Deliverable 8.2

Report on tasks 8.1-8.5

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Summary

This deliverable summarizes central tasks handled by work package (WP) 8 in FIT4FOOD2030. WP8 is dedicated to learning for transformation, and encompasses tasks for stakeholder engagement and network building, visioning, theories of change, as well as learning and reflection within the project. The tasks are outlined in more detail in the subsequent chapters; the following sections highlight key findings in each area.

Visions

Tracking of visioning throughout the project shows a high degree of alignment between visioning generated within the project and the emphases of the FOOD 2030 policy framework.

The vision generated by the consortium at the outset of FIT4FOOD2030 served an important function in aligning and engaging consortium members at the beginning of a new, ambitious and complex process for transformative change. In line with the FIT4FOOD2030 project's theory of change, emphasis is particularly on responsible research and innovation (RRI) principles and on the importance of reflexive capacity, mutual understanding and cooperation, and barriers in the form of conflicting interests and inequities are either seen as surmountable or outside the scope of the vision.

For City Labs, visioning helped to engage and motivate stakeholders around shared objectives, and to form a basis for analyzing competence needs and – as a response to these needs – starting to design educational modules. For Policy Labs, visioning activities usually coincided with systematic mapping and analysis of national food systems, with their particular strengths, challenges, knowledge gaps and opportunities. Coordinators consistently report that the combination of these activities represented a solid foundation for subsequent work, which sought to define specific research and innovation (R&I) agendas and receptiveness to experimentation in response to the normative signals of the vision and the knowledge-basis represented by the mapping activities.

Theory of change

The instruments for change emphasized by the lab coordinators resonate to a high degree with those implied by the FIT4FOOD2030 project's theory of change. In sum, focus is placed on knowledge building and dispersion, motivation, inspiration, and networking, and the introduction or strengthening of more collaborative or co-creative work forms. Of the more significant outcomes or impacts of the project so far, is that its theory of change and its associated work forms – with more collaboration and co-creation involving a broader stakeholder involvement – have become more established across Europe.

Stakeholder engagement and network building

There is a steady increase in the number of stakeholders associated with the project over time, with a total of 1490 registrants in the stakeholder database as of September 2020.

There is consistently high diversity in representation of different sectors among the various stakeholder types.

The high diversity of stakeholders engaged can be attributed to City and Policy Lab coordinators' awareness of the importance of diversity and ability to engage with a wide range of audiences.

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The project has managed to engage with a large number of “unusual suspects”, i.e., stakeholders not usually included in food and nutrition research or innovation-related processes. Unusual suspects exist within each of the main stakeholder categories. These actors represent a wide range of competencies and organizational focus areas, suggesting the representation of relevant niche activities. Moreover, “unusual suspects” stand out as having a markedly higher degree of engagement with FIT4FOOD2030 than other stakeholder categories.

The Sustainable Food Systems Network was launched as recently as August 2020 and has gained almost 600 registrations over its first month of activity.

Learning and reflection

The learning taking place in the project is mainly challenge-driven and problem-oriented. This fits well with the original idea that learning is essential to the project in order to handle the unexpected challenges that a project like FIT4FOOD2030 must necessarily involve. The challenge-driven and problem-oriented dimension of learning accounts for the high degree of self-initiated learning being observed. A further point to be noticed, is the productive interaction between more organized trainings and dialogue sessions, and the informal, spontaneous or self-initiated dialogues taking place. The latter may be seen as a form of self-organized learning. The formally organized DLA sessions seem to have had a significant function, allowing the city and Policy Lab coordinators respectively to experience themselves as a Community of Practice, and a forum for reciprocal support and empowerment.

While much of the explicit learning focus in the project was directed at first order learning, such as how to organize a workshop, or how to approach a stakeholder, there were also an ongoing second and even third order learning among the coordinators. This has to do with the high degree of autonomy that the labs were granted in setting up their labs within the larger context of the FIT4FOOD policy framework. This autonomy forced the labs to continuously reflect on the consistence – or lack thereof – between this larger framework and their own priorities (“Are we doing the right things”), and even third order learning (“How do we decide what is right?”).

The report concludes that the project is on a positive course to fulfil its objectives.

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1. Introduction

FIT4FOOD2030 supports the European Commission's FOOD 2030 policy framework. The main objective of FIT4FOOD2030 is to build a sustainable, multi-stakeholder FOOD 2030 Platform, mobilizing a wide variety of stakeholders from different sectors at the level of cities, regions, countries, and Europe. To reach this main goal, FIT4FOOD2030 aims to (1) strengthen R&I policy coherence and alignment (2) build competencies for food systems R&I, and (3) raise awareness. The platform comprises of three interlinked structures: EU Think Tank, Policy Labs and City/Food Labs. The function of the City, Food and Policy Labs are explained in box 1.1 below:

Box 1.1: City, Food and Policy Labs

City and Food Labs

The project includes 14 regionally oriented Labs. The first seven, included in the project from the start, are called City Labs, while the rest, included in the autumn of 2019, are referred to as Food Labs. The task of these Labs is to bring together policy makers, researchers, educators and citizens from all walks of life, creating joint action towards a more sustainable Food System, with a regional focus. An important objective is to develop and pilot hands-on (in)formal training of students, research and professionals.

Policy Labs

The project includes 11 Policy Labs at the national level. Seven Policy Labs were established at the beginning of the project, while four more Labs were added in the autumn of 2019. They aim at systematic dialogue and co-creation with key stakeholders (science, industry, policy and civil society) to inform the R&I policy programmes of national government and private parties, such that R&I activities have a maximum impact on local, regional or national food system goals. Due to different local contexts, the focus of the Policy Labs varies; some focus on organising national meetings with stakeholders to discuss current challenges and align regional approaches, while others work towards an integrated Food Policy, supported by an R&I agenda.

This report gives an overview over some central tasks handled by work package (WP) 8 in the project. These are:

- Task 8.1 Setting up a Dynamic Learning Agenda
- Task 8.2 Monitoring the evolving network
- Task 8.3 Monitoring actor diversity and dynamics
- Task 8.4 Monitoring emerging visions and theories of change
- Task 8.5 Experiment-to-experiment learning

The report consists of seven chapters.

- This introduction (Chapter 1) gives an overview of the FIT4FOOD2030 project and how the tasks just listed reflect the underlying logic of the project, or its theory of change.

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- Chapter 2 contains an extended presentation of the theoretical background for large-scale transformation projects with an emphasis on theory of change, and the more specific theory of change adopted by the project.
- Chapter 3 describes how the network constituted by the project has evolved, with its actor diversity and dynamics (Task 8.2 and Task 8.3)
- Chapter 4 presents emerging visions within the project (Task 8.4)
- Chapter 5 presents emerging theories of change among project members (Task 8.4)
- Chapter 6 describes the learning within the project, with a special emphasis on the Dynamic Learning Agenda (DLA) (Task 8.1) and the experiment-to-experiment learning (Task 8.5)
- Chapter 7 contains analysis, reflection and concluding remarks.

This report focusses at selected aspects of the FIT4FOOD2030 project, as specified above. For more information of the project as a whole, please consult the project's website, https://fit4food2030.eu/

As part of WP8's monitoring of the project different types of data have been collected. An overview of the data and the data collection methods used may be found in Appendix 1. When other data sources have been use, the source is explicitly stated. In addition to data collection, WP8's monitoring has involved analysis and reflection, which have been fed back to the project at intervals to enhance reflection and learning. This report, too, contains analysis and reflection, with a special emphasis on the change instruments implied by the project's theory of change, with lessons learnt, and implications for similar projects in the future.

The challenge of large-scale transformations

Central to the analysis of this report, stands FIT4FOOD2030's theory of change, which forms the conceptual framework within which the other topics of this report are analysed and discussed. This paragraph gives a first brief presentation of this theory of change.

The conceptual and scholarly background of the design of FIT4FOOD2030 can be found in several strands of literature concerned with food and sustainability, research and innovation, the efforts to respond to societal challenges, and how to support the transition towards better and more responsible futures.

Societal challenges such as climate change, public health, and unsustainability tend to take the form of wicked problems that are characterized by interconnections, uncertainty, complexity, and contested definitions (Head, 2018, cf. also Rittel & Webber, 1973). Such problems are not amenable to top-down or monodisciplinary solutions, which may introduce their own blind spots, unintended consequences, and lack of legitimacy. This is recognized in areas like sustainability transitions research, which have emerged in response to "scientific and public interest in large-scale societal transformation toward sustainability" (Loorbach, Frantzeskaki, & Avelino, 2017).

Interdisciplinarity and inclusion are woven into the thinking in these fields, which are said to require a "multidisciplinary systemic lens capable of appreciating the interconnectivity of economic, political, social and ecological issues across temporal and spatial dimensions" (Williams, Kennedy, Philipp, & Whiteman, 2017). Analyses of how science and technology co-evolve with societal change show the synergies between different levels, such as those of niche-innovations, sociotechnical regimes and sociotechnical landscape in the multi-level perspective, or MLP (Geels & Schot, 2007, p. 399). Efforts to nudge research and innovation towards more societally desirable ends are seen in the emergence

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of responsible research and innovation (RRI) which advocates for integrated attention to multiple dimensions, including anticipation, reflection, engagement and action (Owen, 2014).

The policy and governance uptake of such thinking are increasingly being observed in various co-management structures that include "knowledge co-production, mediation, translation, and negotiation" in response to complex problems (Cash et al., 2006). Transition management, as a model of governance, stimulates gradual and reflexive change at multiple levels, "using visions, transition experiments and cycles of learning and adaptation" (Kemp, Loorbach, & Rotmans, 2009, p. 78).

As stressed by Rotmans et al. (2001) governments and public policy actors can guide transition processes through external entities that include new and diverse actors including marketplace actors and producers alongside researchers, consumers, and other voices to deliberate on future scenarios (Rotmans et al., 2001, p. 31). This trend is visible both on local, national and international levels, where transformative networks and experiments, like FIT4FOOD2030, are established and used to evaluate and/or implement innovation policies, informed by transformative science (Loorbach et al., 2017, p. 617).

Theory of change

Theory of Change is a specific type of methodology for planning, participation, and evaluation that is used to promote social change. Theory of Change emerged from the field of program theory and program evaluation in the mid 1990s as a new way of analyzing the theories motivating programs and initiatives working for social and political change (Funnell & Rogers, 2011a). Theory of Change is focused not just on generating knowledge about whether a program is effective, but also on explaining what methods it uses to be effective. Weiss popularized the term "Theory of Change" as a way to describe the set of assumptions that explain both the mini-steps that lead to the long-term goal of interest and the connections between program activities and outcomes that occur at each step of the way (Weiss, 1995).

The discourse on large-scale transformations referred to above implies potentially a number of different theories of change, dependent on which concepts or parts of the discourse are given priority, and the ambitions and the context of the change agents. Thus, a given transformation initiative should always try to define the specific theory of change it sees as relevant. In this paragraph we will presents some elements of the theory of change adopted by the FIT4FOOD2030 project. A further elaboration of this theory may be found in chapter 2.

A potential tension emerging when the decision to initiate large-scale transformation processes are taken at higher policy levels, is that the decision typically has a top-down structure. However, the dynamics needed for the project to succeed, according to today's policy discourse, is mainly bottom-up, involving, for instance, a broad coalition of engaged stakeholders. In order to succeed, thus, a project that seeks to promote large-scale transformation should be informed by a theory of change that gives directions for how this tension may be minimized: It should help design the process so that the bottom-up dynamics achieves sufficient strength to drive the transformation.

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FIT4FOOD2030's theory of change and how it connects to the other topics discussed in this report

From the contemporary discourse on large-scale transformation, FIT4FOOD2030 borrows the idea that change has to involve a large group of stakeholders that take an active role in developing context specific strategies and solutions, and also has an intrinsic motivation for doing this. Both the consortium partners and the institutions that were approved as hosts for the labs were selected on the basis of these criteria. In addition, the labs were to be embedded in institutional structures that granted them a certain level of status and power. For instance, the Policy Labs were typically established within the existing research policy bureaucracy of the countries or regions involved and needed the support of at least two ministries. Moreover, the City and Food labs are typically hosted by existing institutions with an established infrastructure and a certain local or regional standing, such as science museums or science centers. Through this selection of consortium members and lab hosts, that is by anchoring the project in institutions and actors already involved in the system, FIT4FOOD2030 secured a productive starting point for establishing bottom-up dynamics sufficiently strong to secure the longer term success of the project.

This approach also created a positive condition for further stakeholder involvement and network building – positive in the sense that the original key actors already had a solid position from which this could take place – and so help build the platform of engaged and interlinked stakeholders. This is another central instrument in the theory of change informing the project. To what degree stakeholders have been involved, or networks have been developed or extended, and how this has contributed to change is further elaborated in chapter 5.

Another instrument for promoting bottom-up dynamics in the project was the high degree of autonomy that the labs were granted to define their goals and strategies in their local and national contexts, as long as they conformed to the overarching FOOD 2030 policy framework. This policy, and the fact that it constituted the normative framework that had to be accepted by all prospective partners initially, may be seen as a top-down instrument, while the freedom to design local strategies on how to support this policy secured the opposite movement. In order to prevent this autonomy from generating too many unrelated processes, however, visioning was used actively as a tool. In the first phase of the project, workshops were organized to develop joint visions to guide the direction of each of the labs. This vision work also had a significant function within the project's theory of change, as an instrument for building alliances and joint forces locally, regionally or nationally. How this vision work was organized, what visions emerged, and how this has contributed to change is further elaborated in chapter 3.

Even when a project is designed with a particular theory of change in mind, one has no guarantee that every participant in the project knows or accepts this theory, or whether they operate on the basis of alternative theories. In WPs monitoring of the project, we thus also included monitoring of the lab coordinators theories of change. The result of this monitoring, with a discussion of how it may have affected the intended transformation processes is reported in chapter 4.

A further instrument for change in FIT4FOOD2030s theory of change is learning and reflection. Both due to the high level of unpredictability that permeates large-scale transformation processes, and the limited previous knowledge on how to handle unexpected challenges, the actors involved have to develop the necessary knowledge along the way, through systematic learning and reflection (Beers et al., 2016). Learning and reflection is therefore essential to the theory of change informing the project. To what degree learning took place and how this learning contributed to change, is further elaborated in chapter 6.

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This report does not address the question of longer-term impact as such, that is whether and to what extent the project will actually achieve its ambitions to help in the transition to a more sustainable food system in Europe. How far the project will contribute in that respect is for the future to judge, and on the basis of our data it would be premature to assess it. What we can assess, however, is how the instruments that were defined through the projects theory of change has functioned, and whether they seem to have led to conditions more conductive to the longer term transition that the project aims for. This question is further elaborated in chapter 7.

The COVID-19 pandemic and its effects on the project

The on-going COVID-19 pandemic has forced the project to implement some changes to planned activities. First and foremost, trainings, workshops and events that were originally planned as physical meetings, have been made digital. Since April 2020 all meetings have been digital. For the consortium and Lab coordinators, this has negatively affected the informal dialogue and the informal learning that usually happens when people meet physically, as discussed in Chapter 6 of this report. For the Labs it has meant that their general communication with stakeholders has become more challenging, and also the process of involving new stakeholders. Also, activities that involve reaching out to larger audiences, have become difficult, especially for the City and Food Labs who were on the verge of implementing a number of such activities just as the COVID-19 pandemic prompted lockdowns all over Europe. In spite of this, activities have proceeded remarkably well, even if a slight cooling effect on some types of activities has been hard to avoid.

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2. Theory of change in the transition literature and in FIT4FOOD2030

This chapter contains a more comprehensive account of the literature that inspired the project, followed by a more detailed account of the theory of change adopted by the project.

FIT4FOOD2030 was established to support the urgently needed transformation of food systems and accompanying research and innovation (R&I) in Europe, as outlined in the EU FOOD 2030 policy framework. The transition model in FIT4FOOD2030 might be explained as consisting of two parts: 1) a theory of change, and 2) a theory of action. The theory of change presents a model for how socio-technical systems are transformed while the theory of action applies to how FIT4FOOD2030 is structured and executed in order to achieve this change.

In this chapter, we will start by presenting FIT4FOOD2030 as a transformational network project. The view on sustainability transformations in the literature pivots around changes at different levels of governance. Hence, the different places for transformational change and its articulations in FIT4FOOD2030 will be examined.

FIT4FOOD2030 engages with actors central to the European food system. Figure 2.1 provides a useful illustration of the vision of transformation in FIT4FOOD2030. At the bottom are the actions made by FIT4FOOD2030. There are three interlinked levels associated with an EU Think Tank, a number of Policy Labs and a number of City and Food Labs. Each of these represent a level in the socio-technical system of food in Europe. In FIT4FOOD2030's theory of change, transitions happen when several levels in the socio-technical system move towards a common practice; otherwise referred to as multi-level perspective (MLP) on transitions (Geels & Schot, 2007)

The issue of the ceiling of accountability is central to theories of change and transitions. An accountability ceiling is often represented by a dashed line drawn across the pathway that separates outcomes the organisation will monitor and claim credit for attaining (sometimes also called their sphere of control or sphere of influence) from the higher-order outcomes that it is beyond its power to achieve. In the present context, it expresses the limit in the research and innovation system for direct effects from the actions put into motion by FIT4FOOD2030.

According to MLP, actions need to come from inside of the R&I system for transitions to occur. A theory of change then contains a description of the instruments of change and in addition, an account of the sphere within which the intervention can be expected to have direct outcomes, with a set of indicators for what the theory defines as impacts in the R&I system.

As has been discussed and as we will return to, the role of creating visions of a transformed European food system plays a significant part in FIT4FOOD2030. These visions constitute a driving force in a theory of change since they serve to align the different Labs of the project and their participants to structure their actions towards a transformative impact, i.e. beyond the ceiling of accountability.

