

D3.2

# Needs assessment report on 5 citizen (change) driven initiatives – case studies

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Baiba Prūse, Julia Thompson, Verena Seufert, Anne Loeber

27/02/2024



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## Document Control Sheet

<b>Project Title</b>	<b>Fostering food system transformation by integrating heterogeneous perspectives in Knowledge and Innovation within the ERA (FOSTER)</b>
<b>Deliverable</b>	<b>D3.2 Needs assessment report on 5 citizen (change) driven initiatives -case studies</b>
<b>Work package</b>	<b>WP3:</b> Ground-proof and implement citizen science strategies, and engage in knowledge co-creation in 5 Citizen (Change) Driven Initiatives (CDIs) as case studies, emphasizing the engagement of youth, women, and underrepresented communities in food system knowledge integration
<b>Task</b>	<b>T3.2</b> Access the CDIs needs and gaps (Lead: VU; and UHOH, WR, BIOS, IRTA, KIS, all CDIs) (M7-M14): In collaboration with WP6, the knowledge gaps and needs of the CDIs will be assessed in order to understand how science and R&I policy may help the selected Citizen (Change) Driven Initiatives (CDIs) to achieve their ambitions as society-based drivers of transformative change in the food system. This needs assessment results in an action research agenda, and concrete plans for joint action, for and with the pool of food-system-oriented scientists in WP2 and all CDIs.
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**Table 1:** First round of feedback meetings between APs, WP3, WP1, WP4 and the CDIs.

## Glossary

Abbreviation	Full form (legal, English/local)
AP	Academic Partner
BIOS	BioSens Institut Istraživačko – razvojni institut za informacione tehnologije biosistema ( <i>BioSense Institute – Research and Development Institute for Information Technologies in Biosystems</i> )
CDI	Change-driven initiative
CSA	Community-Supported Agriculture
DELTA	Delta Fondacija ( <i>Delta Foundation</i> )
DIL	Deutsches Institut für Lebensmitteltechnik e.V. ( <i>German Institute of Food Technology</i> )
EC	European Commission
ECSA	Verein der Europäischen Bürgerwissenschaften ( <i>European Citizen Science Association</i> )
ERA	European Research Area
ERS	Ernährungsrat StadtRegion Stuttgart e.V. ( <i>Food Policy Council City Region Stuttgart registered association</i> )
FG	Focus Group
IAAC	Institut D'Arquitectura Avançada de Catalunya ( <i>Institute for Advanced Architecture of Catalonia</i> )
ibid.	ibidem ( <i>In the same place</i> )
i.e.	id est ( <i>That is</i> )
IrsiCaixa	Fundació Privada Institut de Recerca de la Sida- IrsiCaixa ( <i>Private Foundation for AIDS Research Institute, IrsiCaixa</i> )
IRTA	Institut de Recerca i Tecnologia Agroalimentàries ( <i>Institute of Agrifood Research and Technology</i> )
KIS	Kisléptékű Termékelőállítók és Szolgáltatók Országos Érdekképviselőinek Egyesülete ( <i>National Association of Interest Representations for Small-scale Producers and Service Providers</i> )
PGS	Participatory Guarantee System
PLP	Pannon Helyi Termék Nonprofit Kft. ( <i>Pannonian Local Products Nonprofit Ltd.</i> )
RRI	Responsible Research and Innovation
SPI	Sociedade Portuguesa de Inovação
TcV	Stichting Transitiecoalitie Voedsel ( <i>The Food Transition Coalition Foundation</i> )
UHOH	Universität Hohenheim ( <i>University of Hohenheim</i> )
UOXF	The Chancellor, Masters and Scholars of the University of Oxford
VU	Stichting Vrije Universiteit Amsterdam ( <i>Free University of Amsterdam Foundation</i> )
WP	Work Package
WUR	Stichting Wageningen University and Research ( <i>Wageningen University and Research Foundation</i> )

## Executive Summary

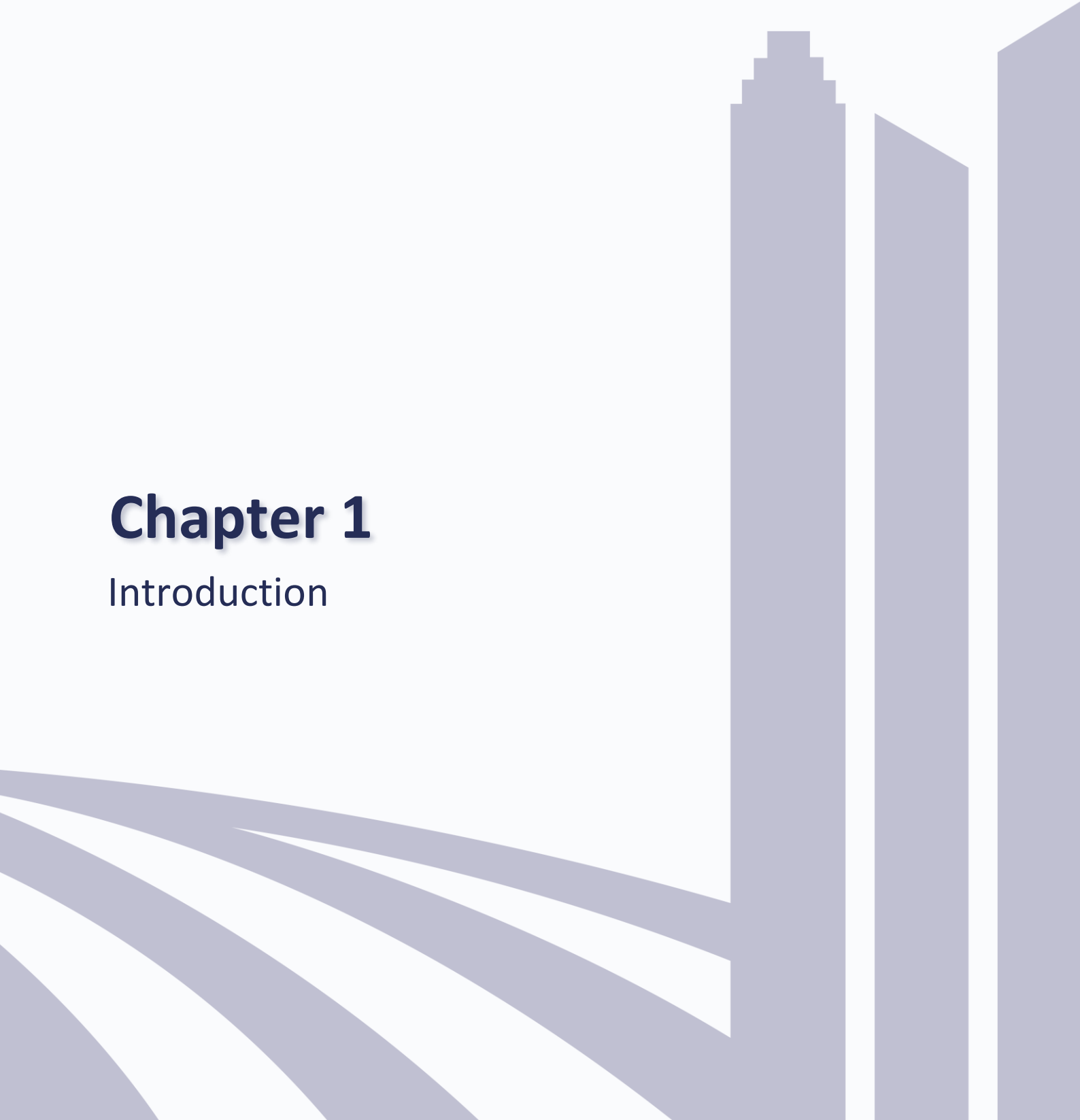
This report is part of a project funded by the European Union, “Fostering food system transformation by integrating heterogeneous perspectives in Knowledge and Innovation within the ERA” (FOSTER, Grant Agreement No. 101059954). The FOSTER project aims to contribute to changing the scientific knowledge base and associated knowledge and innovation systems in support of food system transformation towards sustainability. To this end, the FOSTER project includes academic partners (APs) as well as partners of change-driven initiatives (CDIs) from across the food system. Based in five countries across Europe, the six CDIs are: 1) Fab Lab Barcelona as part of the Institute for Advanced Architecture of Catalonia (Fab Lab IAAC - Spain), 2) Living Lab for Health - as part of the Research Institute IrsiCaixa (Living Lab IrsiCaixa - Spain) (a note: Fab Lab IAAC and Living Lab IrsiCaixa as part of FOSTER working on one shared case study), 3) the Food Policy Council Stuttgart (ERS - Germany), 4) Delta Foundation (Delta - Serbia) with the local initiative called “Digital Village”, 5) Pannonian Local Products Nonprofit Ltd. (PLP - Hungary), and 6) the Food Transition Coalition (TcV – the Netherlands).

The aim of this report is to provide the results of a **knowledge needs assessment for these CDIs**, by sharing insights from each CDI with respect to their activities and experienced gaps in their knowledge base. In order to answer the objectives of the report, specific data collection activities were organised, among them focus group discussion sessions between APs and CDIs. The findings of these sessions, as well as other sources including additional interactions via semi-structured interviews, follow-up correspondence with the CDIs, and notes from the project's first Summer School meeting, have been drawn upon to write this assessment.

Each respective CDI section of this report ends with a preliminary articulation of a pathway towards an action research agenda including plans for joint action as part of the subsequent Task 3.3. Each proposed action has a unique character and is divided in four main knowledge categories, namely, knowledge transfer, network knowledge, practical knowledge, and systems knowledge. The document serves as a starting point for dialogues among consortium members regarding the next steps. Acknowledging and including different perspectives both within CDIs and across the whole consortium is one of the take-home learnings of this deliverable.

