



Europe's food-tech Living Labs

connecting deep-tech innovation in practice

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the European Union**

Who are we?

Martin van Rooij

- Independent Innovation Advisor
- Project Lead AgriFood Capital
 - Regional ...
 - Next Tech Food Factories
 - Student ESST

Dr. Nele Jantz

- Biologist
- Technische Hochschule Ostwestfalen-Lippe:
 - Living Lab Manager at Future Food Factory OWL
 - Manager of S2B partnership smartFoodTechnologyOWL
- Fond of engaging with different stakeholders and science communication



What is food technology?

- Application of science and engineering to food production, processing, packaging, preservation, and distribution.
- Ensures food is **safe, nutritious, high-quality, and sustainable**.
- Includes areas such as:
 - Food processing and manufacturing
 - Food safety and quality control
 - Packaging technology
 - Product development and innovation
 - Sustainable food systems



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Key Facts About the European Food Industry

- SME dominated

Major trends:

- Digitalization and smart manufacturing
- Plant-based and alternative proteins
- Clean-label products (fewer additives)
- Functional and health-focused foods

Important challenges:

- Rising energy and raw material costs
- Climate change impacts on agriculture
- Supply chain resilience
- Meeting consumer demands for healthier and sustainable products



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Twin transition in agri-food sector – from shared vision to shared solutions



Concrete challenges of the food industry



Improved efficiency



Higher quality



Sustainable production & product



Better food safety

Thematic priorities – digital solutions



Sensors to monitor real-time critical control parameters



Sensor integration and implementation



Smart data management



Connectivity in food companies and in the food value chain



Human centric transformation and implementation strategy

SS4AF Strategy

SME driven
Innovation & Implementation
Cases

Direct support to SMEs (financial)

Indirect support to SMEs (via clusters)