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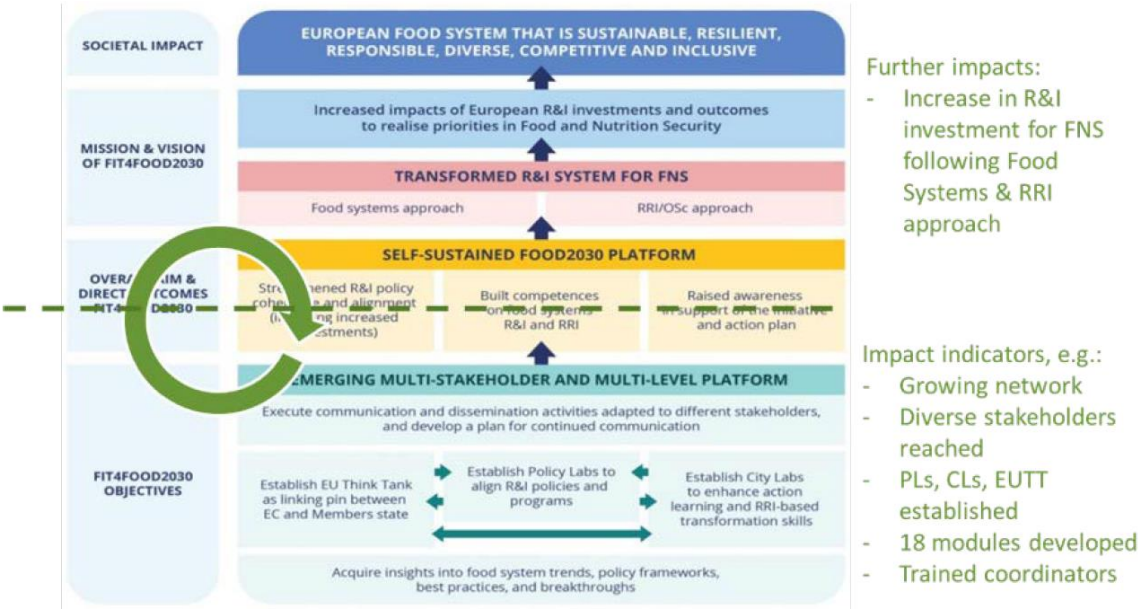

Figure 2.1: Visualisation of the ceiling of accountability in impact indicators.

Networked complex sustainability transitions

FIT4FOOD2030 addresses interlinked challenges of the European food system: the continuation on a business-as-usual path that is expected to lead to further environmental degradation and an economic structure that is prone to instability, as well as huge health burdens from unbalanced food consumption patterns. The EU FOOD 2030 policy framework has set the goals of EU food policy to be sustainable, resilient, responsible, diverse, competitive and inclusive – or "future proof", as it is called.

One early articulation of *sustainability transitions* through linking non-climate policies to climate policies can be found in the IPCC's (Intergovernmental Panel on Climate Change) report from 2001:

> *"The effectiveness of climate change mitigation can be enhanced when climate policies are integrated with the non-climate objectives of national and sectorial policy development and be turned into broad transition strategies to achieve the long-term social and technological changes required by both sustainable development and climate change mitigation." (IPCC, 2001, pp. 12-13)*

The reference here to social and technological changes through policy changes has been taken up by the discourse on innovation policies. The position expressed here is that the national and sectorial innovation policies have been attuned towards non-climate goals and not towards climate goals. Closely linked to such a point as expressed by the IPCC in 2001, is what Rip and Kemp articulated in 1998 regarding technological change related to climate change, namely that "surges of interrelated innovations occur, not of their own accord but because there are strong economic and social factors at play that serve as prolonged containment first and as unleashing forces later" (Rip & Kemp, 1998, p. 342). Accordingly, sociotechnical systems have on the one side a strong conservative force and on the other a potentially reconfigurative force. Kemp and Rip draw upon a large body of sociology of science and technology, such as works by Callon, Latour, Pinch and Bijker and, in addition, scholarship on the shifts in the "technoeconomic paradigms" as developed by Freeman and Perez

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(1988) where they emphasized ruptures in the macroeconomic conditions as the foundation for innovation and change.

After having been the approach in energy projects in the Netherlands at the start of this millennium (Kern & Howlett, 2009), the orientation towards cross-sectorial policy goals gained increased support. This position implies a novel form of governance that might modify itself based on the changes the governance induces (Kuhlmann, Stegmaier, & Konrad, 2019). As Kuhlmann and Rip account for, these changes must be understood across different actor – or stakeholder – groups in the larger sociotechnical system. This position also implies understanding the impacts of changes at different levels, i.e. introducing a multi-level perspective. As Kok et al. (2019) discuss, building on Fazey et al. (2018), understanding one's own position in change implies a second-order position whereby researchers and other actors to move beyond their traditional limited action sphere and acknowledge their mutual dependency on multiple systems in order to achieve transformations.

Why a Theory of Change?

The overarching goal of the FOOD 2030 framework is a sustainable food system. Consequently, the role of sustainability transitions and how they can take place are central to FIT4FOOD2030. A transition may take place when all actors in the food system learn how to change based on mutual understanding of their own and others' practices. Accordingly, what to learn and how to learn constitute a central dimension of FIT4FOOD2030.

As briefly mentioned, the understanding of sustainability transitions has been markedly influenced by the approach known as multi-level perspective (MLP). This approach builds upon studies of earlier changes – or transitions – in how the social and technological dynamics are interlinked. MLP posits that socio-technical systems should be analyzed as consisting of three levels: landscape, regime and niche.

Niches are loci for novel practices that are provided protection from the overall system rules. Consequently, niches are the places where innovation emerges. *Regimes* are the existing tacit and explicit overall socio-technical system rules and practices. All in all, a regime includes all the current institutions, legislation and actors, or in other words the current R&I system. A regime aims for stability, and changes and innovations are here typically small and incremental. The *landscape* consists of the socio-technical background conditions. The landscape might be supportive of a regime or one or several niches. Examples of such background conditions are the political system, climate change, economical systems and other trends and value systems. One important landscape factor that runs against the current configuration of the regime is precisely climate change, and climate change is furthermore a driver for several niches (El Bilali, 2019; Geels, 2011).

FIT4FOOD2030 – and a theory of action

Currently, in the food system there is limited attention to societal impact, and little or no active involvement of civil society in the R&I process. The current food R&I system is basically supply-driven. The ideas and interests of researchers and industry are driving the R&I process.

The actual implementation of FIT4FOOD2030 points towards a theory of action for how to achieve the envisioned sustainability transformation toward a "future proof" food system. As illustrated in Figure 2.1, there is a suggested link between the actions in the project and the impact in society. The

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latter is the object of the theory of change. What is of interest here, is the theory of action: How to achieve the desired outcomes while avoiding unintended outcomes; identify the specific internal features and external factors affecting the outcomes; and, how the project addresses its key internal features and external factors (Funnell & Rogers, 2011b). In FIT4FOOD2030, the central internal features are transformation networks at different levels: Regional level City and Food Labs, country-level Policy Labs and an EU-level Think Tank.

The City and Food Labs bring together policy makers, researchers, educators and citizens from all walks of life, creating joint action towards a more sustainable Food System. An important objective is to develop and pilot hands-on (in)formal training of students, research and professionals. The Policy Labs aim at systematic dialogue and co-creation with key stakeholders (science, industry, policy and civil society) to inform the R&I policy programs of national government and private parties. The EU Think Tank serves as a strategic hub to work towards an integrated vision of food systems and needed transformation in R&I to deliver impact.

These transformative network initiatives engage in co-design and co-learning with a wide variety of stakeholders and experts in order to develop knowledge and tools which support funding and programming authorities towards more investments and more impact of their food system-related R&I investments in support of the pillars of FOOD 2030. They take part in developing, piloting and rolling out educational modules and training materials on food systems science into the different settings across Europe based on embedded RRI principles to foster a strong multi-stakeholder engagement, critical thinking, collaborative learning skills and transdisciplinary approaches to learning.

The shared interest in the food system is the core of the theory of action in FIT4FOOD2030. This shared interest constitutes a common ground for the willingness to address challenges. In line with the literature on sustainability transformations, the different labs in FIT4FOOD2030 would work as testbeds and multipliers of novel directions for food and nutrition policy. With an emphasis on connecting stakeholders and running educational models on transformation competencies, the different labs open up for the possibility to co-create paths towards a sustainable food system transition.

FIT4FOOD2030 should consequently be understood as an experiment in transformation where the theory of change as explained in the sustainability transitions and MLP literature is connected to a specific view on how to structure the actors' actions.

FIT4FOOD2030 – its operative theory of change

FIT4FOOD2030's approach to the food system can be best understood through the three concepts of diagnosis, prognosis and treatment of the system.

The **diagnosis** is that the current food system needs transformation, and that R&I can be an important catalyst for achieving system transformation. But in order to effectively take up this role, the research and innovation system (R&I system) needs to transform as well. The R&I system consists of separate disciplines and sectors – both with respect to the policy dimension and the scientific dimension. The R&I system also lacks systematic civil society involvement. The experiences of civil society actors are rarely given appropriate weight, and they are seldom invited throughout the R&I process.

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The academic incentive structures are more rigged towards producing short-term rewards than public value. R&I funding often prioritizes mono-disciplinary research while what is needed is cooperation across disciplines. Different countries have different priorities in their national research programs and this makes it difficult to align national and international food system policies. Furthermore, few research calls are oriented towards solving societal challenges with a resulting fragmentation of granted applications to disparate projects.

This lack of integration gives a fragmented and unaccountable food system. Accordingly, the assumption is that integration provides a more accountable and more sustainable – and "future proof" – overall policy.

The prognosis might well be extrapolated from the situation analysis on the effects as presented by Kok et al. (2019, p. 1)

> *Currently, food systems account for 21%–37% of greenhouse gas emissions and 70% of freshwater use, and lie at the heart of land-use conflicts, in both the global North and South. Excessive agricultural pesticide and herbicide use further contributes to soil degradation and biodiversity loss as 16% of pollinators are threatened with global extinction. Unhealthy diets lead to the triple burden of malnutrition, with 11% of the world population being undernourished, 39% overweight, 13% considered obese, and 26% suffering from micronutrient deficiency. Diet-related non-communicable diseases (NCDs), such as cardiovascular diseases, diabetes, and certain cancers, are on the rise globally and already lead to an estimated 40 million deaths per year.*

If we continue along the current path, these effects will worsen. The **treatment** suggested by FIT4FOOD2030 rests upon the theoretical foundations of the sustainability transitions literature. It engages different levels and forms of policymaking while involving a wide variety of societal actors, including civil society, farmers and industry, through the Policy Labs, and City and Food Labs. These receive training that enable them to address the challenges. These labs, as the name suggests, are loci for experiments with regards to integration of cross-sectoral food system and R&I system polices, to develop pilots and experiments in local communities and across the urban-local perimeter. These labs function as niches in the MLP parlance. In order to stimulate learning between policy and practice, the lab coordinators exchange experiences and policy plans.

The Food and City Labs address the **lack of stakeholder engagement** and the **lack of competencies for transformation** by establishing local stakeholder networks. They hold workshops with stakeholders to **increase the competencies for transformation**. In order to **disseminate these competencies locally**, they take part in co-creating, testing, and implementing 18 educational modules that empower the participants to **influence the local and regional R&I food policy agendas**. The European dimension is secured through mutual learning and exchange between the labs.

The Policy Labs work towards **alignment of R&I policy and coherence** between different sectors at the levels of objectives, strategies and instruments, and outcomes. Specifically, these address how to move beyond **academic silos**, **the fragmented funding structures** and **revising academic incentive structures**. The Policy Labs also interact with the EU Think Tank as a means to **align EU priorities and national proposals**. The Policy Lab coordinators creation of national networks engage stakeholders and ensure sustainability of proposed policies and networks. The workshops **align different ministries on national levels** (on visioning, system analysis, pathways for transformation, and experimentation) are means to increase the competencies for transformation. The objectives of

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these workshops involves **co-creating R&I policy experiments,** such as **national transformative R&I agendas or visions**, and **nationally aligned R&I strategies** across ministries and funding programs for transformative food systems R&I.

In order to **raise awareness** of the challenges in the food system and of the proposed transformative pathways from Policy Labs and City and Food Labs, the role of the EU Think Tank is central, with its regularly published **policy briefs**. FIT4FOOD2030 also has an active dissemination strategy through the different labs but also through webinars, newsletters, deliverables, scientific articles, website, social media and an online repository of 'tools for transformation'.

Lastly, in order to ensure quality, discuss challenges inherent in transdisciplinary and participatory processes and further develop transformative capacities, FIT4FOOD2030 proposes continual monitoring for development. Specifically, the labs are invited to reflect on the ambitions of their activities relative to the institutional drivers and barriers that affect system transformation in order to **enhance the transformative capacity of R&I processes**.

In the rest of the report we will examine each of these topics in turn, and how, so far, they have contributed to the change that the project seeks to produce.

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3. Visioning

The role of creating visions of a transformed European food system plays a significant part in FIT4FOOD2030. These visions constitute a driving force in a theory of change since they serve to align the different Labs for the project and its participants to structure their actions towards a transformative impact, i.e. beyond the ceiling of accountability. The present chapter gives an overview of how visioning processes were organized in the FIT4FOOD2030 project, and what visions emerged.

A vision can take many forms, such as a formal declaration, description of a desirable future (Gaziulusoy & Ryan, 2017), or non-textual imagery (Sheppard et al., 2011). Following Trutnevyte et al. (2012) visions can be broadly understood as "the ideal-type future states of a problematic system" to which stakeholders and decision makers jointly aspire.

As has been discussed, in FIT4FOOD2030 visions are essential components for motivating and calibrating activities that relate to the project's theory of change. Formulating shared visions for the future can help diverse groups shift their focus away from conflicting interests or priorities in the present day, and towards commonly held ideas about what necessary and desirable futures may or should entail. Thus, not only the visions themselves, but also the processes through which the visions are developed, serve important roles in stimulating creativity, interaction, collaboration, and empathy within diverse groups. In this sense, visioning can be a helpful activity in its own right as a way to stimulate cooperation at an early stage of a collaborative process. This functioning of visioning in FIT4FOOD2030 mirrors the use of overarching ambitions in the 2018 FOOD 2030 expert group report 'Recipe for change: An agenda for a climate-smart and sustainable food system for a healthy Europe' (Poppe, 2018) where the overarching ambition of "a climate-smart, sustainable food system for a healthy Europe" lent focus and structure to the experts' recommendations for specific priorities and targets. Here, as in FIT4FOOD2030, visioning serves as a reference point to help steer a group's work towards an overarching aim over a period of time, while allowing adaptations as groups define new goals or discover new insights during the course of their work.

The FIT4FOOD2030 Consortium formulated a vision at the start of its work, and City and Policy Labs also used visioning to different degrees to guide their participants' engagement in lab activities. While systematic visioning did not take place in the EU Think Tank, the Think Tank did publish a Policy Brief early in the project M12 (Oct 2018), calling for a systems approach to research and innovation for the transformation of EU food systems. Development of this document was a good exercise for the EU-TT for agreeing on a common vision and developing conceptual clarity.

In accordance with **Task 8.4 Monitoring emerging visions and theories of change,** WP8 monitored visioning as an indicator of alignment around pathways to impact and instruments for change during the 1st phase of FIT4FOOD2030. Monitoring has also approached visioning as an indicator of the theories of change implicit in the discourse and practices taking place at the consortium and City Lab levels. This chapter presents visions that have been generated through the course of the project. It reflects on similarities and differences between different visions and, most significantly, reflects on the role of visioning in relation to the project's overarching ambitions and on how visioning activities can inform other large-scale transformative projects with comparable ambitions and theories of change.

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Key concepts and approach

The FIT4FOOD2030 description of action (DoA) expresses several plans and ambitions pertaining to visioning. The project seeks to deliver "a long-term vision on a sustainable food system as the overarching concept for a future-proof European food system". In the project's theory of change, as presented in the DoA, FIT4FOOD2030's "mission & vision" provide overarching guideposts against which project objectives, aims and outcomes are directed, in order to create societal impact. The potential absence of a common vision is presented in the project's methodology as a problem that the project will alleviate by approaching a more shared vision guiding the activities and efforts of the diverse range of actors that the project seeks to mobilize; "individuals with very different backgrounds and worldviews". Finally, visioning is grouped together with **system understanding** and **actor identification and mobilization**, which together make up the first of the project's for phases, indicating that visioning is expected to constitute, align, and energize the transformative network around the project. In Phase 1 of the project, shared vision development on the aspired European food system – and its corresponding R&I system – with stakeholders in the EU Think Tank, Policy Labs and City Labs was intended to ensure wider engagement with and ownership of the FOOD 2030 initiative.

Against this backdrop **Task 8.4 Monitoring emerging visions and theories of change** was included within **Work Package 8 Learning for transformation**, in order to "monitor and evaluate the extent to which visions and theories of change about food systems, corresponding R&I system, and required competencies and skills converge in the network". Emphasis was placed in the task on monitoring for potential divergences and conflicting framings of visions and theories of change within the emerging network, and, if such conflicts were to emerge, stimulating mutual learning and convergence between visions and theories of change. WP8 has approached this task with emphasis on bringing attention towards misalignments between emerging visions and theories of change within the project, and with the goal of helping to articulate the relation between these two as implied by data from project partners – including visions, event reports, interviews, surveys, DLA session content, and other material.

WP8 drew on existing research on visioning and the role of visions in transformative projects and initiatives in order to fulfil this task. Visioning activities and related foresight activities are central in multi-stakeholder processes that, like FIT4FOOD2030, aim for transformative change in relation to grand societal challenges and "wicked" multifaceted, contested, and complex problem-areas (Brown, Harris, & Russell, 2010). Visioning can help stakeholders envision both textually and visually the consequences of today's choices on the futures of specific communities, places, or institutions, and is thus useful to help direct dialogue with diverse groups towards policy- and practice-relevant recommendations (Sheppard et al., 2011). When participants are invited to elaborate on specific details of a general normative vision, such as what a low-carbon, resilient and livable city of 2040 might look like, the elaborations can make visible the specific infrastructures, support-systems, technologies, and institutional and socio-cultural arrangements which such visions necessitate, thereby revealing concrete instruments and levers for change which actions in the present may aim towards (Gaziulusoy & Ryan, 2017).

Visioning in the FIT4FOOD2030 consortium

The kick-off meeting for FIT4FOOD2030 in January 2018 devoted a designated time slot to developing joint visions that would serve to both introduce consortium members to visioning as an

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activity, and develop shared visions pertaining to central topic-areas for the project, specifically around competency development, stakeholder awareness, and research and innovation policies.