# Chapter 1

Introduction



## Chapter 1 – Introduction

### 1.1. FOSTER narrative

The FOSTER project was set up to “*build a foundation from which a Knowledge and Innovation (K&I) governance structure for Europe’s food system can emerge*” (FOSTER proposal, p. 2, 2023). FOSTER’s guiding research question asks: “*how can the Knowledge and Innovation system be adapted to become more integrated from a food-oriented perspective, and more inclusive from the perspective of non-academically affiliated everyday experts?*” (FOSTER proposal, p. 14). Answering this question, in FOSTER, we focus on how to change, improve, and broaden the scientific knowledge base and the associated K&I system that informs ‘food system’ dynamics.

To achieve FOSTER’s goals, we follow the approach of systems thinking. Systems theory posits that complex systems have leverage points, which when acted upon can transform the behaviour of a system (Meadows, 2008). Knowledge flows (“information flows”) are one such lever. Expanding the knowledge flows into a system expands the system boundaries, and increasing the number of relationships within a system increases its complexity, thereby changing how the system behaves (ibid.). An even deeper lever than changing information flows is paradigm change (ibid.). FOSTER can potentially act on this lever by challenging existing paradigms in knowledge creation through knowledge co-creation with non-academic partners (FOSTER proposal, p. 8; cp. Cornell et al., 2013). In FOSTER, we expect that by changing how knowledge is produced, used, and shared - not only by scientists, but also by people engaged across the food sector, by policy makers, scientists, farmers and other food system actors - it will serve as a lever to change how our food is produced, processed, distributed, consumed, and how waste is discarded or re-used towards a more sustainable and just system.

A central hypothesis of FOSTER is that the existing commodity value-chain, often referred to as *Agricultural Knowledge and Innovation Systems* (AKIS) can be transformed to a more inclusive and sustainable *Food-oriented Knowledge and Innovation System* (FOKIS) by intentionally incorporating heterogenous perspectives, i.e. perspectives and knowledge from diverse food system actors outside the current AKIS boundaries (FOSTER proposal, p. 8). The mechanism by which FOSTER intends to diversify knowledge flows lies in knowledge co-creation via action research, bringing together change-driven initiatives (CDIs) and academic partners (APs) who engage in collaborative relationships, to learn from and work with each other. Not only are the APs supporting the CDIs in achieving their visions, but also the CDIs are supporting the APs in broadening their knowledge production. In FOSTER, each CDI is paired with the AP in their own country - with the exception of the two Spanish CDIs, who work jointly with the Spanish AP on one single case study - thus there are six CDIs, and five case-studies.

Work package three (WP3) was created as a living laboratory for experimenting with building knowledge relationships between scientists and CDIs, working together in identifying barriers and facilitators for knowledge co-creation in the food system (FOSTER proposal, p. 26). The first WP3 Task (T3.1, *Engaging the CDIs in a base-line assessment*) started the process of relationship building between CDIs and APs by encouraging interactions between the CDIs and their respective APs. In-depth interviews, a questionnaire, consortium meetings, focus group discussions, and other exchanges resulted in profiles of the individual CDIs and a clearer understanding of their contexts, their visions, and their theories of change. The second WP3 task (T3.2, *Assess the CDIs knowledge needs*), presented here, continued the knowledge relationship building through further exchanges, including in-person interactions at the first Summer School in Wageningen in October 2023, and via (online and onsite) meetings, focus groups, calls, emails, and text co-creation.

Task 3.2 is an exploration of the knowledge needs of the CDIs, with the objective of using the needs and gaps to identify possible joint research actions. This list of possible joint research actions is ready to be prioritized, operationalized, and executed in the next WP3 task (T3.3, *Engage the CDIs on-site in building new linkages between citizens, policy makers and scientists in practice*). For this reason, the following report provides the knowledge needs assessment across the five CDI case studies.



## 1.2. Background

The purpose of this deliverable is to provide an assessment of the knowledge needs and gaps of the CDIs. For the purpose of this deliverable, **knowledge needs** are defined as *knowledge that the CDIs require to achieve their vision*, while **knowledge gaps** are defined as *unmet knowledge needs*. In this deliverable, we are interested in the general knowledge needs, as these help us to understand whether and how the current K&I system needs to be adapted to better address the knowledge needs of practitioners in the food system. Furthermore, in preparation for the action research to take place in Task 3.3, we are interested in the CDIs' specific knowledge gaps, as these can help the FOSTER consortium to identify potential intervention points that form the basis for the knowledge co-creation in Task 3.3.

To this end, this deliverable aims to answer the following three research questions:

1. What are the knowledge needs and gaps of the CDIs to achieve their vision?
2. How could science and the K&I system contribute to meeting some of these knowledge needs?
3. How can FOSTER contribute to meeting some of these knowledge gaps (through co-creation of knowledge in Task 3.3)?

The report covers the methodology used in answering the above research questions, followed by a summary of the knowledge needs and gaps as found for each CDI and by possible pathways towards action (Chapter 2), and a summary of the proposed follow-up steps based on the assessment as well as lessons learned (Chapter 3).

## 1.3. Methodology

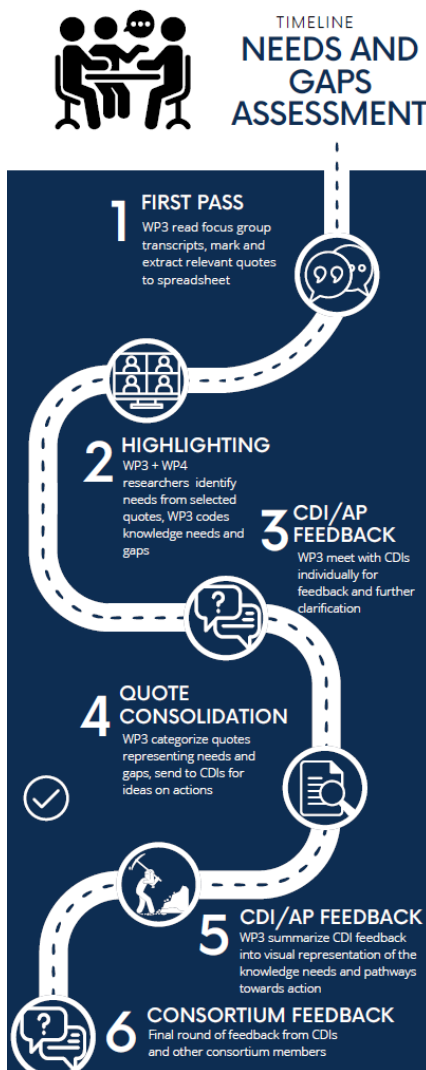
A foundational approach underpinning FOSTER is the multi-actor approach, which the EU describes as the *"genuine and sufficient involvement of [practitioners and (end) users] (...) over the whole course of the project: from participation in development of the project idea, planning and experiments to implementation, communication and dissemination of results and to a possible demonstration phase"* (p. 21-22, Horizon Europe Work Programme 2023-2024). WP3 has worked closely with the CDIs and WP1 and WP4 members throughout this needs assessment, which is a preparation for the joint action research of Task 3.3.

For the needs assessment, the focus group transcripts described in D3.1 (*"Consolidated status assessment report for 5 CDI-case studies"*) were read and coded through several iterations, which included multiple consultations with the CDIs (for an overview, see Figure below). First, members of both WP3 and WP4 read the semi-anonymized transcripts and marked quotes of interest (*"scrutinizing,"* Ryan & Bernard 2003). The marked quotes were extracted to a spreadsheet, as input in a joint WP3/WP4 meeting in October 2023 in which a preliminary inductive identification and clustering of the CDIs' knowledge and governance needs took shape. WP3 thereupon further analysed the data, flagging quotes that signified a knowledge need/gap, and inductively assigning themes and subthemes to the knowledge needs and gaps.

Following these initial rounds of identifying themes, members of WP3 met with representatives of each CDI individually (except for a joint meeting of both Spanish CDIs, as they form one case study) – these are referred to in the document as feedback meetings. The purpose of these feedback meetings was to verify WP3's understanding of the needs indicated in the quotes (respondent check to ensure internal validity/credibility; Guba & Lincoln, 1989) and clarify WP3's understanding of some quotes that presented multiple themes or could have multiple interpretations. In addition to WP3 and the CDIs, members of WP1 and WP4 also attended these meetings to address questions directly to the CDIs. Table 1 illustrates the meeting overview.

**Table 1:** First round of feedback meetings between APs, WP3, WP1, WP4 and the CDIs.

Day	CDI	WPs and roles present
13th of November, 2023	Food Transition Coalition	AP, WP3, WP4
14th of November, 2023	Fab Lab Barcelona and Living Lab IrsiCaixa	WP3, WP1, WP4
14th of November, 2023	Pannon Helyi Termék Nonprofit Ltd.	AP, WP3, WP4
20th of November, 2023	Food Policy Council City Region Stuttgart	AP, WP3, WP1, WP4
20th of November, 2023	Delta Foundation	AP, WP3, WP1, WP4



After the first round of feedback meetings, WP3 grouped the quotes following inductive reasoning (cutting and sorting, cp. Lincoln and Guba, 1985, p347–51). The CDIs were each sent a short document consolidating their quotes on knowledge needs and gaps with the themes and subthemes (second round of respondent checking), and further questions for each quote or quote cluster were addressed to the CDIs:

1. Which source/who can provide this knowledge?
2. What knowledge do you (the CDI) have (access to) that you hope to contribute to this need?
3. Who else needs to be involved to address this need beyond the potential knowledge source (1)?
4. If relevant, how could this need potentially be addressed through an action in FOSTER (as part of Task 3.3)?