Technology catalogue

Network of Living Labs

Stakeholder network

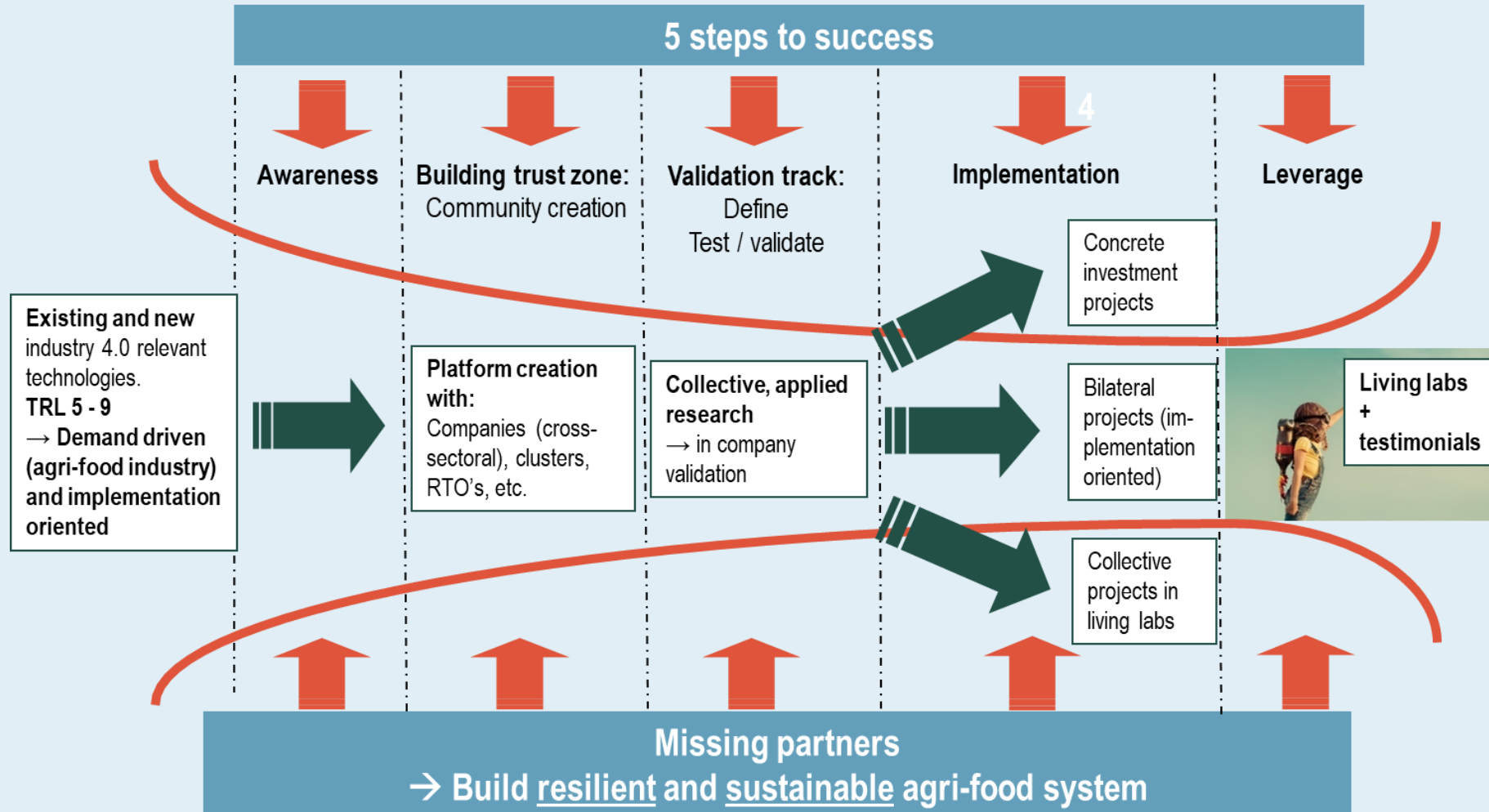
Policy & funding opportunities

Awareness, communication, dissemination



Projects

Stepwise approach to innovation



Living Labs as a bridge for innovation?

- SMEs encounter similar needs for deep tech solutions
- In most cases not all answers can be found in their own region
- Potential solutions are available across Europe that now might go undetected
- Several of the challenges are too big to solve alone.



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Future Food Factory OWL



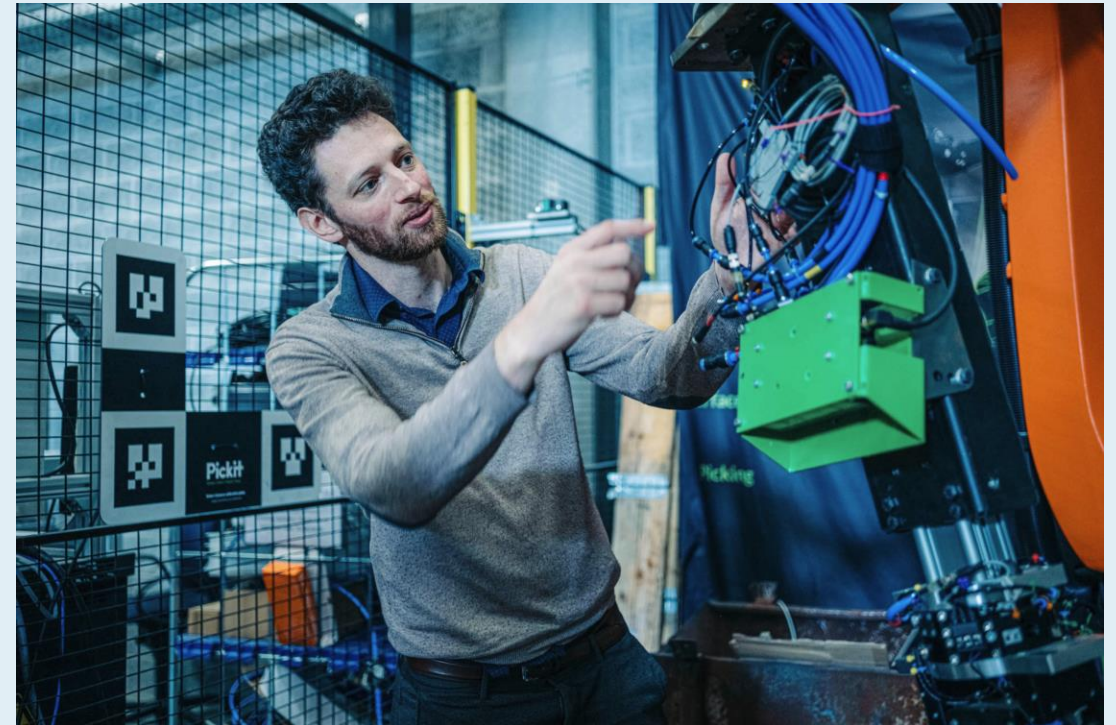
- University hosted LL
- Equipment largely bought by and used for publicly funded R&D projects
- Scope: largely food technology with inclusion of digitalisation and sensor technology
- Teaching, research and development go hand in hand



