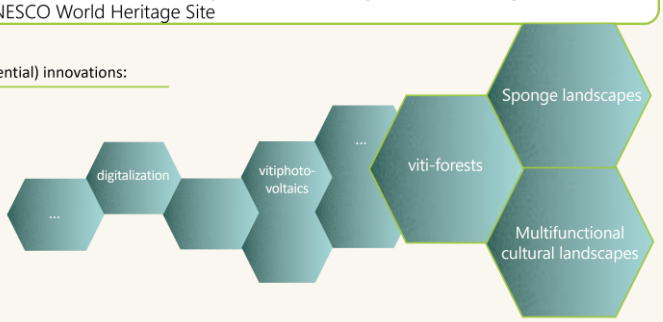
Living Lab Rheingau – Multifunctional and climate-resilient viticulture systems

Future objective: Nature-based solutions, such as mixed-cropping systems and a structurally diverse landscape, enhanced climate resilience and the economy for the common good in the Rheingau and the Upper Middle Rhine Valley UNESCO World Heritage Site

location:
Rheingau, Upper Middle Rhine Valley

(potential) innovations:



Transdisciplinary projects / stakeholders:

Viti · AMBITO · GeisTreich · KliA-Net Weinbau · WELMO · TRIO · AGRECO4CAST · EUGIFT

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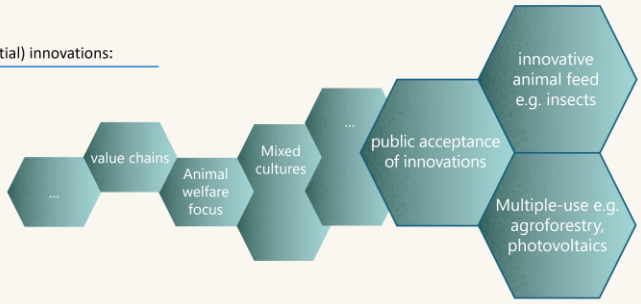
Living Lab Hessisches Mittelgebirge – integrated plant-animal agricultural systems

Future objective: Technically and economically innovative cropping systems have been developed, tested, and have proven themselves in practice

location:
Regierungsbezirk Gießen

(potential) innovations:



Transdisciplinary projects / stakeholders:

ZUKUHH · ClieNFarms · BeeContour · Klima Tier

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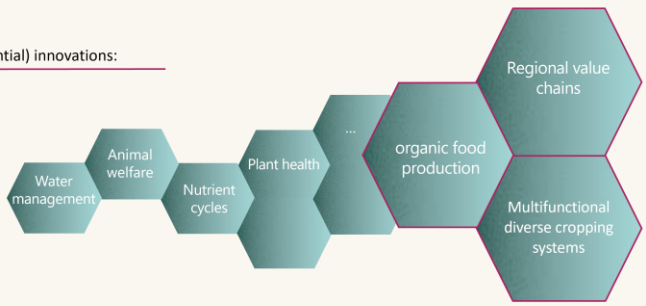
Living lab Nordhessen – Intensified organic farming

Future objective: The efficiency and productivity of organic farming in the production of animal and plant-based foods, renewable raw materials, and ecosystem services have been improved.

location:
county of Kassel
Werra-Meißner county

(potential) innovations:



Transdisciplinary projects / stakeholders:

AKLIWA · BAKWERT · TRIO · SchafLAND · BIO KLIMA GEMÜSE · ofn Praxisforschung im ökologischen Land- & Gemüsebau · TRIEBWERK

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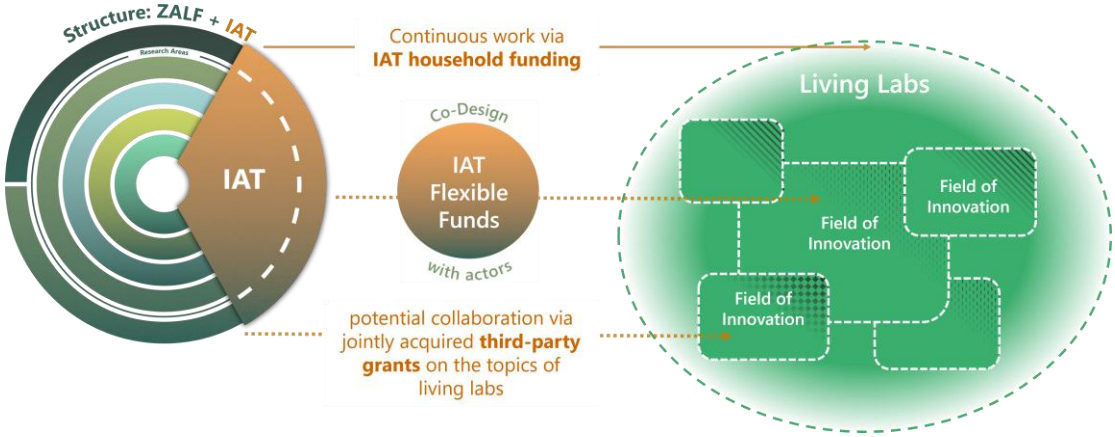
Funding and, in particular, flexible funds

In addition to the central IAT budget, IAT working groups are expected to secure external funding as a second source of financing for research on living lab topics. A distinctive feature of the IAT is the provision of flexible research funds: IAT Flex Funds. These are funds from the IAT institutional funding awarded on an annual basis to enable flexible and needs-based research in living labs. These funds are intended to ensure the timely provision of research and personnel expenses for the build-up of the five living labs and their use cases.

These IAT Flex Funds are intended to implement research projects for which no third-party funding is yet available or that cannot be carried out solely through the routine work of IAT researchers and other stakeholders. They are not meant to replace third-party funding, but rather to complement and facilitate it in a meaningful way, particularly to enable a response to practice-relevant needs. In conjunction with existing IAT offerings, they promote living lab research that often could not be realized based solely on third-party funding project logic.

Another goal is to use these IAT flexible funds to initiate further research with cooperation partners or through third-party funding, or to investigate scaling potential following the completion of projects.

Funding Options



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HESSEN

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