The input provided by the CDIs on the questions about their knowledge needs and potential actions were then categorized based on the following four overarching knowledge categories:

- **(Gaps in) knowledge transfer** involve knowledge that exists, but that is not transferred to the places where it is needed (Alavi & Leidner 2001);
- **(Gaps in) network knowledge** involve collaborations required to access the right information (this corresponds to the ‘know who’ from Lundvall & Johnson 1994);
- **(Gaps in) practical knowledge** involve needs in acquiring practical skills for direct application during daily activities (this corresponds to the ‘know how’ from Lundvall & Johnson 1994);
- **(Gaps in) systems knowledge** involves an understanding of (food) systems and system dynamics that is required for appreciating concrete actions in the light of ambitions to trigger wider food system transformative processes (Voulvoulis et al., 2022).

These knowledge categories emerged from the analysis inductively (that is, they were not defined *a priori*) upon which they were grouped in terms of associated literature, as they represent re-occurring themes amongst all CDIs.

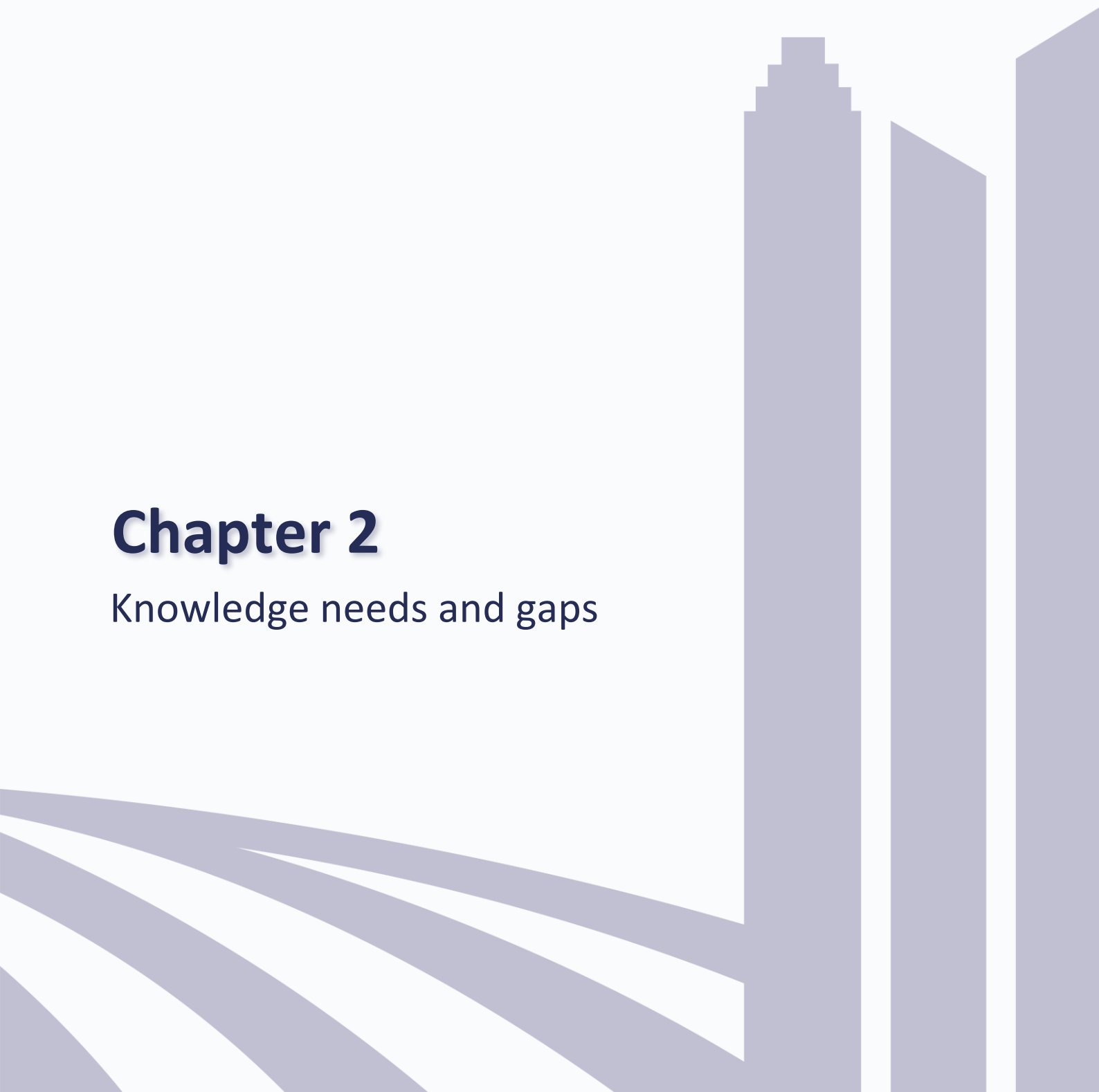
Identified knowledge needs and gaps were triangulated with additional data sources among them, presentations from the Summer School in 2023 and Deliverable 3.1. (further in the document referred as Prüse et al., 2023).

After iterative feedback steps among the WP3 team, it was observed that a visual element will be useful in providing an overview of the identified needs and pathways towards action. For this purpose, visualizations via *canva.com* were developed. Added to the visualizations are illustrative quotes or summarized insights from the respective CDIs (if not otherwise stated).

WP3 holds extensive interlinkage with other FOSTER work packages. WP1 (focusing on foresight) participated in WP3 meetings with the CDIs, as understanding the CDIs’ current positions affects how they position themselves with regard to possible future events; WP2 (summer school and academy) developed the questionnaire used as a source in D3.1, and uses data collected by WP3 to inform the content of the summer schools; WP4 (governance) has an interrelated parallel task to WP3’s Task 3.2, namely Task 4.2 “*Bottom-up identification of improved R&I governance mechanisms to support food systems transformation*” and therefore participated in formulating the focus group discussion questions and in the preliminary coding efforts to identify needs and gaps; WP5 (public engagement) has used data collected by WP3 to inform their profiles of the CDIs which appear on the FOSTER website. And finally, WP6 oversees and provides guidance to WP3 from the perspective of integrating insights from and ensuring consistency throughout all FOSTER WPs. Through these collaborations, we were able to notice the potential of building upon each other’s work, therefore we invite also other WPs to view this report as a possibility to jointly approach the CDI knowledge needs and gaps.

# Chapter 2

Knowledge needs and gaps



## Chapter 2 – Knowledge needs and gaps

This chapter provides insights in the identified knowledge needs of each CDI. The structure includes a short overview of the respective CDIs, followed by the main knowledge needs and gaps structured by the identified categories (see Chapter 1) and explained with illustrative quotes from the CDIs. Each ‘needs and gaps’ section ends with pathways towards action for Task 3.3. Note that in some cases (e.g. for Hungary), where numerous different potential pathways to action emerged from the discussions, these are presented separately for each knowledge need and gap category. While in other cases (e.g. for Serbia and Netherlands), where only one or two potential pathways to action emerged from the discussions, these are presented as a single section across all knowledge categories at the end.

### 2.1. Hungary: Pannon Helyi Termék Nonprofit Ltd. - PLP

Pannon Helyi Termék Nonprofit Ltd. (PLP) members shared the following objectives of the respective organisation: *“The founders [several individuals] like to help local handicraft products, agricultural and food products to find their market by creating a unified image and by finding individual sales solutions. Another important objective is to increase employment opportunities and to provide some income generating solutions in (...) rural areas”* (PLP member, Prüse et al., 2023). The PLP notes that their future plans *“include strong awareness-raising activities in the mindset of the customers, trainings for the producers, [and] technological, product, and packaging development”* (ibid.).

As part of FOSTER activities in WP3, PLP members identified several needs and gaps in three main categories: knowledge transfer, network knowledge and practical knowledge.

#### 2.1.1. Knowledge needs and gaps: KNOWLEDGE TRANSFER

*“(...) After all, a lot of places or shopping communities are created on the initiative of customers, and of course they want a product, but in addition there is also the experience and the desire for knowledge. It is very important at the level of vision, that this interested party, who is a dedicated searcher, who appears as a buyer, **how they [consumer] can become a producer**”.*



*“We still need to improve in the field of **agricultural consultancy for farmers**. It is not necessary to understand everything, this would require the involvement of external experts”.*



*“I believe that in order for that producer to get from A to B, **they need a Facebook page or an advertising opportunity** where they can show their products, then we can help with that. The NAK (agricultural chamber) cannot help with this, it offers a completely different type of advice”.*



*“Practice that is already working: how can we help the organizers of farmers' markets operating in a region or county to share information with each other, or to provide a small information gate in this regard. After all, **what is very important to them is where and what kind of producer is there, or who has indicated that they do not have a product now, or that they should look for another market**. These are important!”*



*“Considering how much chemicals were used in a small garden, or how much it can be, no one measures it. **There are also bad experiences here, and such a trademark system might help**”.*



Numerous knowledge needs and gaps that PLP experiences via their collaborators can be categorized as knowledge transfer needs, i.e. the lack of transfer of knowledge to the places where it is needed. These include, for example, the need for better agricultural extension services for farmers, the need for effective marketing platforms to communicate about their products for farmers, the knowledge needs of conscious consumers who want to know where products come

from, the need for product labelling to convey information about management practices, as well as the need for knowledge exchange between small-scale producers and farmers' markets. Additionally, PLP has a challenge of not having enough local producers who join and stay active and involved in the co-operation. On the other hand, consumers of local products are interested in sustainable consumption and could be motivated to join community gardens and/or trained to start their own production for a shopping community or other local retailing modes. PLP could play a more active role in motivating, training and mentoring this target group.

## Pathway towards action

In order to address these knowledge transfer needs, PLP provided several potential activities for collaboration in Task 3.3 of FOSTER.