This meeting and the resulting vision are summarized in project Deliverable 2.1 Report on trends. As that deliverable shows, during the kick-off meeting participants were divided into groups focusing on competencies, stakeholders, and research and innovation policies, and provided groups with guiding questions for each theme to help group members think about desirable futures and the role that FIT4FOOD2030 could or should play in bringing those futures about. Under the general activity heading of "Imagine it is 2030 now" participants were asked, for instance (D 2.1 p. 16):

- "What strategies did FIT4FOOD2030 use to increase awareness, how did our project FIT4FOOD2030 contribute to a future-proof food system?" (on stakeholder awareness)
- "Which FNS [Food and Nutrition System] R&I competencies did we build up for researchers & students and entrepreneurs & societal actors" (on competencies)
- "What are the characteristics & content of 'aligned & coherent' R&I polices in 2030 compared with the current situation? What do they address?" (for research and innovation policies)

The vision that was synthesized from these activities constituted an early, joint set of guiding ambitions and aspirations for FIT4FOOD2030 that formed a reference-point for the subsequently articulated visions of City and Policy Labs that are the subject of this chapter. It is therefore quoted in full in Box 3.1:

Box 3.1: Sets of guiding ambitions and aspirations for FIT4FOOD2030 (D2.1 p. 16)

"In 2030 and beyond, a strong awareness of, and interaction with, society and consideration of environment, engagement of relevant stakeholders to integrate different types of knowledge has changed the scientific approach of research. The need to achieve a sustainable Food and Nutrition System has led to a sense of urgency amongst all stakeholders and to self-motivation to make a difference. The foundation for the necessary soft skills, attitudes and competencies was laid at primary levels and has reached entrepreneurs, citizens and policy.

In 2030 Responsible Research and Innovation is no longer an idea but living practice, there is no apparent hierarchy of responsibility among actors as all work together to make change happen. Relevant actors have managed to set up and keep up a dialogue to address the challenges and are able to listen to each other, are open to engage with research and are willing to learn, by also admitting "that what you do not know or cannot handle is a strength" as starting point for learning ("Golden rule of DLA").

High up on the political agenda we find diversification, integration and more social experimentation. Public and private goals are aligned and an aligned policy makes sure that integration happens across levels, the innovation cycle and across policy domains using contextualized instruments while having an awareness of societal innovation.

FIT4FOOD2030 has been one of the change agents to transform to the new competencies towards RRI citizens and to help breaking the silos in which different currently isolated actors operate."

The vision expresses several interconnected ambitions, foregrounding societal reflexivity and capacity for action, as seen in a "sense of urgency", which is expressed both on the level of the individual, and in the collective. Competencies are given emphasis as soft skills, attitudes, and on a sense of shared responsibility for activities across issue-areas and domains of expertise – with the latter now seeming inclusive of different knowledges and practices, instead of being dominated by

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any single knowledge system. For research and innovation, the vision expresses a goal for how these activities are embedded in society and the degree to which activities are attuned and sensitive to societal needs – rather than foregrounding any single individual activity, threshold or solution. With regards to the specific contents or characteristics of the food system, little is said aside from it being considered sustainable as a whole. The implicit force for change underlying the vision is shared sentiments and normative ambitions – conflicts of interests, resources, social stratification or inequality/inequity, and global-geographical disparities, are absent, while "public and private goals are aligned". FIT4FOOD2030 has influenced the state of affairs by improving competencies, targeting citizens, and enabling cooperation across silos.

City Labs: Visioning in the context of stakeholder mobilization

Aside from the consortium itself, the City Labs were the main source of visions formulated during the first year and a half of FIT4FOOD2030. During this period, City Labs conducted visioning exercises around one of more of the following topics:

- Visioning about a future-proof food system
- Visioning about the role of Research and Innovation (R&I) in a future-proof system
- Visioning about competencies required for R&I in a future-proof system

Lab coordinators themselves decided which of the above topics to focus on, depending on their priorities and focus. Visions took different forms. Some labs produced coherent texts, others presented imagery, artistic projects, or clustered keywords. This was in accordance with the methodological approach to and practical guidance for visioning activities, which had been developed by WP1 and presented in "Facilitation script visioning City Labs Extension to module 4 of 'Deliverable 1.1 Tools and training for setting up a transformative network'".

To allow a basis for systematic comparison and assessments of visions, all labs reported on their visioning activities by using a set of event monitoring templates that had been developed jointly by WP6 and WP8. Monitoring templates were designed so that information was collected about the content of the vision itself, the group of stakeholders who had participated in the visioning, the coordinators' reflections around the process and the degree of consensus and quality of dialogue.

To capture the emphasis of particular visions in relation to the priorities of FOOD 2030, the reporting template also asked coordinators to group visions and participants' priorities according to relevant frameworks from FOOD 2030 itself. Questions included:

Did participants, as seen in their contributions to the workshop and the resulting vision, appear to be concerned with one or more FOOD 2030 priority areas in particular:

- Nutrition for sustainable and healthy diets
- Climate smart and environmentally sustainable food systems
- Circularity and resource efficiency of food systems
- Innovation and empowerment of communities

What did they see as the key characteristics of FOOD 2030:

- Sustainable
- Resilient
- Responsible
- Diverse
- Competitive
- Inclusive

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Did participants, as seen in their contributions to the workshop and the resulting vision, appear to be concerned with the entire food cycle, or mainly to some parts of it?

- Food production
- Processing
- Packaging
- Logistics
- Distribution
- Healthy people/Consumption
- Waste streams

Ultimately, a total of 7 visioning workshops were conducted and reported on in time for WP8's first evaluation of visioning in City Labs, a thematic analysis which WP8 presented at the 2018 Consortium meeting in Brussels. Presentations followed by small group discussions enabled consortium members to evaluate key findings and discuss the need for further action or alignment within the project. Seven additional visioning event reports were subsequently received in time for an update provided during the midterm evaluation in May 2019.

The main findings, at that time, were

- **There is high alignment between City Lab visions and the emphases of FOOD 2030, and there is little to no disagreement within labs.**
  The City Lab event reports showed that participants in visioning workshops largely agreed with the scope and priorities of FOOD2030 (see Figure 3.1: Summary of City Lab visioning activities). A few exceptions to this was made evident by coordinators' free-text responses in the reporting templates; here, the relative importance of keeping future food systems "local" and "community"-based, as well as the reliance on science and technology to reach ambitions of FOOD 2030 was called into question by some participants.
- **The implicit theories of change among coordinators highlight education and synergies with other local initiatives as the main ways in which City Labs can create change.**
  Free-text responses in coordinators' reports describe expected pathways of impact for individual labs. Responses to these questions highlight **e**ducation, awareness-raising, and communication as the main activities producing impacts, together with synergies with other local actors, initiatives and networks.
- **While visioning is proceeding, not all of the DoA's intentions are followed up.**
  Notably, visioning within City Labs took place almost exclusively on the topic of future-proof food systems, and not on the role of Research and Innovation (R&I) in a future-proof system or on competencies required for R&I in a future-proof system. Moreover, the "competitiveness", which is one of the key characteristics of FOOD 2030, was given comparatively less importance by City Lab visioning workshop participants than other characteristics. Finally, unfamiliarity with RRI was listed as a barrier to discussion by some coordinators.

Figure 3.1 below illustrates the relative alignment in emphasis between visions from City Lab workshops and key areas of focus in FOOD 2030.

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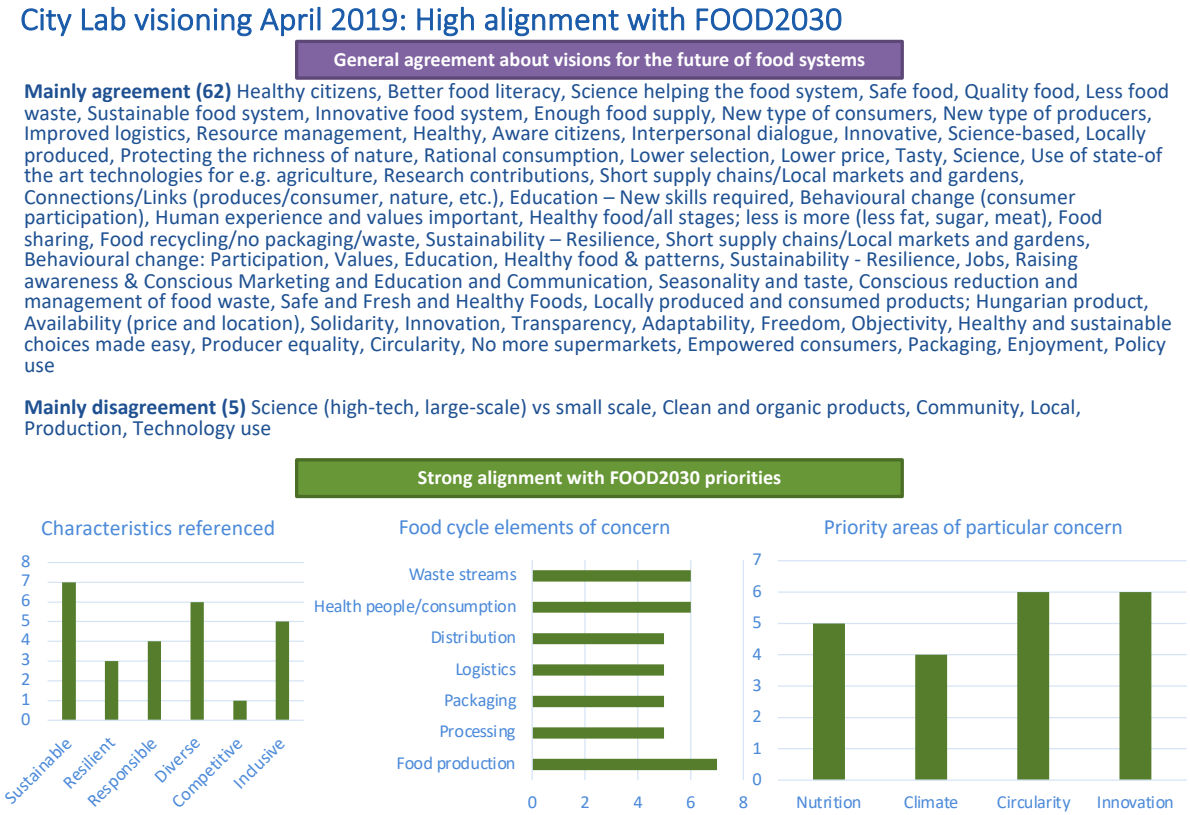

Figure 3.1: Summary of City Lab visioning activities

What were the vision(s)?

As mentioned above, visions from City Labs took a variety of forms, including textual, keyword-based and visual and artistic expressions. In Table 3.1, some examples are shown regarding the range of visions resulting from lab activities.

Monitoring reports enabled consistent comparison between different City Labs' visions along several areas, including characteristics of visions and the implicit pathways to impact foreseen by lab coordinators. Appendix 2: *Key features of City Lab visioning workshops* lists this information for the 14 events on which the above updates to the consortium were made.

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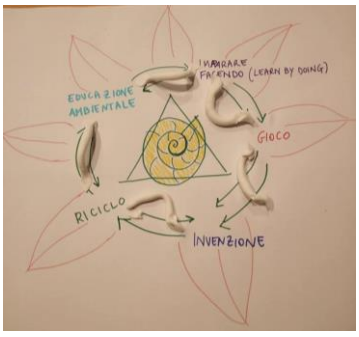
Table 3.1: Examples of visioning activity content

CL Milan - 6/10/2018	CL Barcelona – series	CL Amsterdam – 8/2/2019
Building scientific citizenship: interactive activities to imagine the future food system Focused participation, primarily teachers	1st cycle of workshops from FIT4FOOD2030 - Analysis of the food system for healthy and sustainable diets and identification of needs in R&I Series of events, diverse stakeholder representation, adapted format to include formulation of objectives based on visions	'Food Connects' – working session cluster coordinators 75-minute visioning session with diverse group of stakeholders, resulting in clustered priorities
 Different ways to work with students; thematic groups, use school facilities, embedding the topic of research and nutrition  Schools should interpret new forms of connection enabled by digital tools.  Interconnectivity; Learning by doing, engaging with students through creativity	**R&I PROGRAMS** Characterization of the consumption needs for the different nutrients for personal wellbeing**SHARED VISION** Identify the **needs** of **protein** that the organism needs in order to optimise its consumption to face the mission of the rise protein demand. Identify the **effects** that has the consumption of protein in **health** **R&I LINES AS EXAMPLES** R/I: **Research in the relationship between protein and satiety** R/I: Study of **the effect of proteins on microbiota** to determine whether there is a relationship with personal welfare R/I: Study of **the effect of microbiota on the individual needs of protein consumption**	 Outcomes include the identification of several clusters (cooperatives/new ways of collaboration, locally produced, strengthening connection producer-consumer, data and transparency, true pricing, logistics, rest streams, awareness and education, protein transition, equity and social sustainability, time, convenience, packaging).

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The overall stakeholder participation at 14 City Lab workshops shows that knowledge and research institutes are the most dominant organizational affiliation of participants, while in terms of gender a little less than two thirds of participants were women and slightly more than one third of participants were men (Figure 3.2 and Figure 3.3 below).

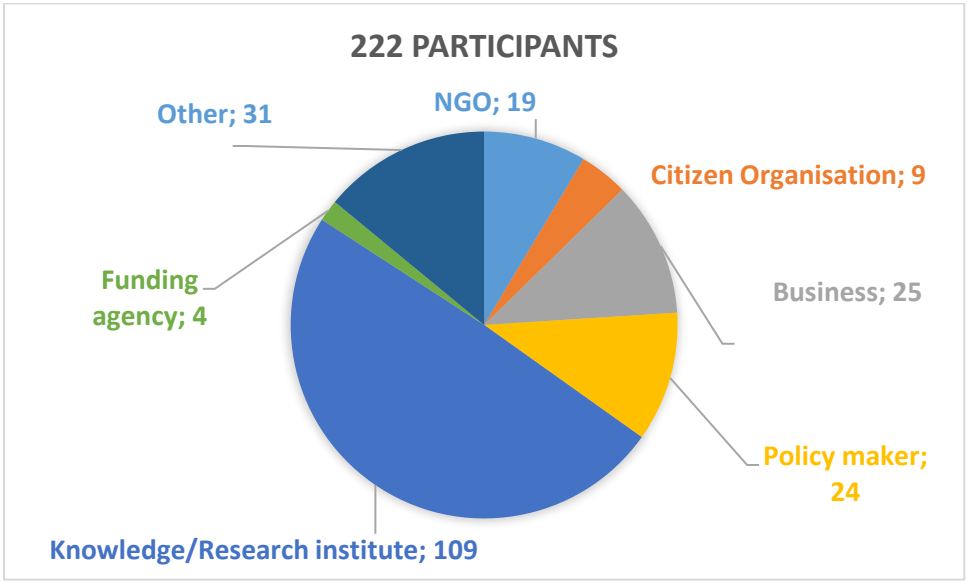

Figure 3.2: Stakeholder categories among participants at City Lab visioning workshops

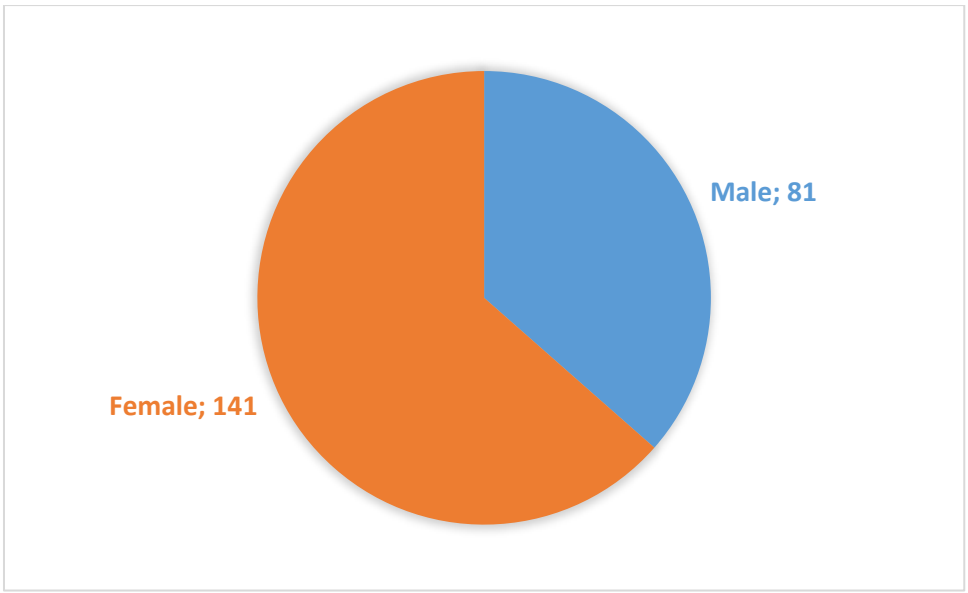

Figure 3.3: Gender balance among participants at City Lab visioning workshops

As the above figures and tables show, there is a high degree of alignment between visions expressed in City Labs, and the FOOD 2030 policy framework. Most notably, visions take other forms than the coherent narrative generated by the FIT4FOOD2030 consortium, including keyword-clusters, artistic expressions, visions organized around specific issue-areas, and more. The examples included above capture only some of this diversity. Overall however, visions align broadly with FOOD 2030 in the

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sense that FOOD 2030's priority areas, characteristics, and depiction of the food system, are all deeply echoed in the language and sentiments of City Lab coordinators' reports from visioning events. Systemic approaches and competencies that highlight the shared responsibilities of different actor groups characterize the visions, although somewhat less of an emphasis is placed on business actors and the weight placed in FOOD 2030 on competitiveness. Moreover, little is said about the R&I system where fewer specific features are commented on or explicitly included. Overall, the reports show that in terms of coordinators' and participants' expectations about the effective pathways for action and impact, awareness and education are seen as the ways in which City Labs may influence change. This is in line with the vision of the consortium, although it does not significantly address the transformative capacities of research and innovation, or interactions with other levels of FIT4FOOD2030 such as the Policy Labs or EU Think Tank.

Visioning in the Policy Labs

In the Policy Labs, visioning took place during early national meetings as part of mapping of national research and innovation systems. These activities helped identify areas where Policy Labs could contribute constructively through policy experimentation. Not all Policy Labs included explicit visioning; some labs instead used systematic SWOT analyses (strengths, weaknesses, opportunities, and threats) as the basis for formulating their recommendations for national food systems.

A monitoring report template was developed in collaboration between WP8 and WP5 in the fall of 2018, and these and other reports prepared by WP5 (in particular WP5's status updates prepared in spring 2020) are the main source of Policy Labs visioning outputs.

What were the visions?

As visioning did not take place in all Policy Labs, and as the visioning that was carried out took place somewhat later than in City Labs, with the result that reporting on visioning occurred as late as after the midterm evaluation of FIT4FOOD2030 in May 2019, monitoring for the purpose of intervention into emerging vision-related conflicts in the beginning of the project was not possible. However, key features of visions from some Policy Labs are included below to enable a reflection on the relationship between visions and theories of change at the Policy Lab level and in relation to the project as a whole.