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Flanders Make

- initiated by the Flemish Government in close cooperation with the Flemish manufacturing industry, collaborating with different universities
- Serving a variety of sectors: AgriTech, Process industry, Construction, Transport and logistics, Healthcare operations, Defense & Security, Smart manufacturing, Sustainable Energy
- Research topics come from industry via bottom-up process



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Bodec



- Private Living Lab / Test bed
- SME owned
- Providing Scale-Up and R&D Solutions for food industry:
 - Process optimisation
 - Process development
 - Side stream valorisation
 - consultancy
- Test-before-invest approach

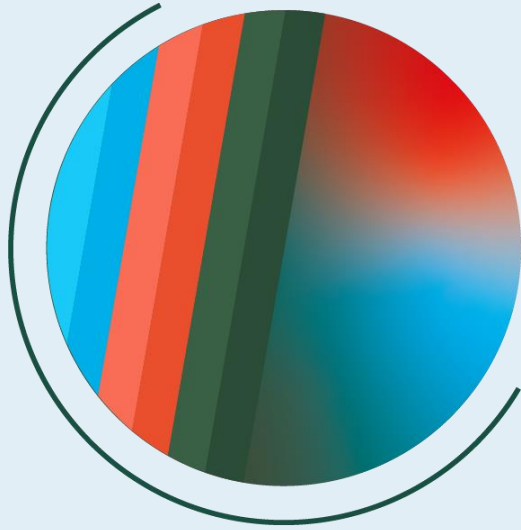


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SiccaDania

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The SIXFOLD way of tackling challenges

Who are we?

What is SIXFOLD?

What is our goal?





Stimulating Innovation eXperiments in Food prOcessing Live Demonstrators

LET'S GET IN TOUCH

<https://sixfold.ss4af.com>

@[SIXFOLD](#) 



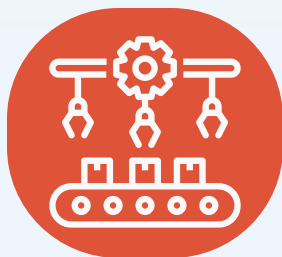
Innovation methodologies

Delivering a comprehensive sustainability plan and governance model to ensure the network's long-term success.



Piloting

Empowering 150 agrifood companies to test and implement cutting-edge technologies.



Food processing, digitalization, deeptech

Growing and strengthening the network of Living Labs, connecting agrifood companies, tech innovators, and regulators across Europe.



Demand driven innovation

Organizing six major study visits and co-creative sessions, with insights shared across at least eight partnerships and networks.