*"A survey of consumers in farmers' markets and shopping communities on the knowledge they want to acquire and their motivations for doing so".*



*"For legislation/foreign practices: practical training courses developed for actors in the distribution chain, - downloadable online courses".*



*"Pilot marketing campaign to promote the products, producers and outlets of a region on a network basis, e.g. linked to the planned pilot introduction of the "We are local" trademark scheme. (...) Pilot application of the "We are local" trademark programme and related producer and customer research and analysis".*



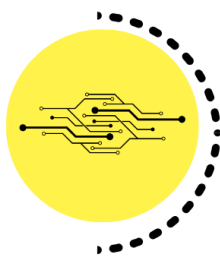
*"Host a single online platform to deliver relevant practical knowledge and services from national and international partnerships, and Pilot service delivery (e.g. online advisory services). (...) For agricultural advising: expert/consultant database, platform presenting".*



The potential actions identified by PLP that could be implemented to address the knowledge transfer needs include a consumer survey to better understand the information desired by consumers, a pilot regional marketing campaign with the 'We are local' trademark, as well as an online platform that provides extension services to farmers.

## 2.1.2. Knowledge needs and gaps: NETWORK KNOWLEDGE

*"We don't know what will happen in the future. It is true that there are many new entrants, but how stable can they be? Our aim is therefore to broaden the base of those who can be involved in the local product chain".*



*"Well, I think bureaucracy is always a big obstacle. The chamber is also a large organization, things are difficult to pass there. It is easier at a municipality level, to find the contact person who can actually answer a question or make a decision on the given issue".*



*"We always follow the current trends and legislative changes, we try to follow foreign good practices, and it is from network cooperation that we also learn from each other".*



Knowledge gaps and needs related to network building – i.e. the knowledge about ‘who’ to connect to - emerged in rather different areas. One network need identified relates to connecting to new types of potential entrants into agriculture. PLP also expressed the need to better understand government decision-making structures and to identify the most effective partners in government who can provide the information or make the decision the CDI needs. PLP also emphasized the need for international networks to learn about best practices, as well as broader trends. Finally, an important network gap PLP identified was based on the challenges of getting farmers to cooperate with each other. PLP emphasized during a feedback meeting that “(...) *generally Hungarians don't want to cooperate with each other. Every farmer would like to build their own business, they are maybe afraid about common things*” (feedback meeting notes). The follow-up discussion indicated that: “*The most important gap is the lack of motivation to cooperate, to develop their businesses, new products, use new communication tools*”. When asked why motivation is lacking, the Hungarian CDI partner emphasized that “*they are alone, they can't reach the EU funds because they are very small, and these applications don't fit to their needs*” (feedback meeting notes).

Network building thus emerged as a strong and important need in the work of PLP – both in terms of knowing who to connect with who can support PLP activities (e.g. within the government or amongst potential new entrants into agriculture) - i.e. ‘who can do what’ (Lundvall & Johnson 2006), but also in terms of knowing who to connect with to access relevant knowledge and information – i.e. ‘who knows what’ (ibid.).

Based on the feedback meeting, the PLP members also emphasized, that “(...) *we [Hungary] have very few local producers and they are struggling with everyday life, local farmers deal with these activities as well as their other job, no financial capacities, even knowledge*”. The farms of interest are small, from 1-2 hectares or even less (i.e. market gardens). A PLP member added, “*the number of local producers who can sustain their activities for long-term is low*” (follow-up correspondence).

## Pathway towards action

In terms of network development, the CDI provided four inputs for approaching network needs.

“**Mapping** unknown local producers- compiling a comprehensive producer's database in the area on the topics”.



“Elaborate and implement measures that **broaden the base of potential entrants into the local product chain** and/or PLP - **awareness raising campaigns, short targeted trainings, etc.**”



“**A broad survey of local product** chain actors (producer, processing, commerce, consumers) on their needs, motivations, etc.”



“**Cross-sectoral workshops to address common challenges** in the production and marketing of local products, to strengthen dialogue and cooperation - Damage linked to the Pilot phase of the “We are Local” trademark programme”.



These potential network actions thus include stakeholder mapping, stakeholder surveys, stakeholder engagement campaigns, as well as activities promoting knowledge exchange amongst stakeholders. In line with these potential actions, PLP also mentioned during the first FOSTER Summer School that providing methods for stakeholder engagement could represent an important learning they could get from FOSTER.



### 2.1.3. Knowledge needs and gaps: PRACTICAL KNOWLEDGE

"I think personal abilities and skills should be developed, for example **mediation, mentoring, helping several actors work together, conflict management**".



**"Ensuring the appropriate human background and human factors is just as complicated,"** since, for example, in order to professionally manage a tender at an appropriate level, a relatively more limited set of competences is required".



"Communication is especially difficult on the production line. **Even e-mail communication [with producers] often runs into obstacles**".



When it comes to practical knowledge, PLP identified several practical skills and competencies that the stakeholders they work with would need to develop further. These include interpersonal competencies like group facilitation, conflict resolution or communication but also strategic and administrative competencies like managing tenders.

#### Pathway towards action

As for the desired practical knowledge, several inputs were provided by the PLP team.

"Extension of the training for local product market organisers with a new module, which is specifically aimed at imparting **methods and techniques for partnership-building and conflict management**".



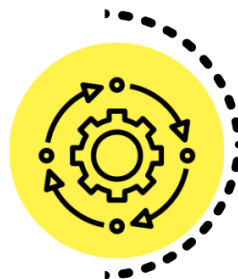
**"Methodological recommendations, workshops, case study** (e.g. network-based capacity planning for the "We are local" programme)".



Potential actions to address the practical knowledge gaps amongst stakeholders include training on interpersonal competencies, as well as supporting activities for PLP's "We are local" programme.

### 2.1.4. Knowledge needs and gaps: SYSTEMS KNOWLEDGE

**"Analysis of the impact of national and international societal trends on the sector,** e.g. migration out of cities, increasing health and eco-sustainability, research into economic models for community self-sufficiency (holistic analyses)".



An additional knowledge need that emerged during the final feedback round (which was not discussed during any of the previous interactions), was related to the need for better systems understanding. Several of the key learnings that PLP mentioned during the FOSTER Summer School that they hoped to get from participating in the FOSTER project also were related to (food) systems knowledge – i.e. an understanding of how (food) systems work and how they can be changed:

1. Providing tools for identifying desired local/regional food systems;
2. Introducing possible scenarios in connection with regional food systems;

3. Developing a road map to reach changes in the food system;
4. Sharing best practices about successful transition;
5. Feedback and academic support.

## 2.2. Serbia: Delta Foundation and other collaborators – “Digital Village”

The aim of the “Digital Village” initiative is to improve the livelihoods of farmers in the village of Mokrin (Serbia) via a digital agriculture transformation process (Prūse et al., 2023). This process focuses on improving agricultural working conditions and increasing farm incomes via higher yields through the extension and deployment of appropriate technology, in particular the installation of wireless digital infrastructure and a smartphone-enabled communication platform. The “Digital Village” was founded and initiated by the Delta Foundation (CDI) and the BioSense institute (AP). Together they collaborate with the Mokrin House, a co-working and co-living space in the village of Mokrin, where the initiative is located. As a representative of Delta Foundation noted: *“In my opinion, the short-term vision of the Digital Village is to identify all the needs, services, and solutions that can be offered to small and medium agricultural producers in Serbia in order to enhance their production in terms of technology and short-term profit”* (ibid.).

As part of FOSTER activities in WP3, the Serbian CDI partner identified several knowledge needs and gaps in two main categories: knowledge transfer and network knowledge.

### 2.2.1. Knowledge needs and gaps: KNOWLEDGE TRANSFER

*“Science needs to present knowledge to these young guys in a way that is acceptable to them because, from my experience, they want to work but they don’t know what and how. The emphasis should be on small-scale farmers, as the large-scale farmers will survive regardless”.*



*“...if they receive the necessary knowledge, I think education is crucial here. **Not just theoretical, but also having someone come and support and say, “I’ve tried it, why don’t you give it a shot?”**”*



*“Some individual agricultural producers **don’t even know what subsidies they can receive.**”*



*“Maybe I would add a bit more **practical work and examples of good practice.** As Mokrin House, we don’t have those examples like others. Perhaps people would prefer to hear about other people’s experiences; that might be enjoyable”.*



Several of these knowledge needs and gaps identified by the Delta Foundation relate to (farmers’) access to knowledge they need. The lack of knowledge was identified both in practical terms (e.g. how to access knowledge about subsidy programs they can apply for), as well as more general knowledge about farming that could support producers and help them survive and stay in agriculture. The knowledge sources, where the knowledge required for these knowledge gaps should come from, include both science but also peers.



## 2.2.2. Knowledge needs and gaps: NETWORK KNOWLEDGE

"Yes, that's why I think it's important for us to sit down. We now have information about what each person is involved in, but ***we need to assess the potential, who could possibly be interested or willing to engage in these activities.*** (...) That's why it's important to identify a leader or manager among the villagers or within a group who can oversee the entire process because we don't have enough capacity to manage it. Therefore, it's crucial to have the willingness of the residents and to reach an agreement among them, which is a challenge."



In terms of network knowledge, the Delta Foundation added the need to understand 'who can do what' and who might be interested in engaging with their activities, as well as the need for "mediators" or ambassador-type of representatives within the Mokrin area to facilitate the engagement with their upcoming digital platform.

### Pathways toward action

"Well, I think it's crucial ***to create a digital platform that local residents can use***".