Policy Lab Lithuania (preliminary):

The citizens are provided with fully-fledged and nutritious food that is produced from sustainably grown products enriched with most valuable active biological materials derived from by-products or from products that are no longer suitable for direct use as food.

Policy Lab Hungary:

The vision from the Hungarian Policy Lab is expressed as an infographic (see Figure 3.4), with hexagons grouped by color according to what areas of the food system they contribute to, and encircling grey elements representing features of the system as a whole that support a holistic approach.

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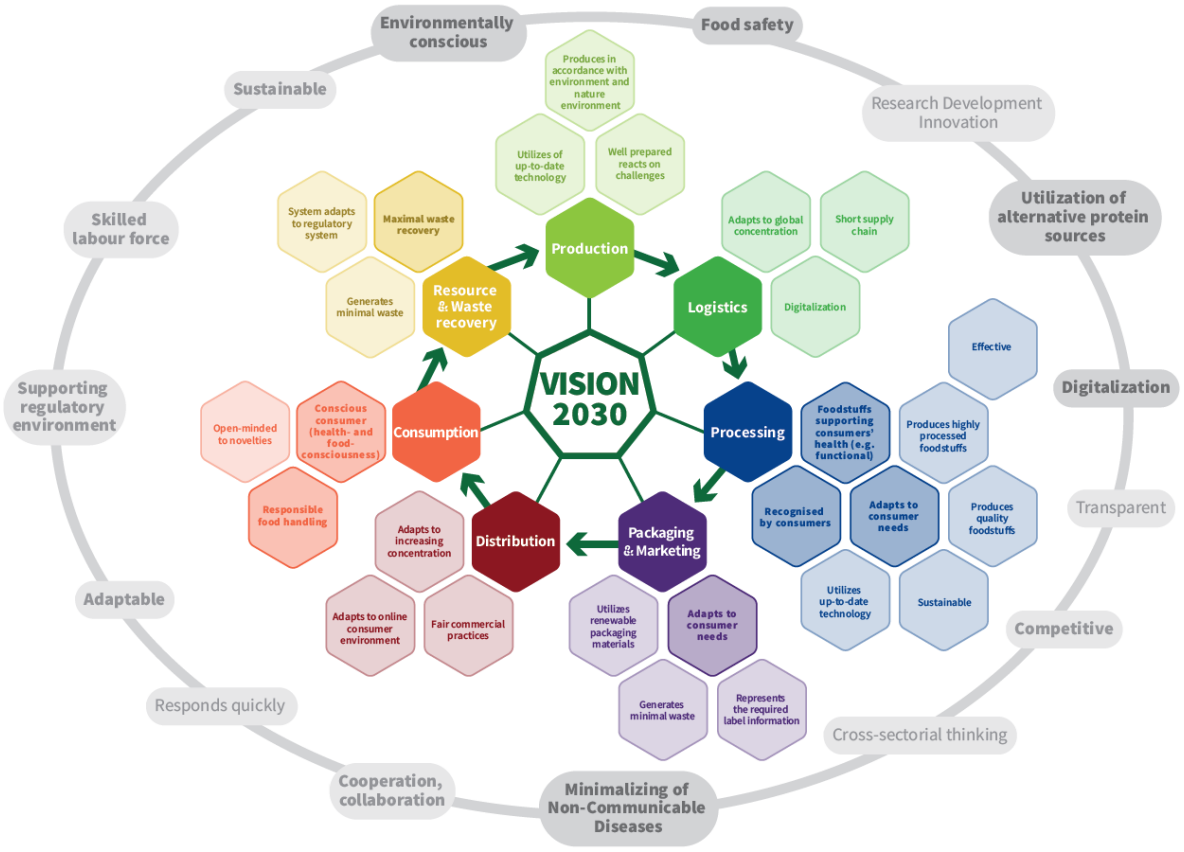

Figure 3.4: Vision generated by the Hungarian Policy Lab

Policy Lab Romania:

Regarding food waste, a reduction from 50-75% in 2030 was envisioned. Furthermore, fast recyclable/biodegradable food packaging was envisioned for 2030. Regarding food safety, the participants found the following subjects important: Include social, environmental and nutritional aspects in the approach. Eating behavior. Local small producers must be stimulated and encouraged for producing fruit and vegetables and for distributing them through short chains. R&I must be reinforced.

Policy Lab Norway:

Youths eating healthy and sustainable. No food waste. Diffused knowledge about individual solutions. Norway as showcase for global/local solutions and collaboration in the value chain, and for politicians winning elections on food policy ambitions.

Further information about Policy Lab visioning is provided in Appendix 3: *Key features of visioning in Policy Labs*, which builds on extracts from documents produced by WP5 ("Policy Lab two-pagers") in

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April 2020. This appendix includes key information about the form and content of individual labs' visions, and about how the visions influenced other work in the respective labs.

What is notable from the examples above is that some of the visions are far more specific around certain topics (youth in Norway; emphasis on food waste and packaging in Romania), while the emphasis on the role of food and nutrition in the political landscape is also re-positioned. A systematic relationship between visions, food cycle elements, and related R&I efforts are highlighted in the Hungarian Policy Lab's vision. An additional graphic accompanying the Hungarian vision shows factors that support and/or hinder the vision, and is included in Appendix 3. In the Lithuanian Policy Lab's vision, circularity is implicitly at the centre of a depiction of a desirable food system. In line with the envisaged difference in tasks between the Policy and City Labs, competencies are given less emphasis here than they were in the City Lab visions.

On the role of visioning in relation to learning and transformation in FIT4FOOD2030

Acknowledging their general alignment with FOOD 2030, what are the broader implications of visions within FIT4FOOD2030? In interviews, City and Policy Lab coordinators provided different views on this question. Some described a shared vision, with participation of powerful actors, as a necessity for change:

> *Without them [system actors], and without us somehow coming on board together, I don't imagine that a real change is possible. Because what we have seen is that there are all these actors, initiatives, all this will, and a lot of people are putting in a lot of work and energy, but if it's not really going into a shared vision with these actors then it's difficult.* (City Lab coordinator)

Others pointed out that visioning was unlikely to be contentious among their participants: "students wouldn't try to search for conflicting visions, for instance. I think they all agree that they want to have change" (City Lab coordinator)

The formulation of a shared vision could also be seen as a source of pride and accomplishment in its own right, as expressed by one Policy Lab coordinator:

> *Yeah, myself, personally, I did the visioning exercise. And to be true, I succeeded you know, based on that exercise we did, we created [a] national vision.* (Policy Lab coordinator)

One coordinator cited a meeting participant who saw visions as representative of a level of abstractness far apart from tangible action or change, suggesting that successfully bridging this gap had been a key accomplishment of the lab:

> *Another one said that we were able to translate the complexity into concrete actions. [...] So that's nice as well. That we were not lost in complexity.* (City Lab coordinator).

Turning to the visions themselves, the consortium's vision is expressed as a narrative, including elements of the food system itself, corresponding R&I system, and civic competencies and skills. It also includes formulations about the specific contributions made by FIT4FOOD2030 to bring the vision about. This vision served an important function in aligning and engaging consortium members at the outset of a new, ambitious and complex process for transformative change. In line with the FIT4FOOD2030 project's *theory* of change, emphasis is particularly on RRI principles and on the importance of reflexive capacity, mutual understanding and cooperation, and barriers in the form of

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conflicting interests and inequities are either seen as surmountable or outside the scope of the vision.

In the City Lab visioning activities, internal disagreement in the Labs is low. There is a general alignment with the FIT4FOOD2030 consortium's vision, as well as with FOOD 2030 priorities as these have been expressed through six Characteristics and seven Food cycle areas, and, as noted in particular by the FOOD 2030 expert group in its 2018 report, the four Priority areas of Nutrition, Climate, Circularity and Innovation (FOOD 2030 Expert Group 2018). Some disagreement was evident around the **relative importance of local-ness** and of **technical versus other sources of food system change**, and somewhat weaker emphasis on resilience and competitiveness than other features for the future food system. Moreover, City Labs chose to conduct **less visioning around R&I systems and competencies** than had initially been expected. Thematically, with some modest exceptions the resulting visions from City Lab workshops align with the emphases of FOOD 2030.

For City Labs, visioning helped to engage and motivate stakeholders around shared objectives, and to form a basis for analyzing competency needs and educational modules.

For Policy Labs, visioning took place in conjunction with the mapping and assessment of national research and innovation systems, helping to identify areas for potential action and intervention through policy experimentation. Visions were more consistently expressed as statements and texts than in the City Labs, although as seen in the example from Hungary, infographics were used to illustrate sub-components and relationships which were suggestive of the types of activities and relationships that achieving a certain vision would require. Thematically, as in the City Labs, the content and aspirations of visions align closely with the emphases of FOOD 2030.

For Policy Labs, visioning activities usually coincided with systematic mapping and analyses of national food systems, and in particular their particular strengths, challenges, knowledge gaps and opportunities. Coordinators consistently report that the combination of these activities represented a solid foundation for subsequent work, which sought to define specific R&I agendas and receptiveness to experimentation in response to the normative signals of the vision and the knowledge-basis represented by the mapping activities. In this sense, the visioning, in combination with food system exploration, helped prepare lab participants for further use of the other materials produced within FIT4FOOD2030.

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4. Monitoring of lab coordinators theories of change

As argued in Chapter 2, FIT4FOOD2030's approach to the food system might best be understood through the three concepts of diagnosis, prognosis and treatment. This treatment is then specified as a set of instruments for change, roughly as follows: The Food and City Labs address the **lack of stakeholder engagement** and the **lack of competencies for transformation** by establishing local stakeholder networks to raise awareness of the need for change, and to empower these networks with knowledge and skills. In order to **disseminate these competencies locally**, the labs take part in co-creating, testing, and implementing educational modules that empower the participants to **work more effectively towards a more sustainable food system at a regional level**. The Policy Labs work towards **alignment of R&I policy and coherence** between different sectors. They seek to move beyond **academic silos and fragmented funding structures** and to **revise academic incentive structures**. Workshops **on national levels** are means to achieve this. The objectives of these workshops consist in **co-creating R&I policy experiments** such as **national transformative R&I agendas or visions**, **nationally aligned R&I strategies** across ministries and funding programmes for transformative food systems R&I.

Most of the instruments described here are discussed in other chapters of this report. The content of these chapters confirms that FIT4FOOD2030's theory of change is accepted by the Lab coordinators as an obvious reference point for their Labs' work. Both the energy with which they set out to form visions, their efforts to engage a broad selection of stakeholders, and the co-creative work methods they took from their training sessions back to their local contexts, and more, testifies to this. Actually, at no point in our data collection was it possible to detect anything else than alignment with the basic ideas of this theory of change. The closest one gets to some criticism or opposition, is a complaint from some coordinators, that they find the high level of autonomy in the project, i.e., that labs were invited to design their own visions, and choose their own priorities regarding focus and aims, to be difficult to handle. Some also complained that the process of finding and engaging the right stakeholders were time consuming, indicating that there were perhaps faster or more effective ways to achieve their goals. These responses were, however, far from dominant.

In this of chapter we therefore focus at some findings and issues that does not directly fit under the headings of the other chapters of this report. For instance, we examine data that indicate the *relative significance* the coordinators ascribe to the various instruments of change.

Another point relates to the theory of change itself, with its associated work methods. Our data demonstrates that there is a difference in how established this theory and its corresponding instruments are within different countries or regions, dependent on their historic presence. A basic finding is also that the FIT4FOOD2030 project has had as a significant outcome that **this theory and instruments – through the project – have become more solidly established in a greater number of countries and regions than before**.

Let us start with the *relative significance* the coordinators ascribe to different instruments of change. In the 2020 survey, we asked: "The aim of the FIT4FOOD2030-project is to change the food system in accordance with the UN's sustainable development goals. This change may be promoted in many ways. To what degree are the following ways instrumental to your Lab?"

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Figure 4.1 below illustrates the relative significance of some relevant change instruments as perceived in the 2020 survey. The figure summarizes the share in percentages of coordinators from City Labs and Policy Labs who marked either "to a high degree" or "to a very high degree" for each response alternative. As no Food Labs responded to the 2020 survey, the answers represent the Policy and City Labs only.

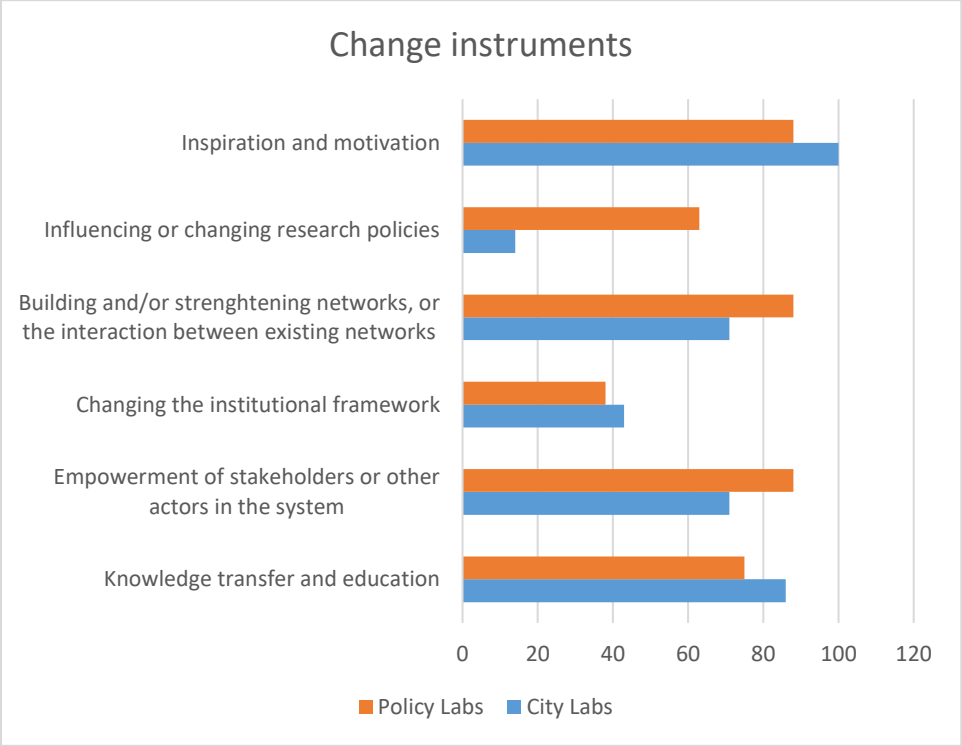

Figure 4.1 The relative significance of change instruments as perceived in the 2020 survey

Among the City Labs, inspiration and motivation receives top scores, followed by knowledge transfer and education, which is consistent for instance with their task of producing teaching modules for the larger public. Among the Policy Labs, inspiration and motivation, empowerment of stakeholders and network building scores equally high, with knowledge transfer and education slightly behind. Influencing or changing research policies receives higher scores than among the City Labs, which is no surprises since this is a particular task ascribed to the Policy Labs. Still, the relative lower scores here may signal that they found it somewhat difficult to use this as an instrument.

In the 2020 survey we also asked some questions about expected impacts that may indirectly draw some light on the coordinators' ideas on change instruments or mechanisms. We asked, "To what degree do you think that your City or Food Lab will produce any of the following results or impacts?" Figure 4.2 below represents the response to each of the alternatives.

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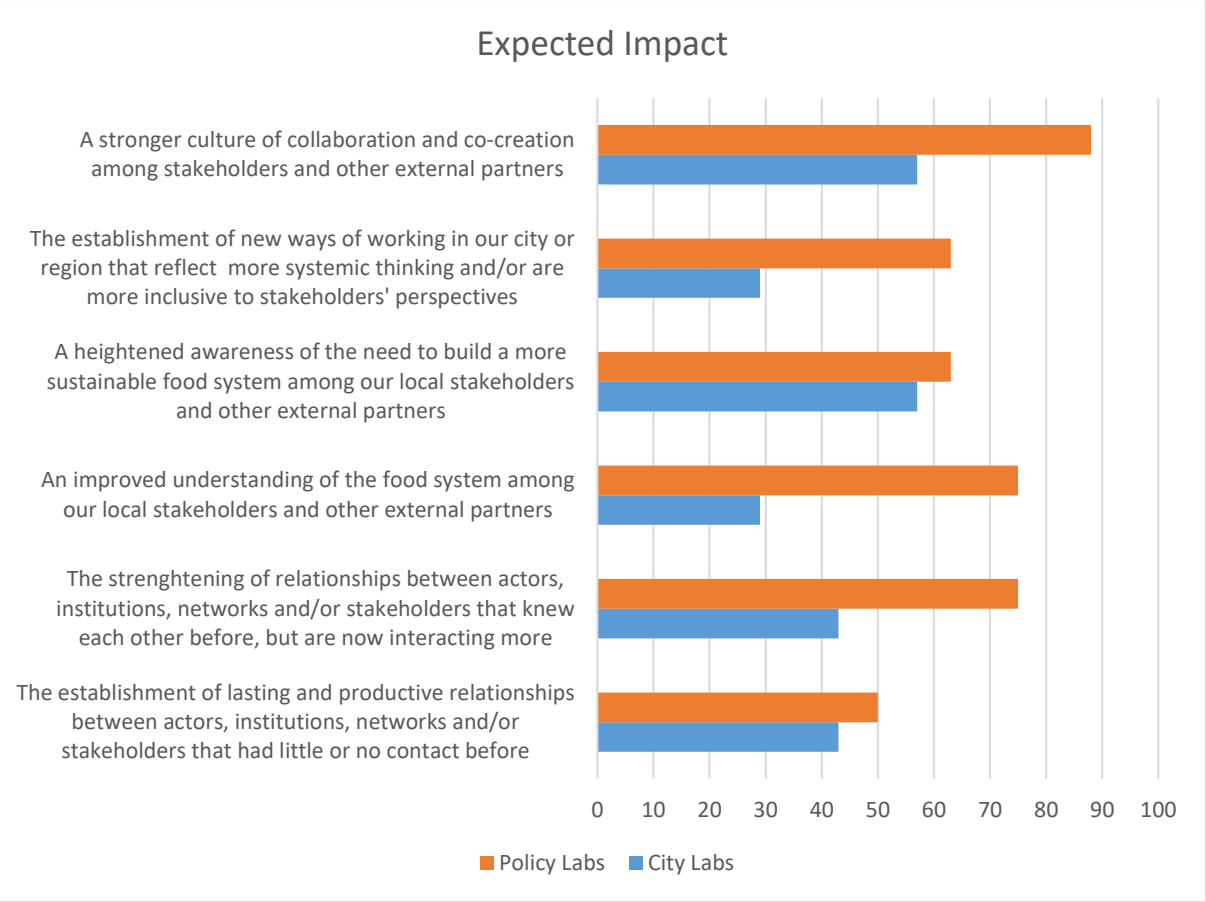

Figure 4.2 Expected impact according to the 2020 survey

The figure still summarizes the share in percentages of coordinators from City Labs and Policy Labs who marked either “to a high degree” or “to a very high degree” for each response alternative, as is the case also for the two next figures.