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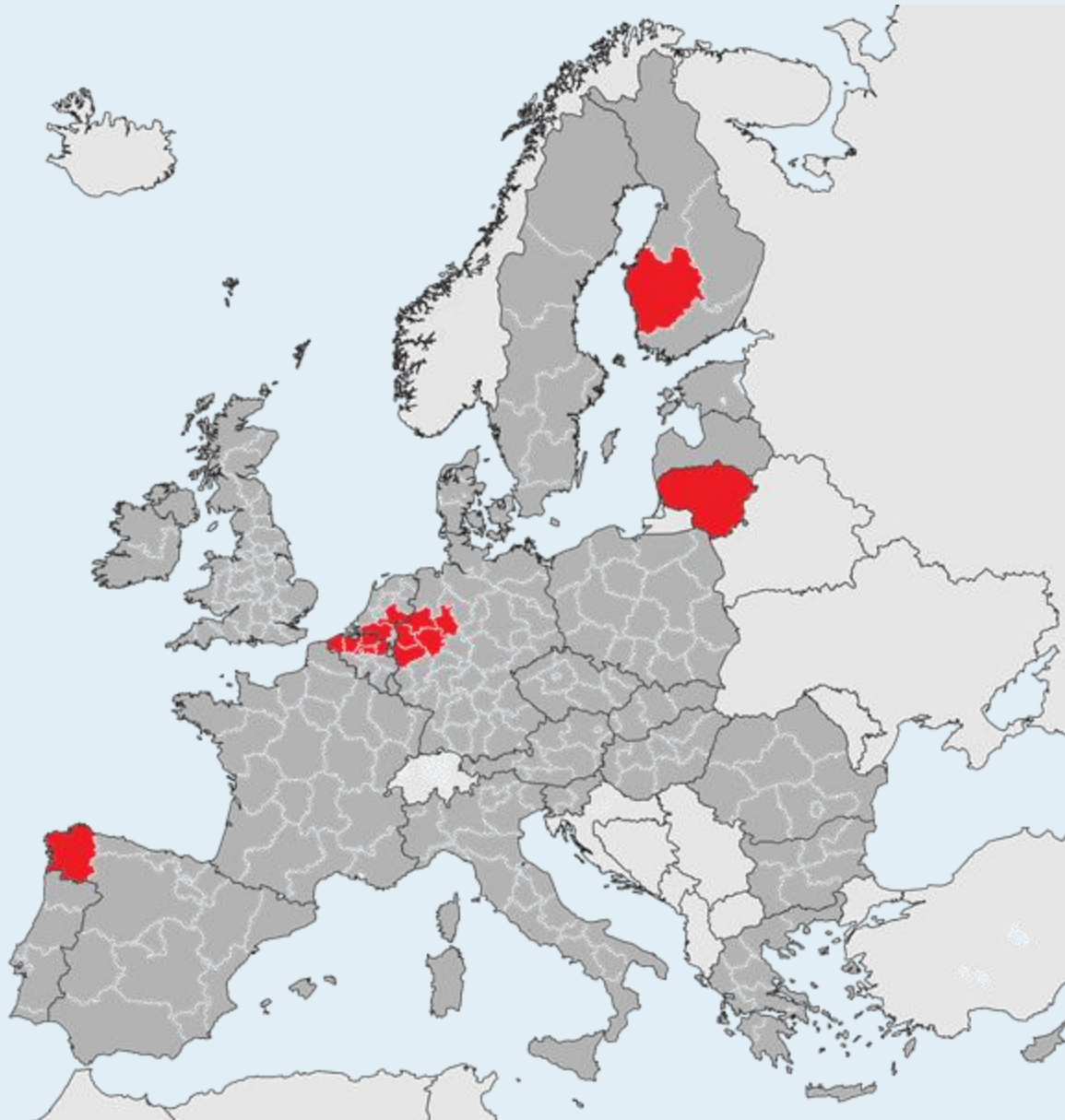
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Capital



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FOOD

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SEAMK
Seinäjoki University of Applied Sciences

AgriFood **DIH**
Lithuania

TH  OWL
UNIVERSITY
OF APPLIED
SCIENCES
AND ARTS



Barriers in FoodTech Innovation

- Internal company elements:
 - Social
 - Knowledge
 - Technological
 - Economical
- Intercompany connections
 - like collaboration challenges
- External company elements
 - Regulatory
 - Infrastructure
 - Geopolitical
 - Trade barriers



Opportunities and barriers for use of LL

Opportunities	Barriers for companies to innovate in a LL (seen from clusters)	Barriers to innovate in a LL (seen by companies)
Contract and (joint) strategic research	Awareness of possibilities of LL	Lack of financial resources
Testing and validation (certification, qualification)	Competition with other tech providers or food companies	Lack of staff and expertise
Support on scale-up	Time (i.e. to respond to requests, or time from the food company)	Geographical proximity of LL