During the follow-up meeting, Delta Foundation talked about the development of the MokrinSens digital platform as a potential pathway towards action that could address the knowledge needs identified. BioSense (AP) has already released an AgroSens smartphone application for the Serbian market (<https://www.agrosens.rs/#/app-h/about>), which is free to download and use. The AgroSens app provides general information for Serbian farmers on agronomic cultures, soil analysis, digital farming technologies, and provides current information on weather conditions, crop pest and disease conditions. Moreover, the app offers information from satellite and drone images on plant growth, photosynthetic intensity, water and nutrient availability, although the data resolution is not very high. In contrast, in the MokrinSens app (a new application currently being developed by BioSense), Mokrin farmers can get granular information about weather, pest, and plant growth for their particular plots and fields. Furthermore, it is intended to be a virtual cooperative, where farmers, banks, insurance companies, buyers, sellers, advisors, and other agricultural actors can meet and exchange information. Hence, the app creates access to more specific information as well as fostering cooperation.

In addition, during a feedback session, the CDI's representatives shared an idea of organizing a workshop with local small-scale farmers (identifying them via a bank client system) as one way for farmers to communicate their needs regarding the new MokrinSens platform. The current MokrinSens platform is in preparation for an alpha release in March 2024 with these planned functions: a blog section on current issues that farmers are facing, a forum for registered Mokrin Digital Village farmers, and a Q/A section with access to Delta Agrar advisors. As discussed with the Delta Foundation during a feedback session, there is a potential to integrate the identified knowledge gaps within the new MokrinSens platform. The future idea is to make the platform available to farmers also outside the Mokrin area, but for now the system is designed as a pilot for the farmers in Mokrin.

In more general terms, Delta Foundation outlined six main learnings during the Summer School 2023 the CDI was hoping to get from FOSTER:

1. Exchange of knowledge and experiences;

2. Close insight into existing examples of good practice and emerging trends in Europe;
3. Developing valuable connections with institutes from Europe;
4. New perspectives thanks to the research from the FOSTER project;
5. Learning about new solutions for sustainable agriculture and incentives for digitalization;
6. Providing videos / promotional materials.

## 2.3. The Netherlands: Transitiecoalitie Voedsel - TcV

The Transitiecoalitie Voedsel (TcV) describes themselves as “a collective of transition thinkers and doers who want to give direction to the agrifood transition” (Prüse et al., 2023). Their stated motto is, “a healthy life on a healthy planet. For everyone” (ibid.). The TcV sees themselves as having two main roles: firstly, as challengers, as catalysts for change, by raising topics and initiating action; and secondly as connectors, bringing frontrunners and pioneers from different areas together (ibid.). TcV is currently focused on four main themes: the protein transition, food environment, sustainable agriculture (including soil and human health), and rewards and pricing (ibid.). In the follow paragraph several of the knowledge needs and gaps are named as part of TcV network organisation.

### 2.3.1. Knowledge needs and gaps: KNOWLEDGE TRANSFER

“Yes, there's also a whole area of how to activate citizens and share agricultural knowledge with them”.  
 “What research themes emerge from the perspective of consumers? Or what knowledge needs arise from consumers in this system?”  
 “But well, individual consumers are not organized, so **we don't know the questions they have...**”



“I have to say, what stuck with me **is how farmers learn nowadays**. They watch more YouTube videos than reading papers from Wageningen University & Research (WUR). I don't think that was necessarily on the agenda, right? So, it's not just about the content but also how you present it. I find it quite interesting, honestly”.



“So we have many knowledge questions within the Green Farmers' Movement. There's still so much knowledge that simply doesn't exist yet, so we can't even talk about sharing because it hasn't been researched. (...) Yes, and the knowledge is mostly with colleagues, but there aren't that many colleagues yet because there aren't that many agroecological farmers. **So, there is a huge knowledge demand on that topic**”.



During focus group discussions with TcV and one of their coalition partners, the community-supported agriculture (CSA) network, several key knowledge transfer gaps emerged. One of the main knowledge gaps that was mentioned by the CSA network relates to the lack of green farming knowledge for farmers, resulting from a lack of research on green and agroecological farming. While knowledge about green farming is present as peer knowledge amongst green farmers themselves, this peer knowledge is difficult to access due to the currently still small number of green farmers in the Netherlands. YouTube was mentioned as an important knowledge transfer tool for farmers, which could be harnessed to transfer knowledge about green farming to producers. Another knowledge gap related to the transfer of knowledge about agriculture to consumers, as well as the lack of knowledge about the actual knowledge needs of consumers.

### 2.3.2. Knowledge needs and gaps: PRACTICAL KNOWLEDGE

*“And you need training for both the farmer and the citizen on how to have those conversations. Because both citizens and farmers find it challenging. You want an open dialogue, not a finger-pointing situation. And often the citizen thinks, “What do I know about this? Why should I be able to ask that question?” So, you also need guidance and a sort of course or training for citizens and farmers”.*



In terms of practical knowledge needs and gaps, the CSA network mentioned the need for both farmers and consumers to learn how to better communicate and share information with each other, to allow them to build relationships that support the transition towards agroecological farming.

### 2.3.3. Knowledge needs and gaps: SYSTEMS KNOWLEDGE

*“(…) you’re working with the public interest, but there are no public resources for it. You get categorically rejected because it’s considered overhead or not directly results-oriented. (…) So sometimes, it would be nice to have substantial funding where we have the freedom to push back against the system because that is our role in transition studies”.*



In terms of systems knowledge, an important knowledge gap that TcV discussed was related to the lack of understanding of societal transitions amongst government and funders. As a result, funding schemes are not fitting and not supportive of the work of TcV.

### Pathways towards action

*“Currently, with organic farmers, we’re dealing with the organic action plan and developing knowledge. We have a network around caring farmers. We have a network around agroecological farmers, and we’re making an effort to connect them and make it more visible and secure financing for that”.*



*“Yes, more knowledge about transition management and how to direct it should be addressed at governments. Also the fact that there is a role for organisations like TcV and what structural funding they need (not only funding for short projects, but structural funding for the organisation)”.*



Two key potential learning paths were discussed by TcV and the CSA network (as one of its coalition partners) to address the knowledge needs and gaps identified. The first relates to network-building as a knowledge need for the CSA network. Farmer networks emerged as an important strategy to provide access to knowledge for agroecological farmers. In addition, farmer-consumer networks were discussed as an important strategy to share knowledge between producers and consumers. TcV is working with a CSA network, which wants to establish a stronger connection between citizens and farmers, and create a relationship built on trust. Specifically, they want to work with a Participatory Guarantee Systems (PGS) approach with some CSA farmers and gardeners. By monitoring, they want to find out what the effect of this PGS is on the farmers, the citizens, and their relationships.

The second potential action to address identified knowledge gaps relates to a better understanding of transition approaches amongst government and funders. This would, however, require not only improved knowledge transfer on transitions and the role of different actors in transitions from both practitioners (like the TcV) and research to

governments and funders. But it would also require ‘*more capacity for TcV to develop strategic plans, including Theories of Change, and to find fitting funds (charity or governmental)*’ to support this knowledge transfer.

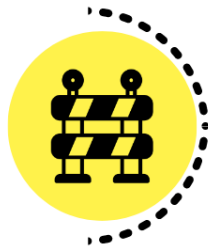
## 2.4. Spain: Fab Lab Barcelona & Living Lab at IrsiCaixa

The Fab Lab Barcelona understands itself as an innovation centre that is rethinking the way we live, work, and play in cities (Prüse et al., 2023). In their own words, the Fab Lab has the mission of “*bring[ing] knowledge and technologies to the people, to the citizens, so that they can empower themselves and create their own projects, their own ideas, bring them down from a conceptual way to a tangible and real way*” (ibid.). As noted by the Lab members: “*our goal is to be that partner or that place where you can find everything you need to create your idea from scratch*” (ibid.).

The Living Lab for Health at IrsiCaixa team notes their mission as follows: “*to facilitate innovation networks to contribute to the resolution of complex and persistent health challenges. These challenges are persistent because innovation is not achieving the desired impact due to the current fragmented model of the research and innovation system. The Living Lab IrsiCaixa designs and implements integrated interventions to address them through multistakeholder innovation networks*” (ibid.).

### 2.4.1. Knowledge needs and gaps: SYSTEMS KNOWLEDGE

“And I believe that we are lacking this **reflection on systemic barriers** and to make the effort”.



“(…) but then **the reality is that these initiatives do not penetrate into vulnerable areas**”.



“There are **a lot of shortcomings in the indicators**, both in terms of knowledge and process, and implementation, and (...)”.



The Spanish CDIs FabLab and the Living Lab at IrsiCaixa identified several knowledge gaps related to systems knowledge, including, for example, the lack of reflection and knowledge on systemic barriers (e.g. in technology education). This was associated with the need for improved strategic thinking and planning on how to make an impact beyond the duration of single projects. Another important gap that was discussed was the lack of suitable indicators (e.g. about health) - both in terms of how these indicators are developed and measured (e.g. the challenge of measuring long-term and non-linear processes), as well as the information they are able to communicate to decision-makers. Finally, the CDIs emphasized the need for more inclusive policies, as well as a more inclusive R&I system. They said that a better fit between policy targets and their actual implementation and impacts is needed, particularly when it comes to policies targeting vulnerable areas. Similarly, a better fit between the needs of vulnerable areas and the activities of the local R&I system was expressed.

### Pathway towards action

One potential learning path mentioned by the Living Lab at IrsiCaixa is the need of adding reflexivity to address systemic barriers and to increase long-term impact. For example, the Living Lab at IrsiCaixa indicated that “*For us it is a priority to focus on this reflection on systemic barriers in all our projects*”. They also highlighted that they were starting to include funding for such strategic and reflexive work in projects, e.g. as dedicated work packages. The CDI also mentioned during the Summer School that “*Support for Reflexive Monitoring in action & impact assessment*” was a learning they were hoping to get out of the FOSTER project. In a similar vein, they also mentioned “*Develop and disseminate methodologies and resources for improving the impact of the Living Labs while transferring academic Knowledge*” as a related learning

that could emerge from FOSTER. The questions are linked on how to improve the role of research in multistakeholder co-creation processes specially in vulnerable areas.