Each of the response alternatives here points at different aspects of FIT4FOOD2030’s theory of change or its associated change instruments, thus tapping into their degree of awareness of or attention to these aspects or instruments and their significance in their local context.

Interestingly, for the Policy Labs, a stronger culture of collaboration and co-creation receives the top score, signaling that they see a change in work forms as a significant achievement of their efforts. More collaborative or co-creative work forms, or a change in culture in this respect, is also a central element in the project’s theory of change, which the coordinators here indirectly confirms as significant.

High scores are also given to “An improved understanding of the food system among our local stakeholders and other external partners”, indicating that knowledge distribution and joint learning relative to the food system is seen as central to change.

We included two questions on networks and relationships, one regarding the *establishment* of new relationships and one on the *strengthening* of existing networks and relationships. The response to

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both these questions testifies that relationship work and networking are seen as significant instruments for change, however, the instrument that receives the higher score is the *strengthening* of existing networks and relationships.

For the Policy Labs we also added some questions that was not given to the City Labs, relating not to the Labs' impact on stakeholders, but on the Labs' national policy field, comprising actors more directly involved in designing and aligning research policies, such as ministry employees and politicians. In figure 4.3 below, we compare the expected impact for these two groups or areas for two variables.

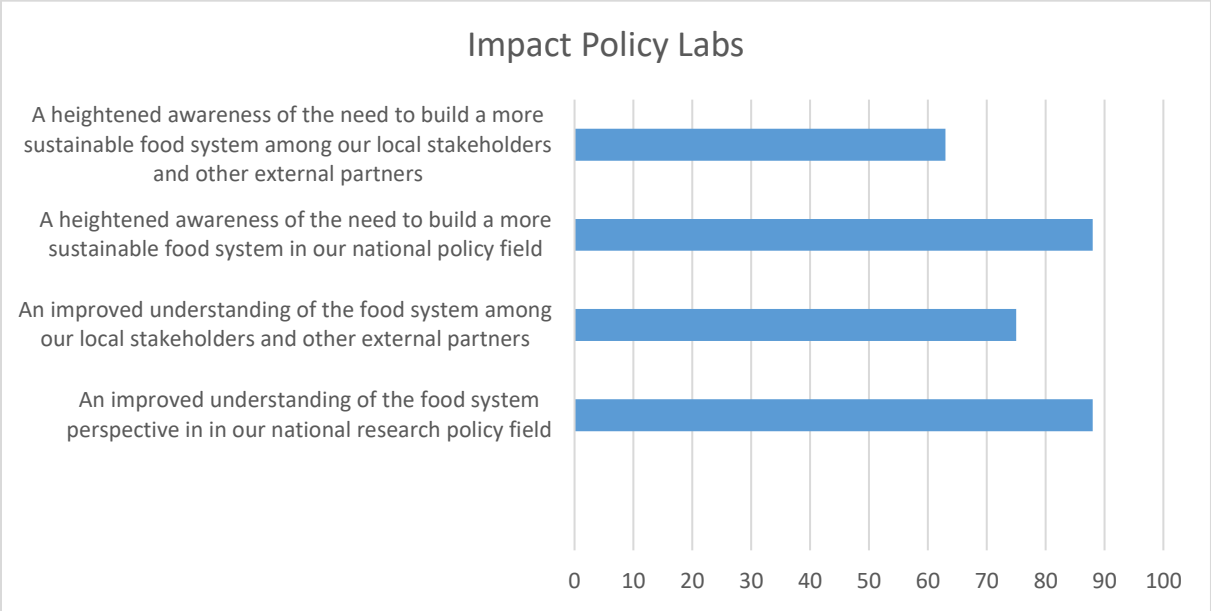

Figure 4.3 Expected impact of Policy Labs according to the 2020 survey

Interestingly, as can be seen from figure 4.3, the expected impact in their policy field for the two variables is higher than the general impact on stakeholders and other external partners.

Turning to the City Labs, and the results represented by Figure 4.2 above, the scores representing their expected impact is consistently lower than for the Policy Labs, however, a stronger culture of collaboration and co-creation receives high scores here as well, along with "A heightened awareness of the need to build a more sustainable food system among our local stakeholders and other external partners".

The City Labs also received some questions on impact that were specific to them, and figure 4.4 below represents the response.

Unsurprisingly, the response alternative "The continued use of the educational modules that have been produced in the project" gets high scores, however, still only slightly more than half of the Labs give high scores here. To the response alternative "Our Lab or host institution has established itself as a significant change agent in our region towards a more sustainable food system", even fewer shows enthusiasm.

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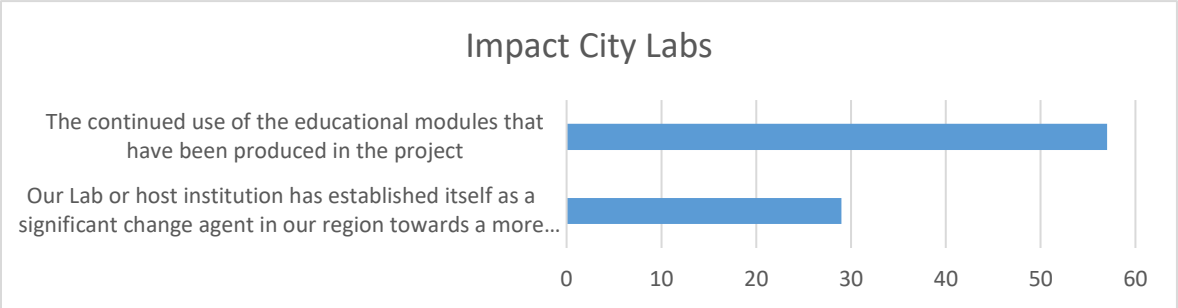

Figure 4.4 Expected impact for City Labs according to the 2020 survey

In sum, the instruments for change examined through these data, or their corresponding dimensions in the associated theory of change, are the one related to knowledge building and dispersion, motivation, inspiration, and networking, and the introduction or strengthening of more collaborative or co-creative work forms.

The fact that coordinators emphasize more collaborative or co-creative work forms as a significant impact of their work, is also reflected in the interview data. One of the coordinators here reflects on an observation that she has made in her interaction with Labs from other parts of Europe, namely that while collaborative work forms has a long tradition in her own national context, elsewhere they seem to be less established:

> *Besides some of the specific methods that we learned in the Policy Lab training, I don't think, that I learned so much from the way of working [that is essential to the project] because in my feeling I've been doing that for a very long time already. So the whole FIT4FOOD2030 philosophy of working, that's what we've been doing since the late 1990s. […] Before this project started, I thought everybody in Europe was working like we do, but they don't. So it could be that for countries who do it differently, that they learned more from it than we did.* (Policy Lab coordinator)

The same point was made on several occasions from a somewhat other angle, for instance in the DLA sessions. Here, Lab coordinators in countries with a tradition for more bureaucratic work forms, or a more hierarchical top-down decision structure, emphasized how the co-creative work forms of the project was challenging. Existing structures were hard to change, they said. However, a number of coordinators were also positively surprised over the interest that the FIT4FOOD2030 perspective evoked in their national contexts, and their relative success in implementing it.

One factor in that respect is the fact that FIT4FOOD2030 is an EU project, which lends authority to the Lab's activities and their way of working. Examples have also been supplied on how local authorities listen more carefully when the FIT4FOOD2030 perspective is represented by visitors from abroad, such as when an expert from another country is invited to talk at a local event.

A finding that lends support from our data, thus, is that its theory of change and its associated work form – with more collaboration and co-creation involving a broader stakeholder involvement – have become more established across Europe.

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Summary

The instruments for change emphasized by the lab coordinators resonate to a high degree with the instruments implied by FIT4FOOD2030's theory of change. In sum, the instruments for change emphasized, or their corresponding dimensions in the associated theory of change, are related to knowledge building and dispersion, motivation, inspiration, and networking, and the introduction or strengthening of more collaborative or co-creative work forms. One of the more significant outcomes from the project so far, is that its theory of change and its associated work form with more collaboration and co-creation, involving a broader stakeholder involvement, have become more established across Europe.

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5. Network

A central goal in the FIT4FOOD2030 project is to include a broad and varied range of stakeholders in dialogues about the future of European food system, and as partners in transformation. To that end, Task 8.3 allocates to WP8 the responsibility to monitor network growth and diversity, to help ensure that consortium members and City, Food and Policy Labs reach and engage wide audiences, resulting in a sustainable stakeholder network.

FIT4FOOD2030 may be seen as an example of the governance turn towards multi-sectoral partnerships that has emerged in recent decades in response to the recognition that governance should include actors from civil society, government, research and the private sector (Bäckstrand, 2006). Governance, especially in the areas of science and innovation, has seen expert-, top-down policy making gradually supplanted by inclusion of new voices through forums for stakeholder inclusion, engagement, in attempts to "diversify the inputs to and delivery of governance" (Stilgoe, Owen, & Macnaghten, 2013). RRI responds by effectively seeking to bridge traditions for inclusion and stakeholder engagement around science and technology on the one hand, with participatory democracy on the other (Reber, 2018). It has thus become instructive for how to approach the diversity of voices and need for future-oriented, explorative, and reflexive governance.

While hybrid forms of governance (which predate RRI) have been praised for the ability to foster change by 'governing from below', they also have given rise to new bureaucracies with inherent interests and agendas, presenting new potential challenges around the accountability and legitimacy of their outputs (Bäckstrand, 2006). In RRI specifically, a meta-synthesis by Silva et al. (2019) finds that stakeholder diversity may increase too late in innovation processes to meaningfully influence technical outputs. More established critiques of participatory initiatives are applicable to RRI as well. Faysse (2006), for instance, in calling for caution against seeing diverse platforms for governance as representing ideal communication, recommending instead that they should be approached as imperfect, continuous processes of negotiations "where positive outcomes may nevertheless outweigh negative ones" (p.219). Warner (2006) considers such platforms to be "institutional bargaining spaces", also noticing that certain stakeholder may decline joining such spaces, or even actively work around or in opposition to them.

These critiques notwithstanding, stakeholder engagement and diversity are increasingly used not only in science and innovation, but also in broader transformation processes in domains such as food, health and agriculture. Timotijevic et al. (2019) argue for the benefits of this turn, finding that within EU food and health policy, there are important disparities in how different stakeholders view the legitimacy of research prioritization around food and health challenges among research funders, and that there is thus a need for a better understanding of how power differentials and stakeholder roles affect these processes. Schut et al. (2016) call participation-oriented innovation platforms a promising vehicle to foster a paradigm shift in agricultural research for development.

These on-going discussions in the research literature inform the approach to stakeholder inclusion in FIT4FOOD2030, which jointly aims to develop a wide and diverse network in support of FOOD 2030 on the one hand, and to generate input to, and assess, the societal desirability of new forms of action and policy experimentation in the food and nutrition system on the other.

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This chapter describes the network formation that has taken place within FIT4FOOD2030, and the role of WP8 within this process. We begin by describing the initial stakeholder network at the beginning of FIT4FOOD2030, before outlining the methods and protocols for network development that were initiated under the auspices of WP8. The chapter then shows how the project's network has evolved over the project's duration and the steps that have been taken to assess and expand on the network over time, before concluding with a status overview as of the time of writing, and reflections on notable end results.

Early stakeholder monitoring in FIT4FOOD2030

In February 2018, all FIT4FOOD2030 consortium partners contributed to establishing a baseline for the project's subsequent stakeholder registration and management process. As part of Task 8.3 and in conjunction with contributions to D1.2 in WP1, an initial registration process was established wherein all project partners submitted lists of stakeholders in an Excel spreadsheet, according to the following definition of who should be considered a stakeholder to the project:

> *A stakeholder to FIT4FOOD2030 is an individual, group or organization which is either affected by, and/or should be allowed to influence, and/or should be invited into the process of realizing the vision of the project.*

This initial Excel spreadsheet collected information on stakeholders' name, organization, organization's website, e-mail address and gender, and further organized stakeholders entries according to main categories (NGO/CSO, businesses, policy makers, knowledge and education centres, funding agencies, and other) and areas of activity (agriculture, aquaculture, health, environment, and other). Furthermore, a distinction was made between stakeholders with whom some contact in relation to FIT4FOOD2030 had already been made, and stakeholders who had not yet been contacted, but who were thought to have a relevance to FIT4FOOD2030 and/or its objectives. For the sake of simplicity these groups were called *actual* and *potential* stakeholders.

As was outlined in D1.2, this initial database contained a total of 310 stakeholders: 176 actual and 134 potential. The baseline allowed initial observations to be made about stakeholder diversity around the project. In the baseline numbers, the best represented category of stakeholders was knowledge and education centers, while NGO/CSOs and businesses were underrepresented. When examining actual stakeholders according to activity area however, diversity was more satisfying. Of the total number of stakeholders, 128 were reported to be female, 126 were reported as male, while 56 were registered without information on gender.

This baseline formed the starting point for further refinement of FIT4FOOD2030 monitoring and evaluation methodology and strategy pertaining to stakeholder engagement, both of which continued to evolve throughout the project.

The methodology used for the baseline in February 2018 was re-used in October 2018 in what constituted the first assessment of network growth around the project after the initial baseline. Using the same classification system as above, consortium members and coordinators of City and Policy Labs submitted stakeholder reports, which WP8 compiled and presented at the 2018 consortium meeting, where emerging trends with regards to stakeholder engagement were discussed.

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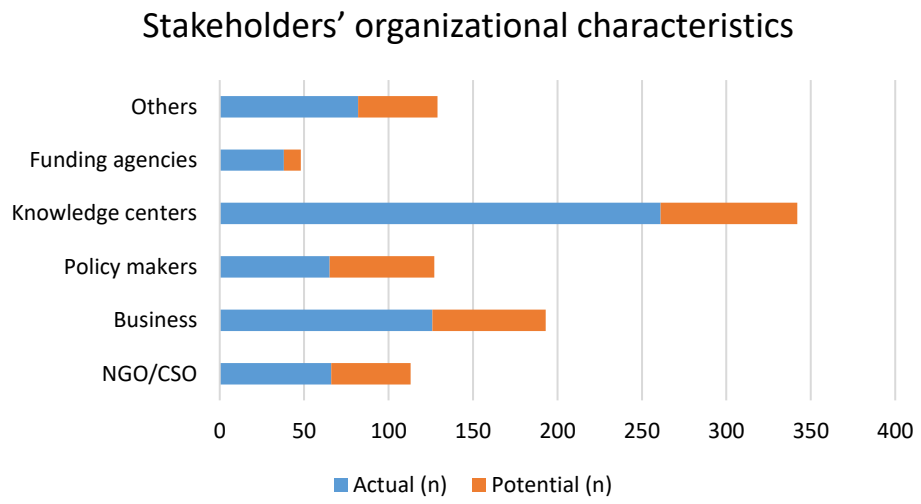

Fig 5.1: 2018 status update on "Stakeholders' organizational characteristics" presented at the October 2018 Consortium meeting based on a total of 863 stakeholders, of which 596 were "actual" and 267 were "potential" stakeholders.

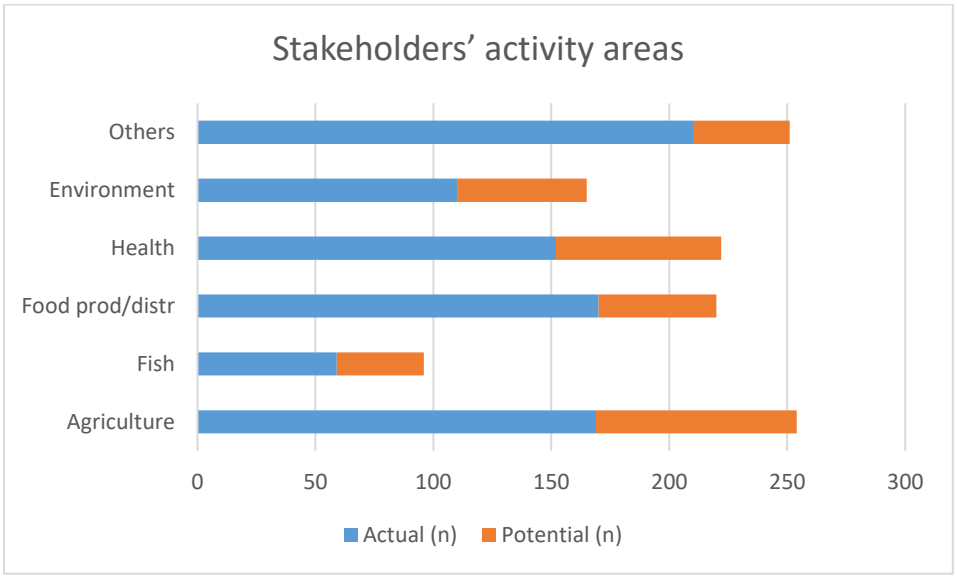

Fig 5.2: 2018 status update on "Stakeholders' activity areas" presented at the October 2018 Consortium meeting (based on a total of 863 stakeholders, of which 596 were "actual" and 267 were "potential" stakeholders).

Shortly after the finalization of the above stakeholder database baseline new GDPR regulations went into effect in project month 7 (May 2018), necessitating revisions to FIT4FOOD2030's collection and treatment of personal identifying information. This sparked a significant learning process for consortium members and associated delays within the FIT4FOOD2030 project regarding the ramifications of GDPR and the need to develop new institutional instruments to enable the collection

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and use of stakeholder information for targeted outreach and engagement. After significant coordination between consortium members, and especially between EUFIC (WP7), VU (WP1/WP9) and OsloMet (WP8), a consent procedure utilising the web platform Mailchimp was launched in early 2019, allowing anyone with an interest in the project to self-register for the FOOD 2030 Platform to receive project information, surveys and event invitations.

Shortly thereafter, as part of the project's midway evaluation, project month 18 (April 2019), numbers showed a strong and diverse growth in the number of stakeholders associated with FIT4FOOD2030 (Table 5.1 below).

Table 5.1: Extract from midterm evaluation report project month 18 (April 2019) showing stakeholder database development since the project's launch.