Methods

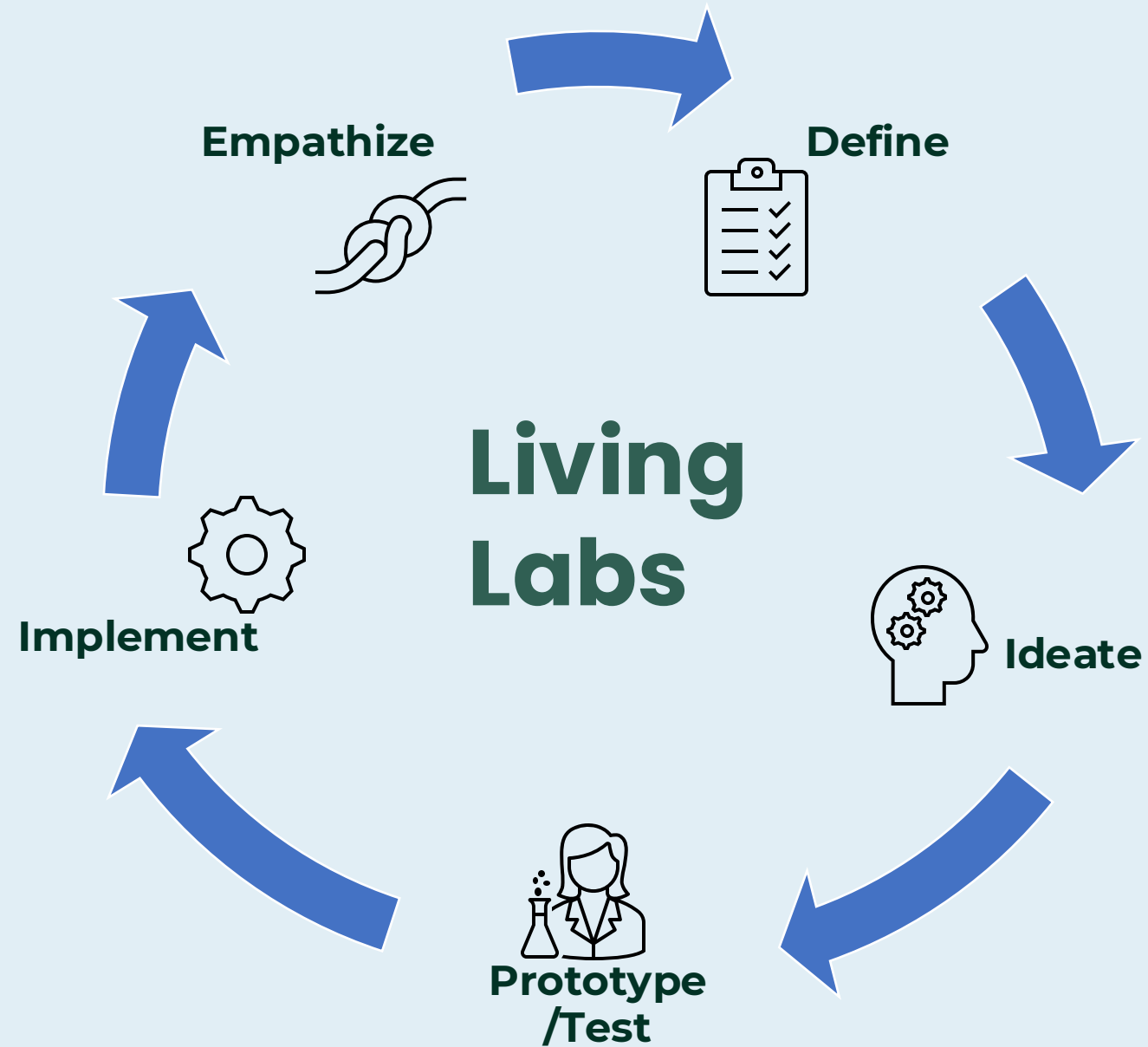
How did we start?

- Desktop study agrifood system
- Surveys: clusters and SMEs
- Interviews with LL
- common language
- (updated) operational handbook for food-tech LLs
- Develop framework for study visits



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Co-creation



Study visits



Digitalization and
Data Challenges



Novel Food –
Acceptance and
Precision
Fermentation



Strategic Networking
and Living Lab
Financing



Digital Twins –
Implementation,
Data Security, and
Skills



Test Case Workshop:
Meta Living Lab and
Digitalisation as a
Service

Study Visit in Kortrijk, BE

Topic: Digitalization and Data Challenges

Highlights:

Visits of Living Labs: VEG-i-TEC, Flanders Make and Sirris

Prototypes:

1. Strategy for digitalization in foodtech SMEs
2. Digitalization as a Service in Living Labs
3. From data to actionable information (Digitalization as a service)

Take-Away message: Small steps in the right direction are better than big leaps into the unknown