Specifically, towards the indicators, Living Lab at IrsiCaixa explained that they were implementing a new methodology and co-designing indicators.

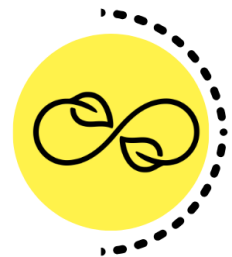
One potential shared action mentioned among both the Fab Lab Barcelona and Living Lab at IrsiCaixa is regarding an increased focus on underrepresented groups. Additionally, as shared by Living Lab at IrsiCaixa: *“to develop system knowledge, target knowledge and transformative knowledge”* - can be a way of achieving a more inclusive policy and K&I system. And that this new knowledge needed to be transdisciplinary.

## 2.4.2. Knowledge needs and gaps: PRACTICAL KNOWLEDGE

"Personally, in the area of food, because this is the area that I manage, ***I would be missing information on all the processes of food legislation.*** This is very important when it comes to innovation. In other words, you are going to innovate, but you don't know what is allowed, what is not, what can be harmful, what is not. This is very important".



"Business development. Because we go round and round. Now we have designed a website. So how do we maintain the sustainability of this website? That there is a business model behind it... How do we make this network grow that we are setting up in one neighborhood and now we will go to other neighborhoods? ***So how do we make it sustainable over time?***"



In terms of practical knowledge, the Spanish CDIs emphasized the need for better knowledge about food processing legislation, as well as knowledge about business development and maintaining a viable business over time.

### Pathway towards action

Living Lab at IrsiCaixa identified an interest to look at the training opportunities regarding courses which could integrate transdisciplinary teaching and learning methodologies. In addition, they also highlighted at the Summer School that *“analys(ing) business models for Living Labs and offer(ing) us support (for Living Labs and our case studies)”* was something the CDI was hoping to get out of FOSTER.

"The knowledge we need is now split among the different courses. It would be interesting to design and implement a course that integrates all these needs. ***It would be interesting to explore a possible collaboration between our Living Lab at IrsiCaixa and a local university in Barcelona, to offer such a course.*** We could also partner with an international university and offer the course online".



## 2.4.3. Knowledge needs and gaps: NETWORK KNOWLEDGE

In terms of network knowledge, the Spanish CDIs highlighted that sometimes not finding the right partner for an idea represented a barrier. They explained that sometimes, to achieve a goal, one needs to choose a work-around path and work with someone else who shows an interest in the goal, rather than hitting the head against the wall trying to convince actors who show no interest in the goal or product.

### Pathway towards action

The CDIs saw some potential for these network knowledge needs to be addressed within the FOSTER project. Fab Lab, for example, emphasized that they saw *“connecting policy makers with local technology researchers through activities*



and open discussions” as a potential action for Task 3.3. In addition, they highlighted during the Summer School “Facilitation of interactions between CDIs and organizations that have not worked together before”, as well as “Organization of focus groups – understanding of needs” as key learnings they were hoping to get out of FOSTER.

Finally, during the Summer School Fab Lab Barcelona named two main learnings on how FOSTER can best help:

1. Generation of knowledge – Summer school;
2. Glocal Inspiration.

Furthermore, Living Lab at IrsiCaixa named three additional learnings how FOSTER can best help:

1. Define the System of Living Labs that is needed in every region in Europe (with different typologies of CDIs);
2. Analyse digital solutions that can facilitate the Living Labs activities, which can help to improve their Digital Platform;
3. Advocacy for Policy Makers in every CDI’s area and at different levels;

Also, these aspects are of interest to be taken on board regarding the follow-up activities.

## 2.5. Germany: Food Policy Council City Region Stuttgart - ERS

The Food Policy Council City Region Stuttgart (German abbreviation: ERS) was recently founded as an organization in 2021 and since then has been developing rapidly. The ERS mission is to transform the food system in the city region of Stuttgart towards the production and consumption of regional, organic, sustainable, and climate-friendly food (Prüse et al., 2023).

ERS provided insights on four main categories: network knowledge, systems knowledge, knowledge transfer and practical knowledge.

### 2.5.1. Knowledge needs and gaps: NETWORK KNOWLEDGE

“And of course, we are also very interested in this **stakeholder assessment**, in cooperation, as I have already mentioned in an email. Because that is also an important prerequisite for us to make progress. Because in the fall, now after the summer break, we actually want to establish this actual Food Council as a meeting of the various stakeholders. We are only a small association at the moment. We are setting up the structure, but **we want to get the players around a table or various tables in order to develop the food policy strategy**. And the stakeholder assessment is important here, but the scientific level is also very important.”



“internal communication (...) we definitely try to involve the members, as well as the Executive Board, in things (...) but we cannot communicate all topics in detail to everyone. We try to find a measure that makes sense to us, because we are the ones who have an operational share of the job. (...) And perhaps it is definitely a point that we should include on the agenda of the next meeting in a small group or perhaps also in a group of members, so that **we can find out exactly: Who really wants to be actively involved and to what extent, who wants to be informed and to what extent, which areas are important to communicate and which areas are less so**”.



The ERS mentioned numerous knowledge gaps related to network knowledge. A key knowledge need for the ERS is to better understand the key stakeholders they need to work with to achieve their vision. Another need that emerged was the need for more effective internal communication and the need for better understanding who requires or desires what knowledge and what level of information (note that this was categorized as a network knowledge need, as it is about the question of ‘who needs to know what?’).

## Pathway towards action

[For the stakeholder assessment] **"Difficult because there is no third partner for whom it might be interesting".**



**"The development of an ERS Mission statement** could be an action project".



[As part of networking and communication] **"an additional conference** on FOSTER at the fair of Slow Food April 2025 in Stuttgart".



[As part of finding its own approach] **"Maybe but it is more a long term project. To find a good place in the structures.** ERS as NGO or as part of the city administration".



The ERS concluded that neither of the identified network gaps would lend themselves for an action within Task 3.3. Even though stakeholder mapping was identified in the Summer School as a potential learning the ERS was hoping to get out of FOSTER, and the ERS also emphasized during the Summer School that they were hoping to use FOSTER for "Networking and raising awareness on different levels / in different communities: Landscape; planning, agriculture, catering, climate protection, science", they stated that this topic might not lend itself as an action for Task 3.3., given that such a stakeholder mapping would not involve a third party (which is a requirement for the action in Task 3.3). While the internal communication need also is something the ERS says they need to address themselves and it would not require involvement of additional parties.

### 2.5.2. Knowledge needs and gaps: SYSTEMS KNOWLEDGE

"I have to say that **we're also lacking science. In other words, truly interdisciplinary science.** There is a great, top agricultural faculty, plant cultivation, plant nutrition, business management, they save the whole world, every generation differently, and there are the social sciences, there is biodiversity research, i.e. agricultural biology. **But there is not the food systems bracket".**



"So that (the food policy strategy) is simply the bracket. Which we really want to fill with content and structures. There is no blueprint for this. (...) So far, nutrition strategies have looked very different. **We would actually like to include the social sciences in this. Especially to include this social aspect of responsibility and dealing with food and, above all, neighbourhood projects or urban gardening projects.** (...) So that's certainly a very big chapter that we can only tackle in the medium term".



"So the knowledge that I lack, for example, are the **administrative processes".**



"(...) that we have **to learn to deal with a globalised food system at a local level too".**



"This also means that we **want to bring together these currently very separately perceived areas of production**, agricultural production yes (...) with the daily consumption of it".



The ERS mentioned numerous important systems knowledge gaps, both in terms of the need for truly interdisciplinary food systems research (which they diagnose as lacking), as well as the need to include social dimensions in nutrition strategies and in the work of food policy councils (which they also diagnose as lacking). In addition, they also emphasized the lack of connection between food production and consumption, which they see as a key part of their own mission. In other words, the ERS intends to bring a food systems perspective into their local context.

Another systems knowledge gap that emerged was related to understanding the governance processes that are in place in the local context of the ERS – so how do policy processes work and where in the system does one need to intervene?

### Pathway towards action

"Maybe **develop a project together with a foundation in the relevant social sector**".



"Perhaps it is **worth to discuss new participative communication methods**".



As a possible pathway towards action the ERS proposed the use of participative communication methods as a potential tool to bring different actors in the local food system together. They also said that they as ERS hold important knowledge about all the different actors in the local food systems and that "this knowledge needs to leak into public, which is the task of us as food policy council platform". To strengthen the inclusion of social dimensions in the work of food policy councils, the ERS suggested that maybe they could develop a new project together with a foundation in the relevant social sector.

Regarding the need for better understanding of policy processes, the ERS mentioned that they already have a contact point in the city administration, which acts as their "*distribution point*" for involving the administration in the ERS topics and operation". But they were also wondering whether any best practices existed within EU food systems or in research on this topic that could be learned from within FOSTER.

Finally, regarding the need for more interdisciplinary food systems science, the ERS sees an important role for the FOSTER project to fill this gap, emphasizing that this needs to happen in collaboration with practitioners from the entire food system value chain.

### 2.5.3. Knowledge needs and gaps: KNOWLEDGE TRANSFER

"My biggest shortcoming is actually **consumer awareness** (...) to do with agriculture, with our food in the canteens, there is simply a big gap in the perception, in the penetration of the topic in society. If there is greater acceptance, we will have mapped it in politics or policy, then we will have mapped it in the administration and we can orientate the companies towards it. (...) **we should also be involved in the transformation of agriculture through education and information**".





Consumer awareness as a shortcoming was noted by the ERS team.

## Pathway towards action

Even though we categorized the need for increased consumer awareness as a knowledge transfer need (as the knowledge exists but does not reach the intended target group), the ERS saw this need more in practical terms, as a need for effective communication (see below for possible action pathways to address communication needs).