Stakeholder category	Baseline - stakeholders as of M4 (Feb 2018)	Current status - stakeholders as of M18 (Apr 2019)
NGOs/CSOs	15	118
Businesses	50	202
Policy makers	45	123
Knowledge and education centers	138	366
Funding agencies	24	51
Others	77	83
Unique entries*	310	892

* Some stakeholders are registered in multiple categories/areas, and information about organisational characteristics is lacking for some registrants. The number of unique entries may thus be different from the sum of stakeholder category entries.

As the above table shows, at the project's midway point a high degree of heterogeneity was present in the projects stakeholders. It was also encouraging that the numbers reflected active stakeholder engagement, as opposed to passive recipients of social media posts and other forms of unidirectional communication.

For the project's mid-term evaluation, further data was compiled to compare the numbers of stakeholders reached at the time with key performance indicators (KPIs) from the FIT4FOOD2030 DoA. Table 5.2 below is based on continuous monitoring of a number of data sources, including City and Policy Lab event audience numbers (WP5 & WP6), entries in the FIT4FOOD2030 stakeholder database, and membership in the FOOD 2030 Platform, all monitored and compiled by WP8, as well as continual tracking of dissemination and communication efforts. The column "Engaged directly" is based on interactive engagement, such as workshops, participation in Policy Lab national meetings, educational modules and active dialogue with stakeholders to the FIT4FOOD2030 project. The column "Engaged indirectly" captures one-way dissemination and communication, such as conference presentations or lectures.

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Table 5.2: Number of stakeholders reached out to, as reported in the midterm evaluation report project month 18 (April 2019)

Stakeholder	Engaged directly through pilots, implementation and workshops		Engaged indirectly through dissemination and communication		Total	
	DoA targets	Status M18 (April 2019)	DoA targets	Status M18 (April 2019)	DoA targets	Status M18 (April 2019)
Citizens and consumers	1,000	273	2,000	296	3,000	569
School children and students	1,700	120	2,000	-	3,700	120
Knowledge and education centres	100 (20)	1,209	2,500 (500)	1,572	2,600 (520)	2,781
Policy makers	80	518	200	517	280	1,035
Businesses	240 (80)	494	450 (150)	261	690 (230)	755
NGOs/CSOs	160 (80)	181	300 (150)	-	460 (230)	181
Funding agencies	30 (10)	94	300 (100)	-	330 (110)	94
Other	-	174	-	-	-	174
Total	3,310	3,018*	7,750	2,646*	8,360	5,664*

* Some stakeholders represent several categories/areas. The 'total' refers to number of engaged individuals, and is thus lower than the sum of engaged stakeholder categories engaged.
Numbers in (brackets): original targets of 'organisations' in DoA.

Additionally, an estimated audience of 289 000 persons were reached with project related information through the project's website, email and social media.

Some significant observations and interpretations related to the above numbers measuring stakeholder involvement **midway in the project period** are:

- DoA targets concerning direct stakeholder engagement are expected to be reached or are already (far) surpassed, both in terms of overarching targets and in terms of targets for stakeholder diversity. One reason for this is the generally high attendance at and frequency of Policy and City Lab events.
- Both City and Policy Labs appears to have initially focused on including stakeholders through their existing networks.
- Policy Labs have been engaging with a rather wide range of stakeholders, but with relatively low involvement of consumers or consumer organisations. (To address this, WP8 facilitated discussions with coordinators at the April 2019 Policy Lab training.)

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- When looking at the background of the stakeholders in Policy Labs, there are generally more people from the agriculture and food production side than from health or environment.
- City Labs have been engaging with a wide range of stakeholders. While some involvement of actors from the food chain is observed within the 'businesses' category (e.g. farmers' organisation, dairy producer, meat producer, catering, eco-market, bio-waste company, etc.), this engagement is rather limited in number and scope. Participation by primary producers is also low, with only one farmers' organisation (Amsterdam), one meat producer (Barcelona) and one dairy producer (Tartu) having been involved across 7 City Labs.
- No specific gender imbalance in terms of numbers of participants in Lab activities is observed.

Revisions in stakeholder monitoring methods and categories

A number of modifications were made in stakeholder categorisation and monitoring methods during the project's first half, which merit methodological clarifications. The original table of key performance indicators (DoA Table 2.2) included CSOs within citizens and consumers. In the beginning of the project, CSOs were moved to the NGO category as NGOs/CSOs. For unspecified stakeholders or for those who do not fit clearly in one of the groups, an additional category of 'others' was made. Lastly, targets for 'Knowledge and education centres', 'Businesses', 'NGOs/CSOs', and 'Funding agencies' were originally formulated as targets for numbers of organisations engaged with (shown in brackets above). Subsequent monitoring has tracked the number of individuals. At the midterm evaluation therefore, ratios of 5:1, 3:1 or 2:1 between individuals and organisations were assumed to convert targets of organisations to targets of people (5:1 for knowledge and education centres, 3:1 for businesses and funding agencies, 2:1 for NGOs/CSOs).

Whereas the categories used in the stakeholder monitoring during the first half of the project were useful in that they provide a cursory overview of the diversity of FIT4FOOD2030 stakeholder engagement, they did not fully capture the range of diversity and heterogeneity actually present. In the subsequent months, therefore, further refinement of stakeholder categories and more granular tracking and targeting of sub-groups of stakeholders (for instance farmers, suppliers, political organisations or levels of policy making, or different kinds of CSOs and NGOs) was seen as desirable. Additional qualitative observations regarding the wider stakeholder diversity and engagement were made in connection with City and Policy Lab events, which also called for more fine-grained categories.

In light of this, a thorough process involving WP1 and WP5-8 was carried out in the aftermath of the midterm evaluation, resulting in a new classification scheme enabling more granular tracking of stakeholders (see Appendix 4: *Stakeholder templates for individuals and events, September 2019*).

As a result of this change, stakeholder monitoring statistics from the first and second half of the project are not fully compatible. Nevertheless, the general trend is towards increasing network diversity and size (with the caveat that the on-going COVID-19 pandemic resulted in significantly fewer events from the spring of 2020 onwards), as shown in the next paragraphs.

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Stakeholder involvement and stakeholder diversity in the last phase of the project

In this and the following paragraphs, we report and discuss the stakeholder involvement on the basis of the last round of stakeholder monitoring that occurred in September 2020, and to some extent also on data from the previous monitoring.

First, as Figure 5.3 below illustrates, there has been a steady increase in the number of stakeholders throughout the project. The figure shows the development of the FIT4FOOD2030 stakeholder network over time, based on the four main "moments" of stakeholder monitoring.

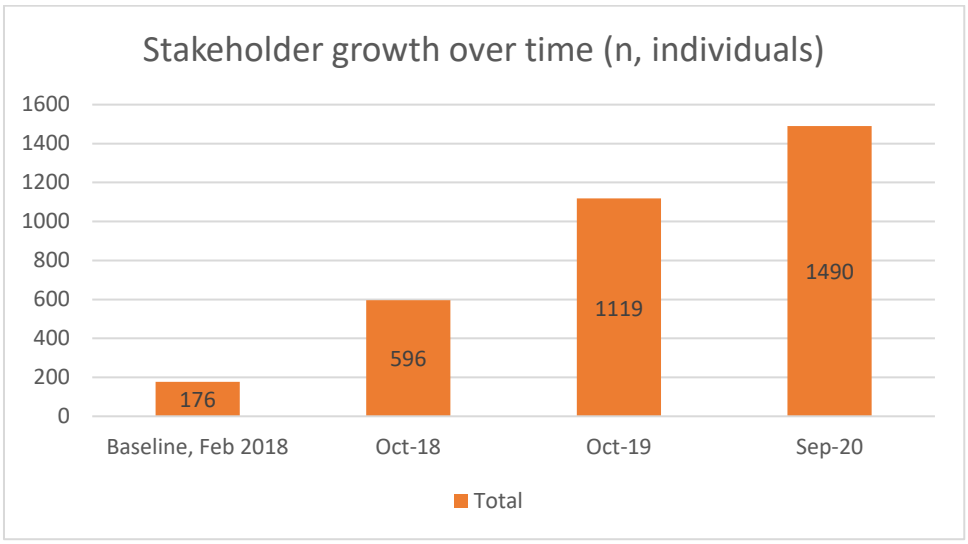

Figure 5.3: Total stakeholder network growth over the entire project

The increased granularity in stakeholder categories introduced from 2019, also makes it possible to illustrate more of the diversity present in the most recent numbers. The following figures provide information about different stakeholder groups, based on the 894 stakeholder entries accumulated in September 2020 – based on the category system that was introduced in 2019. For more information, see also additional statistics, which are included in Appendix 5: *Additional stakeholder monitoring*. In terms of sectoral diversity, percentage distributions show wide representation within salient stakeholder categories, as outlined in the following figures 5.4-5.7:

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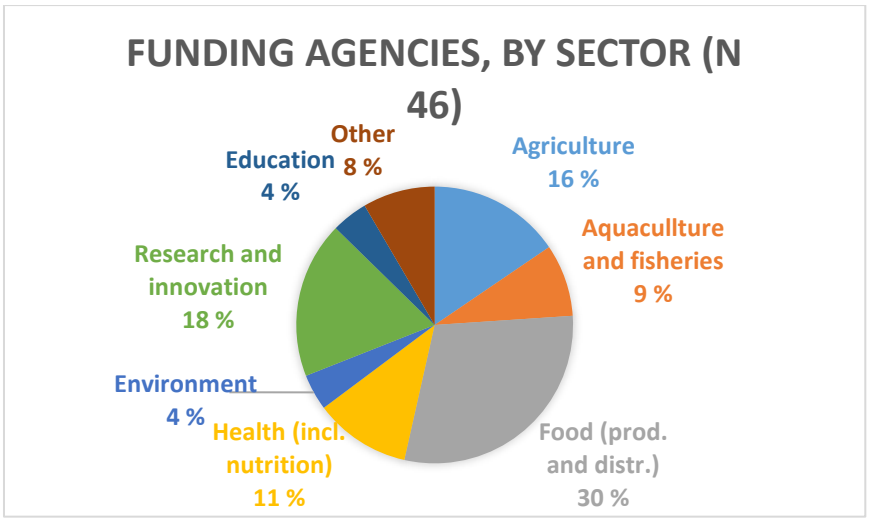

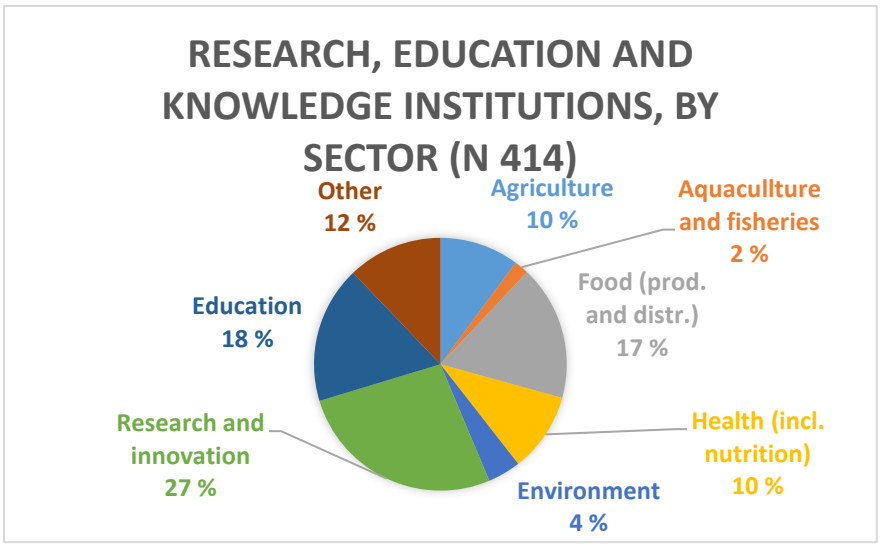

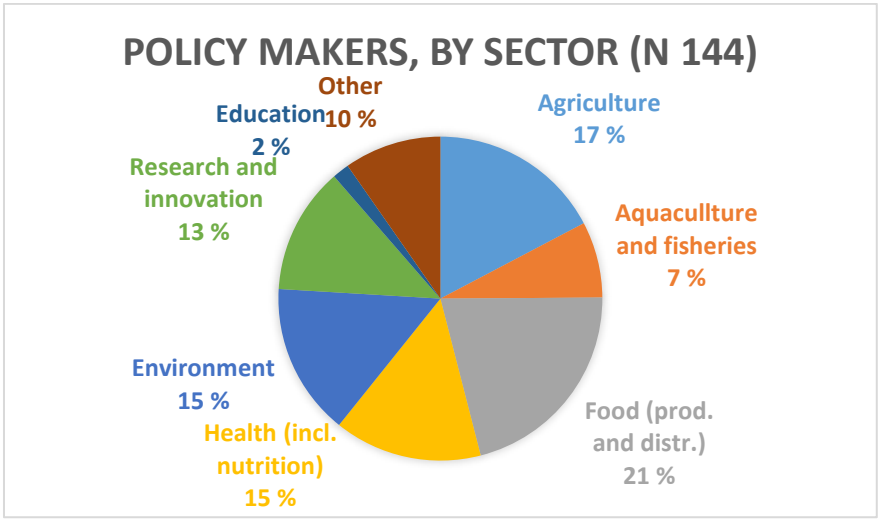

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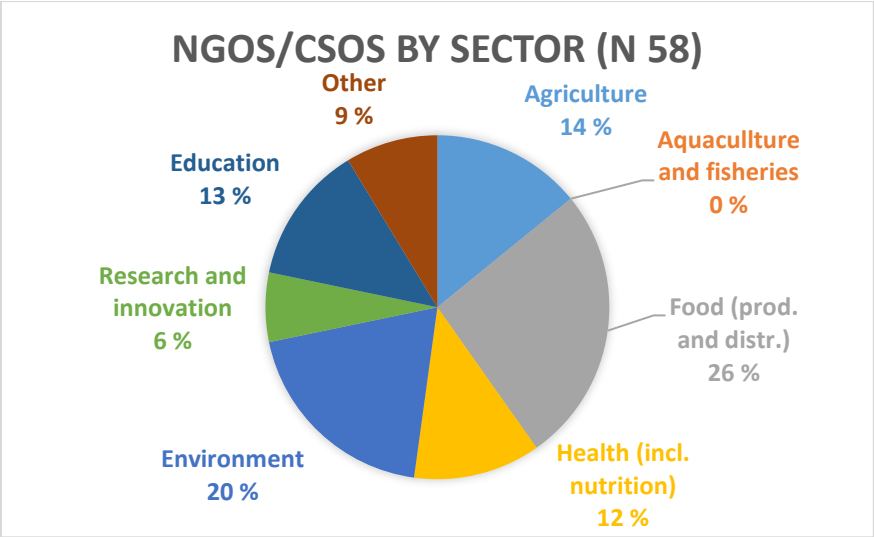

Figures 5.4-5.7: Sectoral diversity among different stakeholder categories

Similarly, businesses, who were organized according to area and relation to the food chain, also showed that most areas were included. The exception is fisheries, who were only engaged with marginally (Figure 5.8).

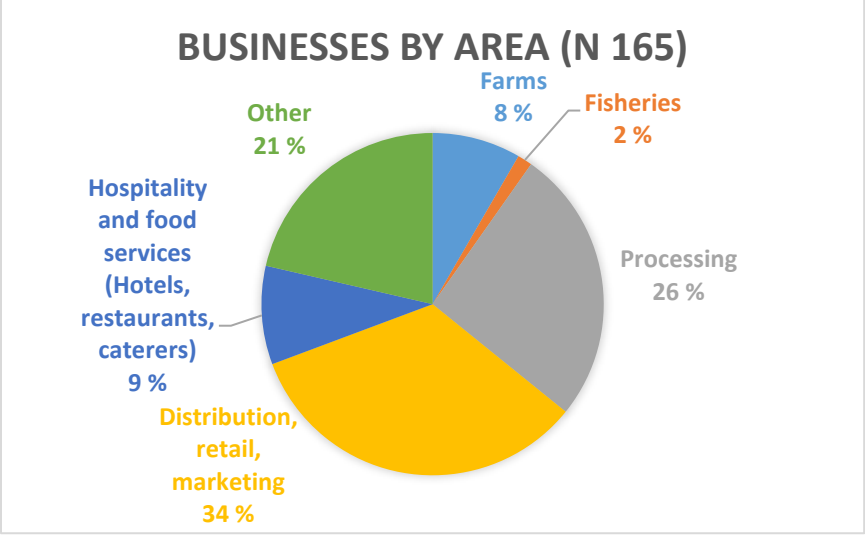

Figure 5.8: Businesses by area

Policy makers were engaged with particularly through Policy Labs, and predominantly at the national level, but also to some extent at the local and city level, as illustrated by Figure 5.9.

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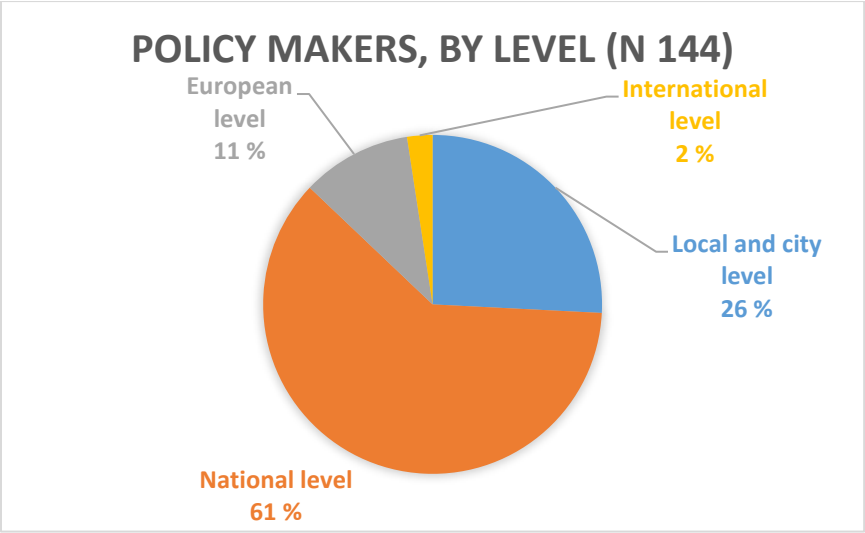

Figure 5.9: Policy makers by level

With regards to NGOs and CSOs, these included a fairly equal share of citizen and consumer organizations and non-industry advocacy groups, with a large share of actors in the category "other" (Figure 5.10).