Study Visit in Seinäjoki, FI

Topic: Novel Food: Acceptance and Precision Fermentation

Highlights:

Visit of Seinäjoki Campus Food Labs

Prototypes:

1. User stories and stakeholders
2. Knowledge Transfer for Living Labs (Copy-Pasting Knowledge)
3. Addressing key challenges in acceptance and regulatory issues (Regulatory Sandboxing)
4. EU Network of Living Labs to support innovation

Take-Away Message: We all need more Barts and collaboration between Living Labs, storytelling can change perception



Study Visit in Vilnius, LT

Topic: Strategic Networking × Living Lab Financing: Turning Partnerships into Investments

Highlights: Taking part at the Agrifood Forum, Visiting Lithuania's Research Center for Physical Sciences and Technology (FTMC) and Vilnius College (ViKo)

Prototypes:

1. Roadmap for attracting investors for Living Labs
2. International playbook on how to run a good Living Lab
3. Strategic storytelling and investor-oriented success metrics

Take-Away Message: A network of Living Labs can not only help to learn from each other but can also be a powerful lobby to attract potential investors and make governments see the necessity of Living Labs



Study Visit in A Coruña, ES

Topic: Digital Twins

Highlights: Visiting ITG and their Robotics and Drones departments, take a deep-dive into the Galician Food innovation Ecosystem

Prototypes:

1. Develop Asset Administration Shell Show Case
2. Digital Maturity Check for Agrifood Companies
3. ROI Calculator assessing technological investments

Take-Away Message: A network of Living Labs can provide services that go beyond the capabilities of one single LL;
Sometimes easier solutions are the better ones



Prototypes

STUDY VISIT IN BELGIUM: DATA MANAGEMENT



Strategy for digitalization in foodtech SMEs



Digitalization as a Service in Living Labs



From data to actionable information

STUDY VISIT IN SPAIN: DIGITAL TWIN



AAS Showcase:
Live visualization of machine data and documents



Agrifood Maturity Check:
Digital quick check to determine the digital maturity level



Value-to-Digital Twin:
An ROI calculator that assesses technical optimizations

STUDY VISIT IN FINLAND: FOOD INNOVATION



- User stories and stakeholders
- Knowledge Transfer for Living Labs (Copy-Pasting Knowledge)



- Addressing key challenges in acceptance and regulatory issues (Regulatory Sandboxing)
- EU Network of Living Labs to support innovation



STUDY VISIT IN LITHUANIA INVESTMENTS IN LIVING LABS



- Developing targeted roadmaps for the investment process
- Creation of central network platforms (one-stop shops)



- International playbook on how to run a good Living Lab
- Strategic storytelling and investor-oriented success metrics





From Barriers to solutions

The SIXFOLD way



Study visits

Learnings and highlights



Co-Creation is key

To thoroughly understand a problem and work on feasible solutions, a trustful atmosphere between the multiple stakeholders is important. Stay open-minded to describe problems you didn't know exist to find a solution that really matters

Example from study visit in Vilnius: LL with different hosts (university, company-owned, NGO) have different perspectives concerning finances and customers. By including investors' and each other's perspectives, a business plan will be more sustainable



Shared narrative

Many problems across all areas have one common ground: Communication needs to be clear and easily accessible to get to the root of problems and show possibilities everyone can understand.

Example from study visit in Kortrijk: Person shared that they talked to a company which wanted a specific data solution but wasn't aware that their main problem was really a different one which could then be solved



Learning from each other is key

Study visits are a highly valuable tool to get inspiration, network and really exchange ideas and possibilities to work together not only on a specific topic but also in terms of organization and management.

Example from study visit in Seinäjoki:
In Finland, the lively precision fermentation and novel food community organized "dine like in 2024" events a few years ago which changed user perception on Novel Food



Lesson 2

- SMEs don't care about Living Labs.
- They care about solving problems.

Lesson 3

- Networks create more value than individual labs.