### 2.5.4. Knowledge needs and gaps: PRACTICAL KNOWLEDGE

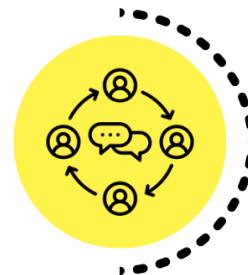
"Yes, also the communication strategy. So we really want to... (...) **plain language, plain speech, so that we communicate in a way that everyone can understand.** That worked out once at the street university. Where we really have to explain in three sentences why it's better to eat regional, organic and seasonal food".



"(...) How can we communicate the benefits for the various stakeholders? So that they recognise the benefits of getting involved in the Food Policy Council and **what could the communication to these stakeholders look like? And the formats that we offer, so that the stakeholders feel addressed and then feel like joining in and contributing their expertise.**"



"We have the situation that we are often perceived as a consulting institute, nutritional counselling, and that is our core problem a bit. But **we are a Food Policy Council, we intervene in food policy.**"



In terms of practical knowledge needs and gaps, the ERS especially mentioned the need for (more) effective communication skills. Communication gaps were identified, for example, in terms of communicating to the public and to relevant stakeholders about what the Food Policy Council is all about. This need is related to the problem that in German the term 'food policy council' is translated as 'Ernährungsrat', which means something like 'nutrition council' - so many people mistake the ERS for a nutrition counselling service. A related practical knowledge need was about effective communication to activate relevant stakeholders. And finally, the ERS also emphasized the need for effective communication in plain language (about sustainable consumption choices) to motivate the general public and consumers.

## Pathway towards action

[As part of networking and communication] **"an additional conference** on FOSTER at the fair of Slow Food April 2025 in Stuttgart".



**"The development of an ERS Mission statement** could be an action project".



[Getting to know] **"any expertise in plain language ...to the target group consumer in science context** (food system science) available/ known".



[As part of finding its own approach] **"Maybe but it is more a long term project. To find a good place in the structures.** ERS as NGO or as part of the city administration".



The ERS suggested that developing an ERS mission statement could potentially be an action to work on within FOSTER and which could help communicating about the work of the ERS more effectively. The ERS added that "it (the mission

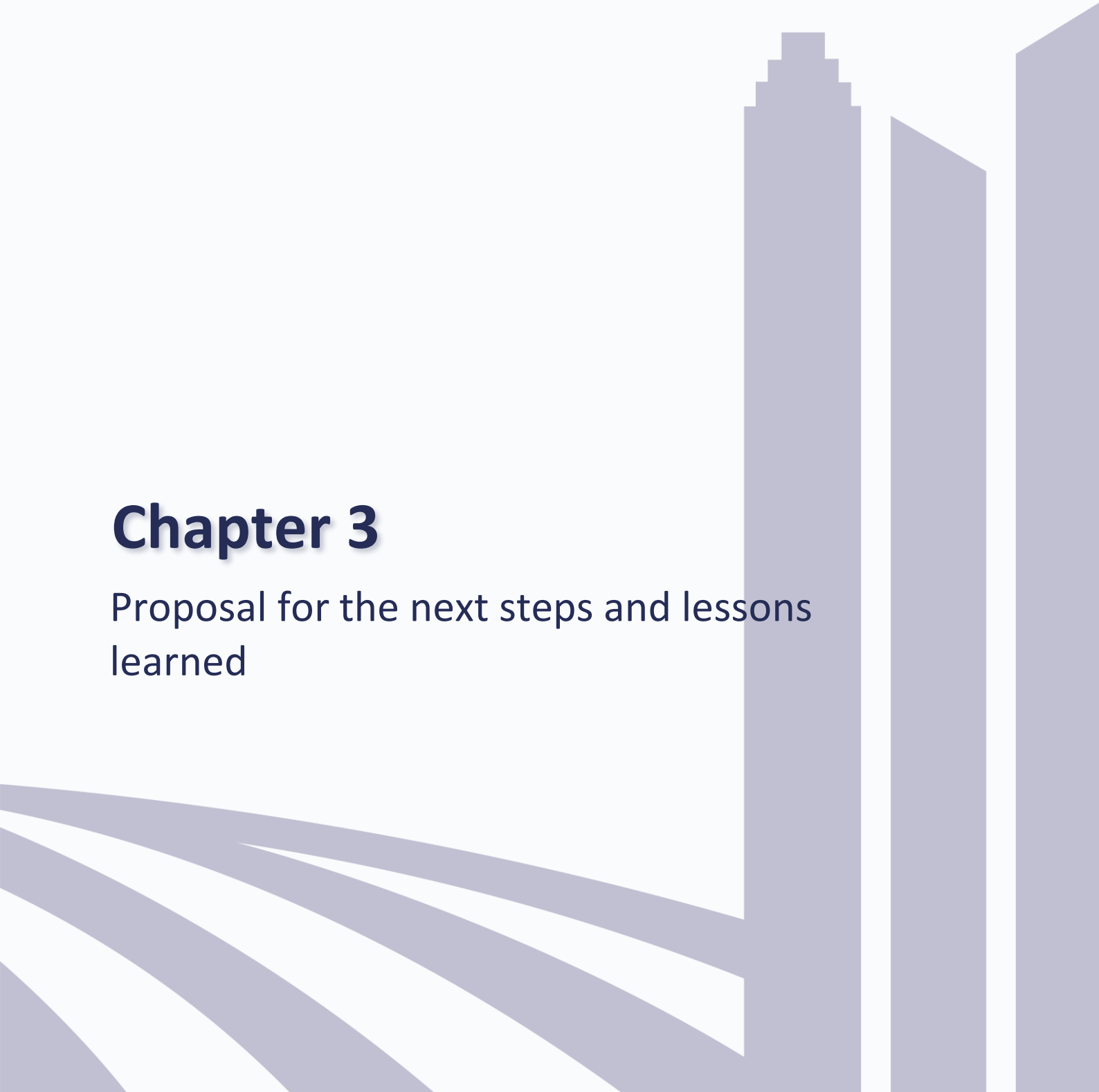
statement) could be a developing picture based on the progress of the ERS during the elaboration of the food strategy". On the other hand, the ERS suggested that finding its own approach was important, but potentially difficult to address in collaboration with FOSTER, as finding a place within the existing structures (e.g. whether the food policy council would continue as an NGO or eventually become part of the city administration) was a more long-term project that would not fit with the FOSTER project timeline.

In terms of more effective plain language communication to consumers, the ERS wondered whether any scientific expertise on this topic existed. The ERS also mentioned during the Summer School that "News from science & research partners and "translation" for civil society / stakeholders" as well as "Closing the gap between knowing and acting. How can consumers (and deciders) be informed and convinced for regional and ecological grown food....and healthy soils", were learnings they were hoping to get out of FOSTER. Similarly, the ERS also mentioned "communication to policy makers" as something they were hoping to get out of their work in FOSTER. This supports this topic as a potential action within FOSTER.

Finally, the idea was suggested to potentially use the Slow Food conference in April 2025 in Stuttgart as a platform to communicate about the work of the ERS.

# Chapter 3

Proposal for the next steps and lessons learned



## Chapter 3 – Proposal for next steps and lessons learned

Since the FOSTER project has been set up to adapt K&I systems to become more inclusive from the perspective of non-academically affiliated stakeholders, the efforts at identifying 'knowledge needs and gaps' from the perspective of the CDI partners in FOSTER together with academic partners, reported on here, presents an example of how interactions between different types of knowledge can be developed.

The following section starts by outlining the next steps ahead in WP3 and beyond and how some of the knowledge needs and gaps identified could potentially be addressed within FOSTER (section 3.1). Chapter 3 takes a look both at the interlinkages with the activities taking place in the other WPs, and activities taking place for Task 3.3 and 3.4 within WP3. This chapter then continues with some reflections on how science and the K&I systems might be able to address the knowledge needs and gaps of CDIs identified in this report (section 3.2). The chapter concludes with some reflections on key lessons learned during the highly interactive and iterative process that has resulted in this deliverable (section 3.3).

### 3.1. Closing CDI knowledge gaps within FOSTER - next steps for WP3 and beyond

Chapter 2 conveyed insights in the knowledge needs of each CDI. These form starting points for joint actions (Task 3.3). In FOSTER context, these activities are practical efforts that invite academic partners and CDIs to work together in resolving them. Each CDI has provided preliminary ideas on potential activities which have their interest. These activities are listed in the section *Pathways towards action* (Chapter 2).

As the precursor to Task 3.3., Chapter 2 serves as the entry point to discuss which needs can be translated into action. They serve as a starting point for dialogue between the CDIs and their respective APs on how to approach these needs through the identified potential activities. Some activities will be case specific, whereas others will be of a more generic nature, especially if they concern needs that address systemic barriers. As a next step, CDIs, APs, and WP3 will co-design a detailed protocol for elaborating these activities in Task 3.3. How exactly Task 3.3 can be implemented to address the knowledge needs and gaps identified, and contribute both to the CDIs' visions, as well as the FOSTER narrative, is up for discussion. Regardless of their actual shape and approach, the activities will provide a basis for exploring transdisciplinary collaboration and are expected to yield lessons for all the parties involved. Furthermore, the activities are expected to serve as a 'pars pro toto' for studying how in practice existing paradigms in knowledge creation can be challenged and knowledge co-creation between scientists and non-academically affiliated partners can take shape, providing data in answer to FOSTER's main query. T3.4, which includes various ways of reflexive monitoring of the interactions influencing knowledge flows will be instrumental in this.