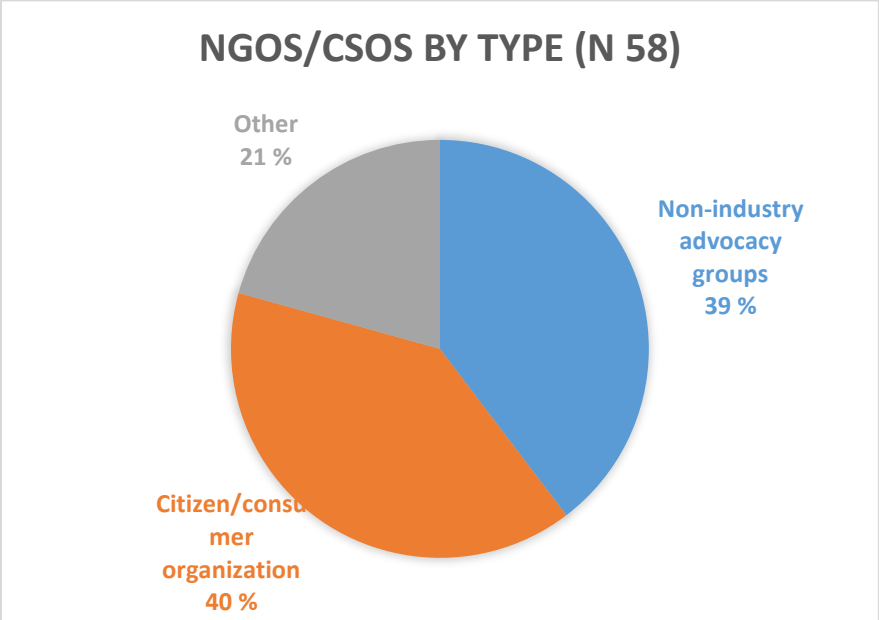

Figure 5.10: NGOs/CSOs by type

Overall, in light of the high number of stakeholders involved and the consistently high sectoral diversity, the degree of diversity and inclusion of major stakeholder types has been satisfactory in the

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project. The high diversity of stakeholder engagement can be attributed to City and Policy Lab coordinators who consistently expressed high agreement with and appreciation for the importance of diversity among lab event participants. Even if some coordinators mentioned that the recruitment of some stakeholder groups at times could be very time consuming and questioned whether this was always the right thing to do, their views on diversity *in general* aligned with the project's theory of change. One City Lab coordinator said:

> *I think the diversity is the important here, so there is not one that is more important than the others. We need all of them to be present. […] Because we believe that transformation has to go through the synergies.* (City Lab coordinator)

When coordinators described their approach to identifying and inviting stakeholders to their events, they often said that well-known, large and established stakeholders, and stakeholders within their own network, were approached first. However, they also described different methods for systematically increasing diversity, which many of them clearly had sought to increase. In this sense, initial instructions to lab coordinators communicated at the stage of initiating labs seem to have been sufficient to produce active efforts aimed at stakeholder diversity. Stakeholder identification and involvement was also a frequent topic at trainings and in DLA sessions, and a short guide with advice on how to proceed at these areas, was produced (Appendix 6), focusing among other thing at the power and interest of potential stakeholders.

One coordinator explains how they had identified individuals to invite:

> *…the criteria was the power they have and the interest that they show, I mean, the willingness to participate in workshops, because we believe that if this person is not motivated to participate, this person won't change the way he or she is working.* (City Lab coordinator)

Another coordinator illustrates the steps taken to balance their already available networks with active efforts to increase diversity:

> *We invited quite a number of people we had worked with already. And so in that case, the criterion was to invite the more active. [...] and then of course, we tried also to create a variety of... within the group. So we try to invite... for instance, for the public institutions people at national and regional level, but also people coming from different departments at the regional level, because we have more contact with the Agricultural Department, but not with the others… […] So we tried […] to get to these people. And I think that was... because they are not the usual suspects for us.* (Policy Lab coordinator)

Who exactly constitutes "unusual suspects" differs between countries and cities, and coordinators were aware that their efforts may not be the same as those carried out elsewhere:

> *For other labs it's difficult to involve big enterprises. For us, actually, it's more the opposite. Because we have big enterprises [...] but we have also a lot of small enterprises, probably more, much more than the big ones*. (Policy Lab coordinator).

Interviews also showed that in some countries and regions, the working methods of FIT4FOOD2030 aligned with existing political cultures and existing ways of working, so that methods were already in place for incorporating diversity of perspectives into governance.

> *We have what we call the triangle, the impact triangle, and to get impact in society with research and with government policy, you have to work in a triangle of research and*

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companies and governments. [For us] this is the normal way of working. (Policy Lab coordinator).

This was not only evident in Policy Labs, a City Lab coordinator expressed a similar process:

> *Basically what I did is that I started mapping and tried to include… I changed the whole office into a space for the map, basically [laughs]. And then from there, the initial criterion was that I took the quintuple helix, all the actors from the quintuple helix, and from each dimension the aim was to invite a regime actor and a niche actor. [...]* Interviewer: *How did you decide who was the regime and who was the niche actor?* City Lab coordinator: *For that I consulted my colleagues, [...] Basically, more established and bigger actors usually went into the regime – not always, but most often*.

In practice however, diversity was also something that presented challenges, both because efforts had to be dedicated to realize it through planning and targeting stakeholders before workshops, and because it required time and effort to translate content and have a shared communication space within meetings. The central importance of stakeholder diversity and engagement within the project thus raised significant challenges, as well as benefits.

Finally, the emphasis on "non-usual suspects" resulted in a number of anecdotal stories of success, where individuals who would not normally have been targeted in food and R&I-related processes were discovered to give valuable contributions, as in this example of a local small business owner becoming involved in a City Lab:

> *She has a small café and catering company with which she said she tries to serve healthy foods and snacks. We... and she's engaged in better eating habits amongst young people and students, mainly. [...] We plan to invite her to attend the class or a meeting of this food club, so she could show them how to prepare such healthy snacks. And so the students will be able to see in practice what all of these things mean, because, yeah, the practical, hands-on experiment part is very important, I believe, and I'm sure that this will boost their interest. So that's why I'm very happy that she's part of… she's supporting the project.* (City Lab coordinator)

The "unusual suspects" that fell outside of the most established expectations for stakeholder groups who were targeted by the project, constitute a high proportion of the overall stakeholder network, 255 out of 1490 stakeholders. They represent a wide range of stakeholder organization types and have a noticeably higher degree of engagement with project content and activities than other stakeholder groups, as illustrated by Figure 5.11 and Figure 5.12 below.

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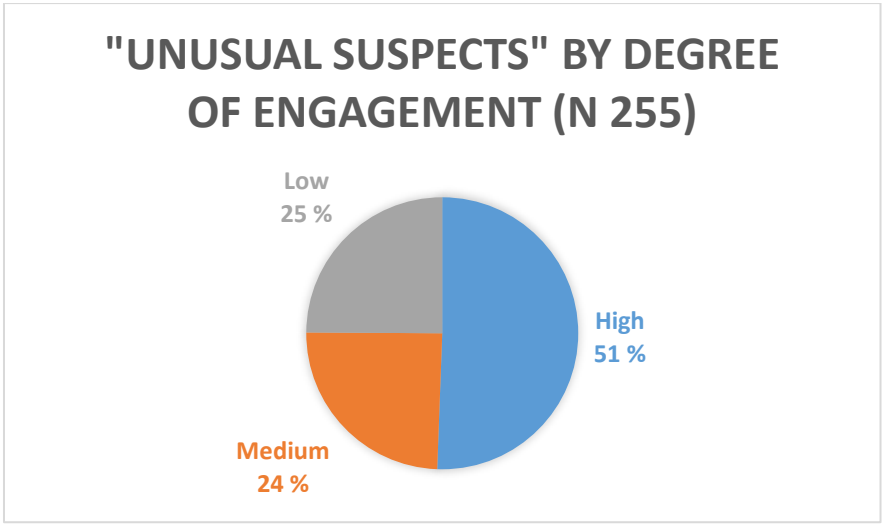

Figure 5.11: Degree of engagement with FIT4FOOD2030 among stakeholders considered "unusual suspects"

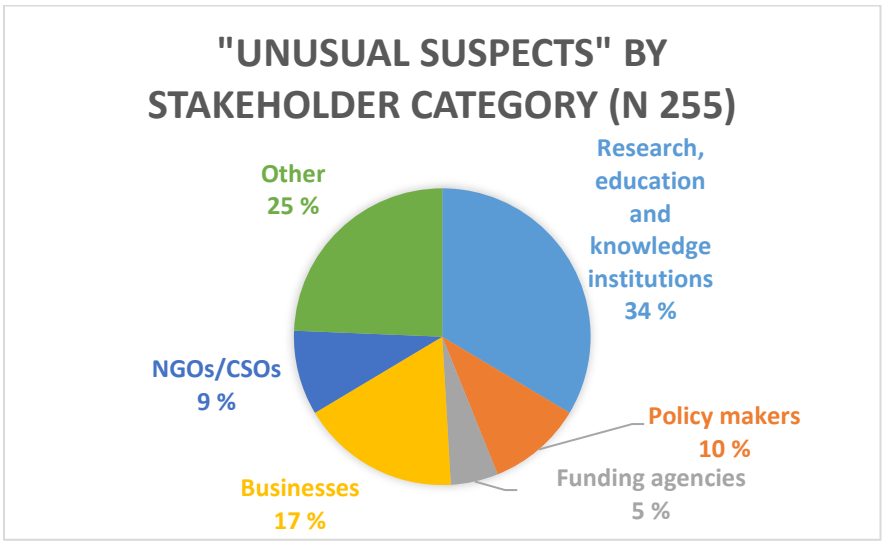

Figure 5.12: Diversity of categories of "unusual suspects"

When looking at descriptors of who these actors were, we see that they represent a wide range of competencies and organizational focus areas, suggesting the representation of relevant niche activities, as well as topic-relevant efforts within organizations not normally seen as associated with food and nutrition R&I (Table 5.3 below).

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Table 5.3: Examples of non-usual suspects with a wide range of professional roles and interests included as stakeholders

Research, education and knowledge institution	**Businesses**
Green Campus initiative	Agrocosial consulting
Food design	Bug-based protein
Metropolitan food, systems, research and valorization	Seeds, plantbreeding and plant protection technologies
Ethnological Food Research	Cooperatives support
Food Chemistry	Organic waste management
Policy Makers	**NGOs/CSOs**
Food Policy Council	Food waste recovery, valorisation, distribution
City food strategy program manager	Social inclusion and food poverty
EU affairs	Agricultural law
Feedstuff & Fertilizers	Cancer society
Taxes	
Funding agencies	**Other**
Hybrid organisation for government funding and local fundraising	Agriculture union
	Nutritionists' association
Agri-tech funding agency	Food Lab applicant
	Journalist
	Sea Kelp capsule producer

The degree of engagement from different stakeholder groups, and other developments over time

During the second half of FIT4FOOD2030, as we have seen, new indicators were included in monitoring, allowing, for instance, the monitoring of *degrees of engagement* within the networks of different actors in FIT4FOOD2030. The new indicators enable comparisons over time, between the monitoring in October 2019 and September 2020. The figures below show the differences between these two moments in number of areas, degrees of engagement, gender participation, stakeholder categories, and engagement level of different stakeholder categories.

First, between 2019 and 2020 a noticeable increase in degree of engagement within City Labs may be attributed to the emphases on hands-on modules during the final project year. A corresponding decrease in engagement in Policy Labs however lacks clear explanation (Figure 5.13 and Figure 5.14 below).

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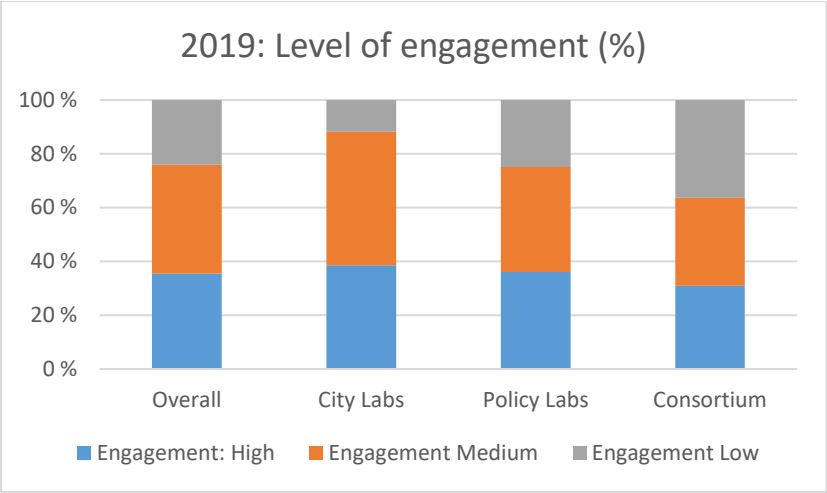

Figure 5.13: Degrees of engagement, 2019

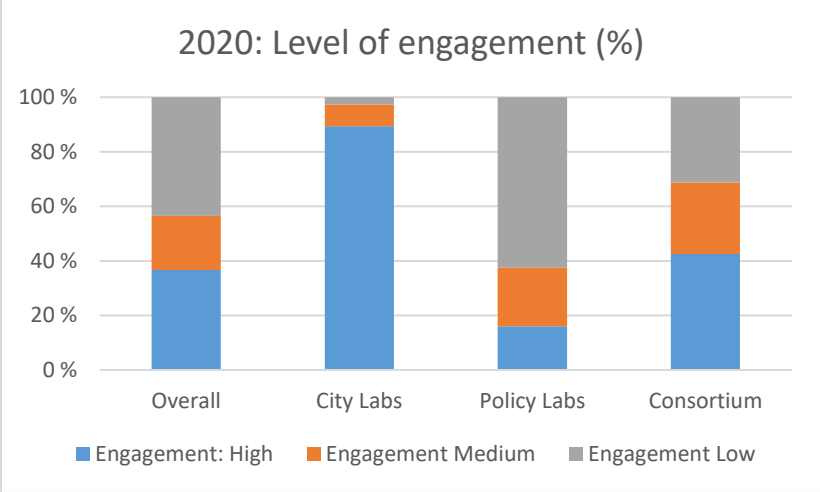

Figure 5.14: Degrees of engagement, 2020

Gender representation appears stable from year to year, with females being somewhat more prevalent than males, as can be seen in Figure 5.15 and Figure 5.16 below.

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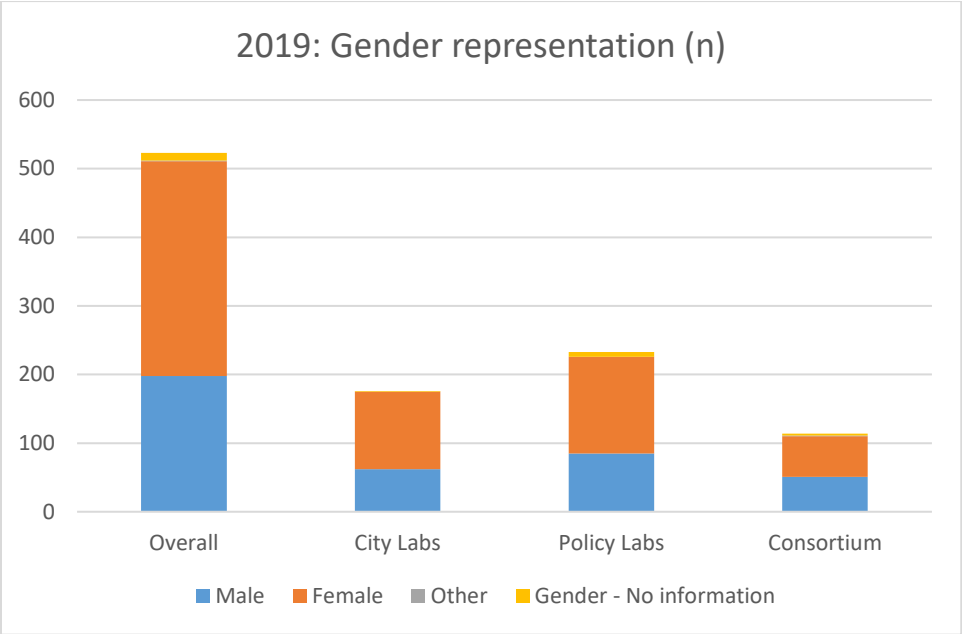

Figure 5.15: Gender participation, 2019

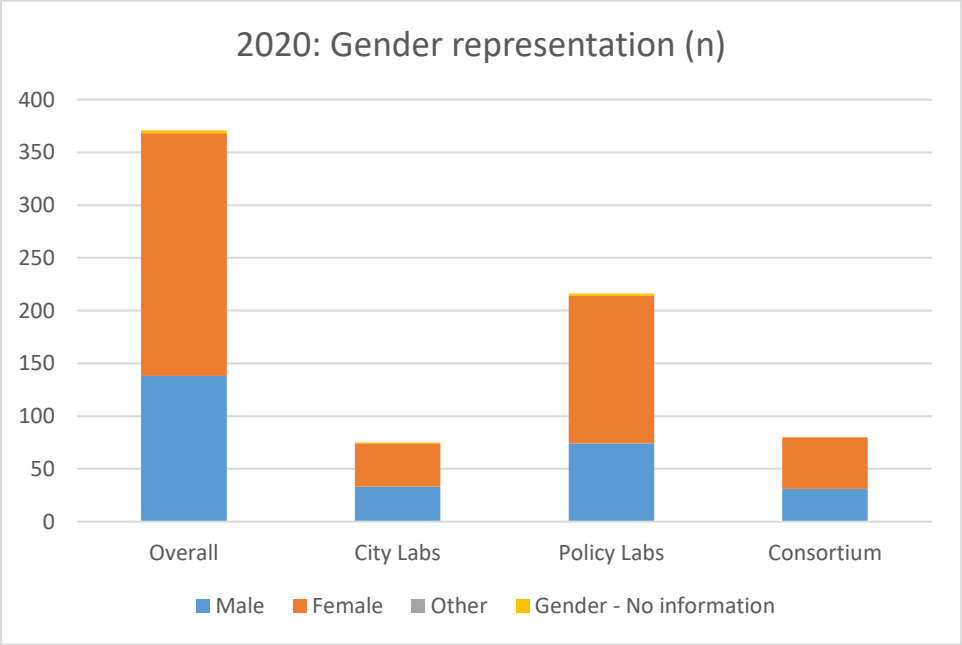

Figure 5.16: Gender participation, 2020

The proportion of stakeholder categories in relation to Lab type, also appears largely stable (Figure 5.17 and Figure 5.18 below).