- Deliverable 2.3 ending



Outlook

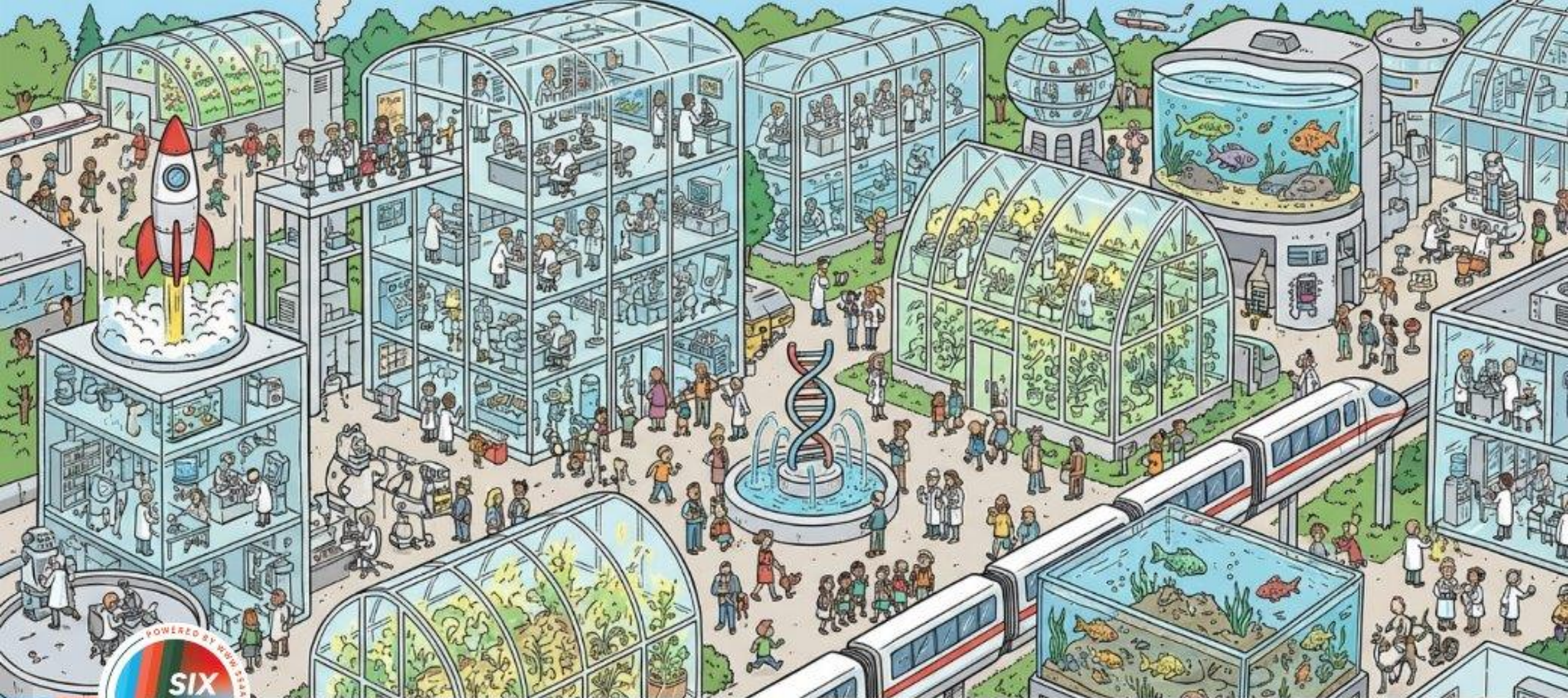
Towards a network of Living Labs

How to put in practice a network of LL

- MoUs
- Final Conference
- Setting up a network
- What does a network of LL look like for us
- Conference

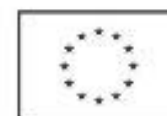
Approach

- mapping capabilities
 - connecting labs
 - knowledge exchange
 - cross-regional experimentation
 - common language
 - operational handbook
- What are we planning to do concretely (oat meal as research project, MoU network, meet and greet)



SIXFOLD CONFERENCE

22 - 23 September 2026
The Netherlands
Helmond, the Netherlands



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Invite to join final conference

- Link to website
- LinkedIn
- QR code ideally

Questions to the audience

- How many of you have referred a company, municipality, or researcher to another Living Lab outside your own organisation in the past year?
- Imagine an SME comes to your Living Lab tomorrow with a challenge you cannot solve. Would you know exactly where in Europe to send them?
- **What is the most valuable asset in your Living Lab?**
 - Raise hands for:
 - Physical infrastructure
 - Data
 - Expertise
 - Community/users
 - Industry network

Thank you!



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