Task 3.4 will take shape in parallel with the actions unfolding in Task 3.3 and will record and critically reflect on the dynamics these will incite. To that end, in each case study, CDIs and APs will be asked to regularly produce a reflection report, shaped in a format based on the method of Dynamic Learning Agenda (DLA) construction as elaborated for Reflexive Monitoring in Action (RMA; Van Mierlo et al., 2010). DLA is a method for challenge-driven reflection and learning centred on questions articulated by participants involved in a process of radical change. Monitoring these questions can provide a detailed overview of the barriers that participants struggle with at any given phase in a project, which thereupon can be put on the agenda for further exploration and addressing (Regeer et al., 2009), or on the agenda of other parties identified as (potential) change agents in view of some identified system barriers (Loeber et al., 2007; Loeber et al., forthcoming).

Via formats designed for the Reflexive Monitoring, participants will be invited to describe and reflect on both the activities they are doing, and on the relational aspects of collaborating across epistemic boundaries of CDIs, APs and external stakeholders, and the impact these have on the activities undertaken. WP3 will analyse these self-reported reflections to get an overview of barriers and opportunities for increasing knowledge flows that potentially challenge existing paradigms in knowledge creation (and possibly contributing to paradigm change) and for making the knowledge systems informing food system dynamics more inclusive through such knowledge co-creation. Based on the analysis of collaborative practices in knowledge co-creation and the 'transformative potential' of the activities undertaken, WP3 will provide feedback to those involved as a basis for reflection on both the activities and the quality of collaboration in view of an activity. The feedback is intended to inform adjustments in the activities and/or the collaboration undertaken, and revisions of underlying (often tacitly held) assumptions, which – in turn – will inform further self-monitoring. Additionally,

in the Dutch, German and Serbian case, audio-visual tools in form of ethnographic film materials will be used for framing reflections that inform “eye-opener” workshops.

As concern the selection of specific activities for T3.3., for some CDIs (e.g. PLP, ERS), the section discussing *Pathways towards action* already includes several potential actions whereas for others (e.g. TcV, Delta Foundation), there is as yet no clarity on possible collaborative actions of interest. This presents an opportunity for the APs in collaboration with the CDIs to articulate (as part of Task 3.3) as starting points for joint action in the FOSTER setting. Furthermore, WP3 has intentionally included the CDIs’ presentations from the first Summer School as data set, in which they shared how the FOSTER project might help the CDIs according to the needs identified by the CDIs. Although some of these contributions are not related to knowledge needs, these are needs to consider for other WPs in the FOSTER setting.

As part of Task 3.3., the following criteria were established for prioritizing which action to select from the ones listed in *Pathways towards action* and the Summer School presentations:

1. Actions must fit ambitions and plans of the CDI concerned (see Deliverable 3.1. (Prüse et al., 2023));
2. Actions must fit ambitions and objectives of FOSTER (see FOSTER narrative, section 1.1);
3. Actions are targeted at including a 'third party' that is, those actor groups in relation to which (and sometimes on behalf of which) a CDI identifies its mission and actions, e.g. in the case of PLP, small-scale producers; in the case of Delta, farmers in remote areas;
4. Actions must enable interaction and knowledge exchange between CDI, AP, and 'third party/parties'.

## 3.2. Closing CDI knowledge gaps within the K&I system

*“At first, it appears that it's the parts of the system that must be made better or fixed. Then it becomes clear that the system is not in the parts. It's in the relationships between them. So, it seems like it's the relationships that need to be made better or fixed. But relationships, it turns out, are made of communication. And then the communication becomes the place to address the needed adaptations. And then you realize what is communicated is not what is expressed or even what's not expressed. It's what it was possible to express. That's where the limits move, in the combining. How shall I tend to the premises of what is possible to communicate?”*

*Nora Bateson, To Live In Another Way. Combining (2023)*

As identified in the FOSTER proposal: “the key innovation issues (...) is in the 'how'. This is based on two main principles: (i) relevant present and future stakeholders are strongly integrated in project activities from day 1 to best align the process and the outcome (principle of responsible research and innovation); and (ii) activities are done in co-creation and co-learning processes which are supported by a scientific reflection and assessment, an integral part of FOSTER”. Importantly, already during the composition of the FOSTER consortium, the project partners noted the need to: “explore, understand and implement the impact and interlinkages of other systems such as social systems, health systems, energy systems or policy systems on/with our food systems, including citizens and other non-academically affiliated actors who work as innovators in the food value chain” (ibid.). By looking at the expressed knowledge needs and gaps, the diversity of interlinkages with the food system become clear. This is to do with the fact that the CDI partners can be understood as acting as intermediaries (Kivimaa et al., 2019) between actors engaging in “on the ground” activities (farmers, producers, sellers etc.) and institutional stakeholders, e.g. municipalities and universities. CDIs can be seen as network intermediaries that connect universities and research centres, local market managers, and farmers, as well as local governmental and non-governmental structures, technology companies, educational and non-profit organisations, Living Labs, system innovation network, conferences (e.g. Living Knowledge Conference), and other CDIs. This implies that each of the CDIs plays a role, when articulating knowledge needs and gaps, in conveying knowledge resources as well as knowledge gaps of these ‘third parties’, which may support approaches and activities to address these.

Systems are relational entities (Teixeira de Melo, 2020). As noted above (section 1.1), FOSTER assumes that the behaviour of complex systems can be changed by changing the relationships and communication between a system’s elements (cp. Kok et al., 2021). Scientific practice, historically based on a mechanistic paradigm, has often sought to simplify complexity by isolating and controlling elements of systems, changing system behaviour by direct linear/causal interventions (Capra & Luisi, 2014; Teixeira de Melo, 2020). These are first-order changes, which change the output of the system but not necessarily the functioning of the system. This is captured in the medical idiom as “treating the symptom but not the disease”. The challenge of FOSTER is to actually engage with a complex system on higher orders and question linear interventions, when we ourselves have been largely trained in reductionist thinking and we work in a context that

demands “scientific” (quantifiable, causal) output. The desired paradigm shift is not only somewhere outside, it is also in us.

### 3.3. Lessons learned

During the work as part of Task 3.2 (nearly full six months), WP3 was able to meet CDIs on a regular basis, which allowed us to observe and reflect on several important potential challenges regarding collaboration across a multi-actor environment.

#### Structure/formalized approach

It should be noted that simply going through the process of Task 3.2 (e.g. participating in the focus groups) already helped stimulate thinking on possible CDI-AP joint actions, with ideas developing out of discussions that took place before the needs analysis was completed. This might be due to the differing timescales or decision-making processes of CDIs and APs, with CDIs operating on a shorter turn around, seeing an opportunity and “striking while the iron is hot”. This brings us to the realization that collaborating with practitioners requires more flexibility in our academic working approach, as the CDIs are working on the ground, where each of their actions interweaves closely with multiple stakeholders. While – in contrast – the timelines of academics are rather fixed and determined by project timelines and funding calls, but they are not directly interlinked with many other actors or linked to concrete things (e.g. policy processes, societal debates) happening on the ground.

#### Giving time for feedback

One of the challenges in the project is somehow matching the fast-moving tempo of the CDIs with the slower pace of research. The needs assessment was completed almost a year after data collection had started, which can at times mean that some topics within the CDI or key people have changed. So, having results faster might at times have been useful. At the same time, taking slow steps was crucial to create an iterative, inclusive process that allowed people with different time capacities to be involved. Further, longer time spans created the opportunity for consultation of CDI representatives with more members of their organization.

#### Inclusive language

Using inclusive language and acknowledging CDIs as valuable knowledge holders does not necessarily result in equal knowledge exchange. Within the process of Task 3.1 and 3.2, several discussions were held on adjusting language, such as the move towards ‘mutuality’ or the move away from referring to academic partners as ‘knowledge partners’, in order to acknowledge CDIs as equally valuable knowledge holders. However, due to the structure of the project as being tied to proposals and strict guidelines, and due to the language used by WP leaders, who are exclusively academics, further actions are needed to move from inclusive language to inclusive actions. In the steps ahead, we learned that in the follow-up work, we will need tools and actions to actively create more space for greater CDI participation in decision-making processes e.g. in designing the action research protocol for Task 3.3, or which actions to prioritize as part of Task 3.3.

#### One-to-one meetings and direct communication

As indicated in the methodology section (Chapter 3), the report was built on numerous iterative steps and required direct follow-up with each respective CDI partner. The WP3 team noticed the need to have smaller steps with each iteration rather than large documents as discussion starting points. For this reason, the choice was made to crystallize and summarize the sharings as much as possible. A take-home message from working on Task 3.2 was the need for direct, personal, and open communication with the CDIs, e.g. follow up sessions, direct calls, or email exchanges.

#### Terminology

As part of Task 3.2. via the numerous meetings, the author team noticed the different applications of the term: Academic partners. We therefore outline here the clarifications and provide additional terms. Across the FOSTER project there are APs, which are linked (bound) to their respective CDIs (see Deliverable 3.1), i.e. these academic institutions are partnering directly with CDIs. However, we noticed the additional application of the term AP for other academic institutions that are part of the FOSTER consortium, but which are not directly involved in a case study and interlinked with a specific CDI. For this reason, the authors propose to use Associated Academic Partners (AAP) for academic institutions which do not have a direct case with the CDIs - these include VU, DIL, UOXF, SPI.

## Reaching different perspectives within the CDIs

We often talk about the CDIs as though they are monolithic, but in fact, they are organizations made of people with different perspectives and it is difficult to capture this with the constraints of a summarizing document and limited contact points. One thing that the CDIs have in common, is that they all consist of participants who are involved in a variety of tasks and have varying time availabilities. In most cases, at least some are volunteering, some are students (interns), and others are paid employees. In the focus group discussions, the author team tried to give space to different perspectives within and about the CDI. In the further steps, we worked closely with one or two CDI representatives, who sometimes included fellow CDI representatives in the feedback process. Limiting the number of people that we asked to be involved, is important out of respect for our partners' time. What can be improved in next steps of the joint research is to focus on a smaller number of dedicated topics with a wider group of CDI representatives. This might bring in new perspectives and more ideas on how to address these topics.

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