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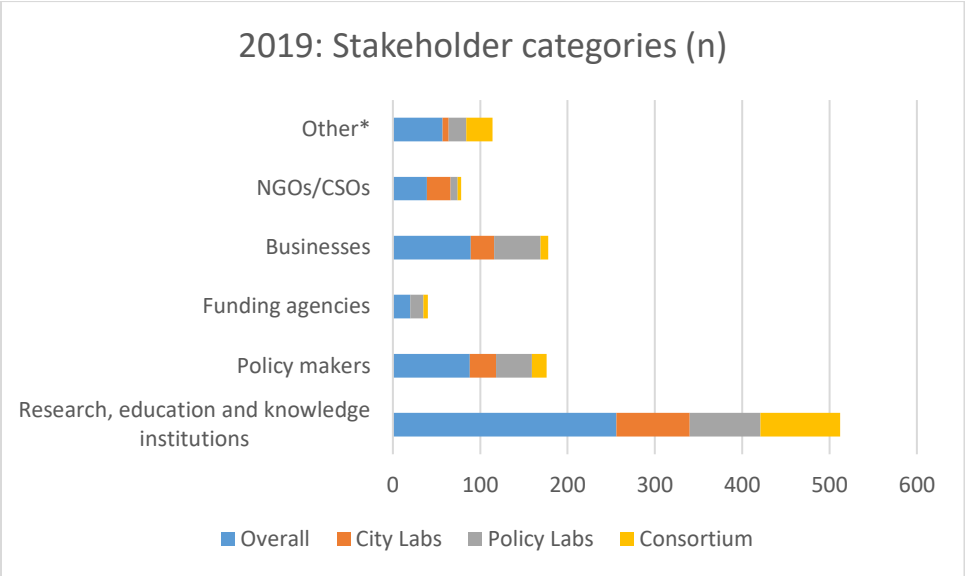

Figure 5.17: Stakeholder categories and where engagement takes place (numbers), 2019

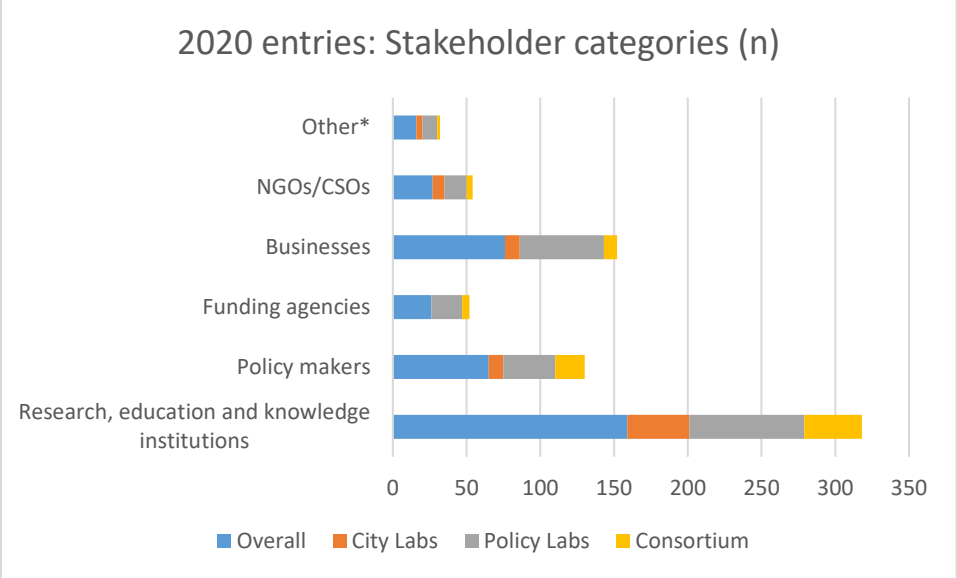

Figure 5.18: Stakeholder categories and where engagement takes place (numbers), 2020

Engagement levels of different stakeholder categories, as measured through the stakeholder registration mechanism described earlier, show a marked *decrease* in engagement across research institutions, education and knowledge institutions, policy makers, funding agencies, businesses and others between 2019 and 2020 (Figure 5.19 and Figure 5.20 below).

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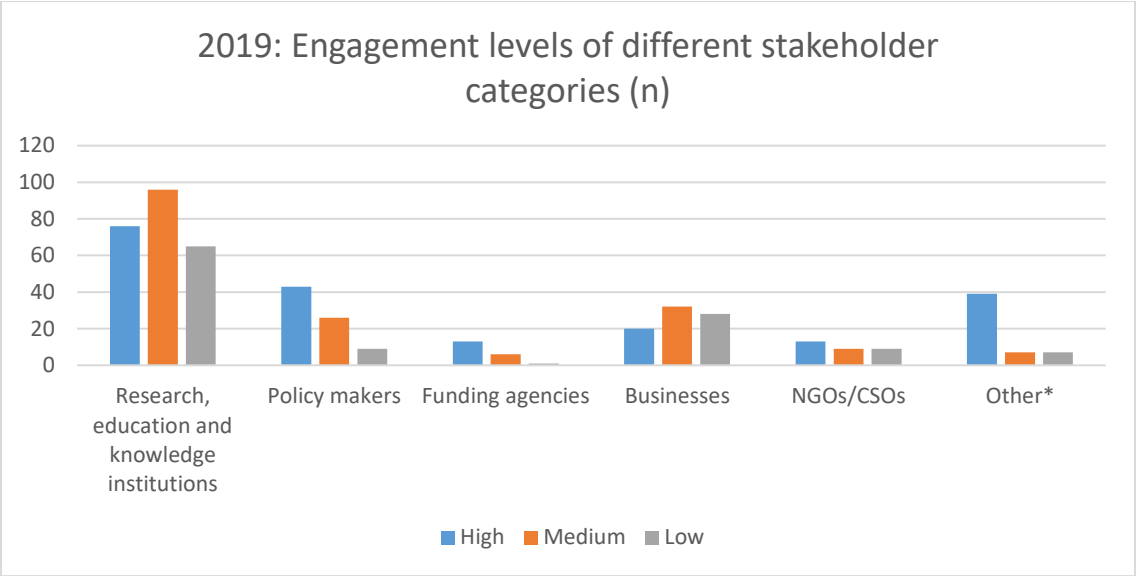

Figure 5.19: Engagement level of different stakeholder categories, 2019

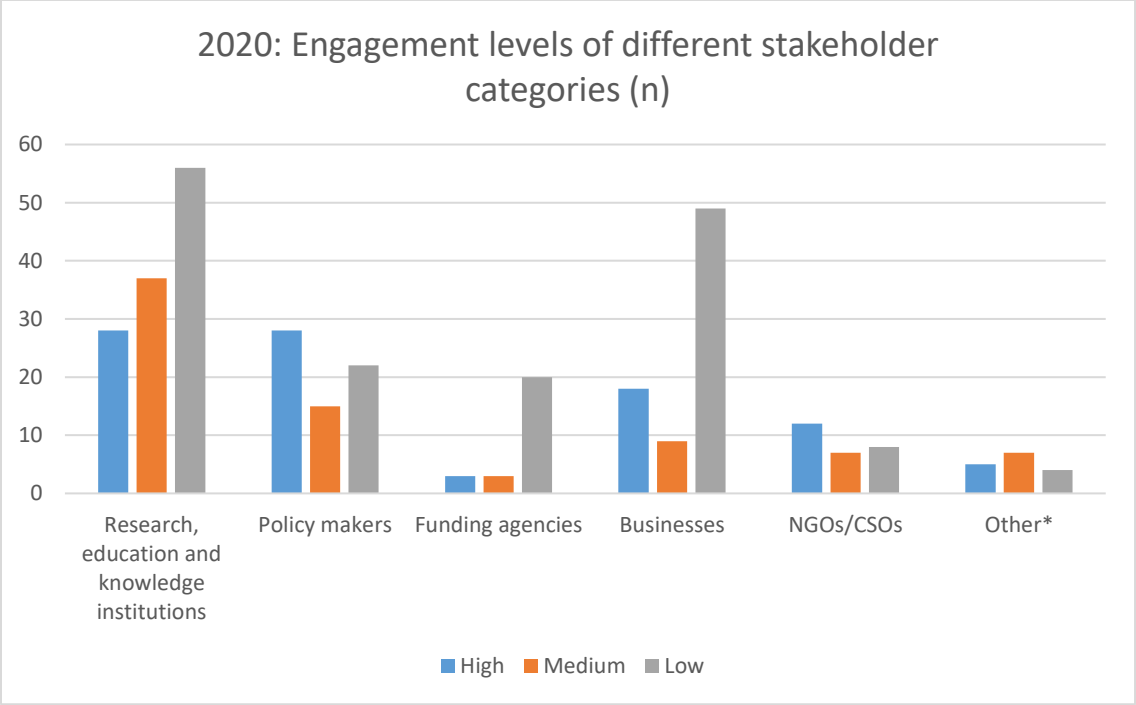

Figure 5.20: Engagement level of different stakeholder categories, 2020

The numbers represented in the above graphics are based on the stakeholder reporting of Labs. We also included some questions on stakeholders in the 2020-survey, however, which gives a somewhat different impression. The question was “Have any of the following stakeholder groups become either more or less involved in your Lab's activities during the last 12 months?” Figure 5.21 below

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summarizes the share in percentages of coordinators from City Labs and Policy Labs who selected either “to a high degree” or “to a very high degree” for each response alternative.

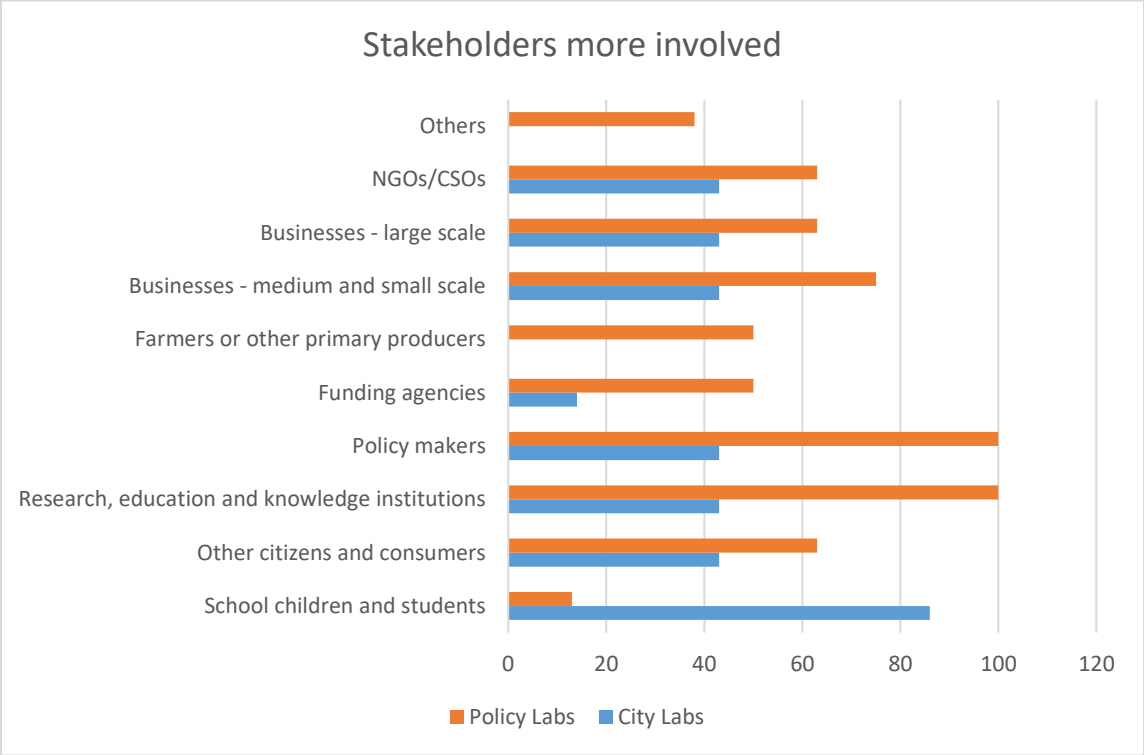

Figure 5.21: Increased involvement of stakeholder groups during last project year

What can explain the discrepancy between the results obtained through the stakeholder registration mechanism, and the survey? One possible answer has to do with the different methods of measurement. In the Excel sheet that was used to measure engagement in the stakeholder registration process, respondents had to mark degree of stakeholder engagement by using a drop-down menu and select a level of perceived engagement for each stakeholder separately. This was a rather time-consuming procedure, and some respondents may simply have skipped it, resulting in an under-reporting of engagement.

The survey, on the other hand, did not literally require of the respondent to assess individual stakeholders’ engagement, but to estimate the level of involvement for each stakeholder group as such. This could have led to over-reporting their engagement levels.

In any case, the 2020 survey shows that lab coordinators report higher degrees of involvement across all stakeholder categories over the last year of the project, reflecting perhaps that the stakeholders that had actually involved themselves in lab activities, now were doing so more consistently. Or, perhaps word-of-mouth has produced a snowballing effect leading to increased interest and participation.

When asked who the most important stakeholders to their Lab were, coordinators gave a wide range of responses that generally highlighted all possible stakeholder categories. Some emphasized policy makers or funding agencies, while others presented businesses, research communities, citizens or

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students as the most important stakeholder type. This reinforces the project's assumption that diversity of stakeholder engagement is needed.

Stakeholder involvement in the light of FIT4FOOD2030's theory of change

Stakeholder involvement is central to FIT4FOOD2030 for a number of reasons, as explained by the project's theory of change.

First, relative to the project's aim to influence the Food system, stakeholders have the significant function of representing the different levels and structures of the system. Several aspects are central in this respect. First, through activities that may create higher levels of awareness and motivation for change among stakeholders. This has to do with the Lab empowering stakeholders, and through this, energizing the system, and creating impact.

Secondly, the Labs need help and support from stakeholders in order to achieve their more specific goals. The City Labs, for instance, need help from experts in order to design successful teaching modules, but also to build the understanding among themselves and collaborating stakeholders of how a more sustainable local or regional food system could look like more specifically. The Labs, thus, need the resources of the stakeholders, and more indirectly, by the surrounding food system.

The response to a question asked in the 2020 survey indicates which of the stakeholder groups were more useful in this latter respect. The question was: "Have some of the following stakeholder groups been more useful to you in helping to realize the aims of your Lab? If so, please indicate their degree of usefulness below." Figure 5.22 summarizes the share in percentages of coordinators from City Labs and Policy Labs who marked either "to a high degree" or "to a very high degree" for each response alternative.

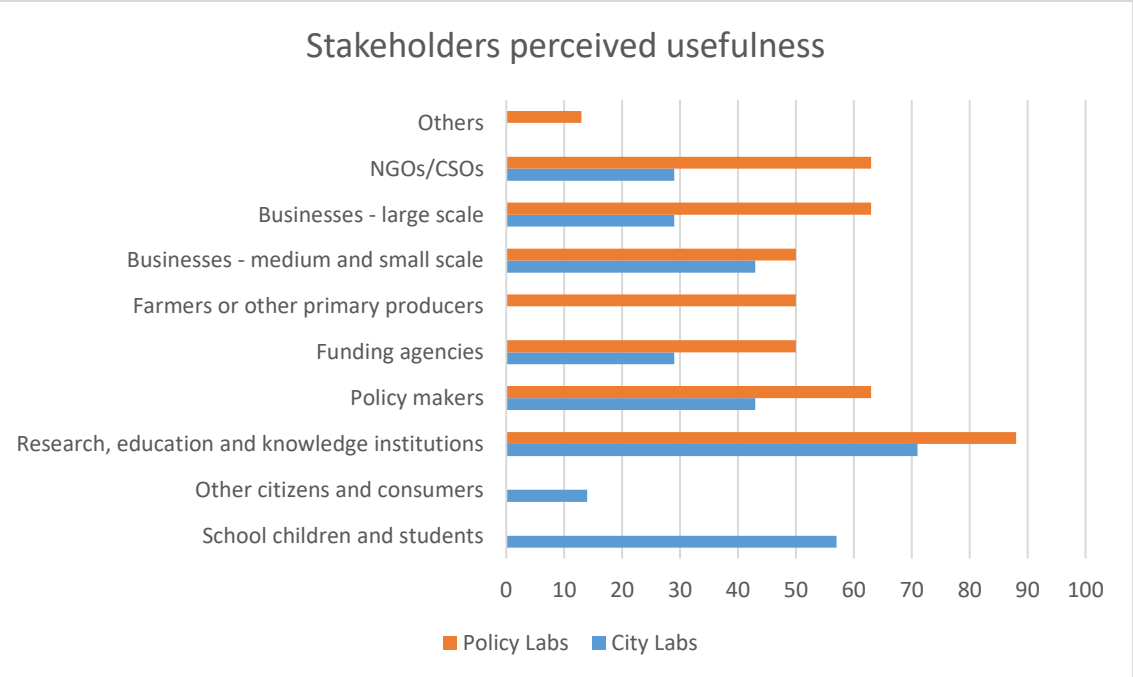

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Figure 5.22 The perceived usefulness of different stakeholder categories to labs, according to coordinators

Interestingly, Policy Lab coordinators consistently rate all stakeholder categories as more useful to labs than do City Lab coordinators, with some exceptions to be discussed below. Higher scores are given to research, education and knowledge institutions, which are no surprise, as the Policy Labs' main task is to prepare for, or inspire, changes in the field constituted by these institutions. Thus, the Policy Labs' activities directly influence research, education and knowledge institutions, and the desired transition also needs their support. Moreover, finding realistic and manageable solutions that the Policy Labs may try to implement, requires the context specific knowledge that these institutions have of this sector. In this sense, they are among the Policy Labs' most important stakeholders, and the fact that they have contributed in a useful way, is good news. Policy makers also receive high scores, which is positive for the same reasons. In addition, the scores indicate that the larger society have contributed productively, as both farmers, small-scale businesses and large-scale businesses score reasonably well. The exception is "other citizens and consumers" and "school children and students" receiving no scores. Given that the City Labs' have a dedicated function within the project to target these groups, this is perhaps to be expected. Still, citizens and consumers are important stakeholder groups for both types of Labs and should have been more involved. They may, however, be more involved than the scores just discussed seem to indicate, if we assume that some of the NGOs/CSOs represent these groups. A closer look at the data, confirms that this is the case.

So far, all the survey response we have discussed are, so to say, originating with the Lab coordinators' perspective as coordinators. We also included a set of questions inviting them to assess the outcome and impact of their Lab activities seen from the imagined perspective of stakeholders. More specifically, the questions focused on what the stakeholders got out of the project, as estimated by the Lab coordinators.

Figure 5.23 below represents the response to each question. The graphics summarize the share in percentages of coordinators from City Labs and Policy Labs who marked either "to a high degree" or "to a very high degree" for each response alternative.

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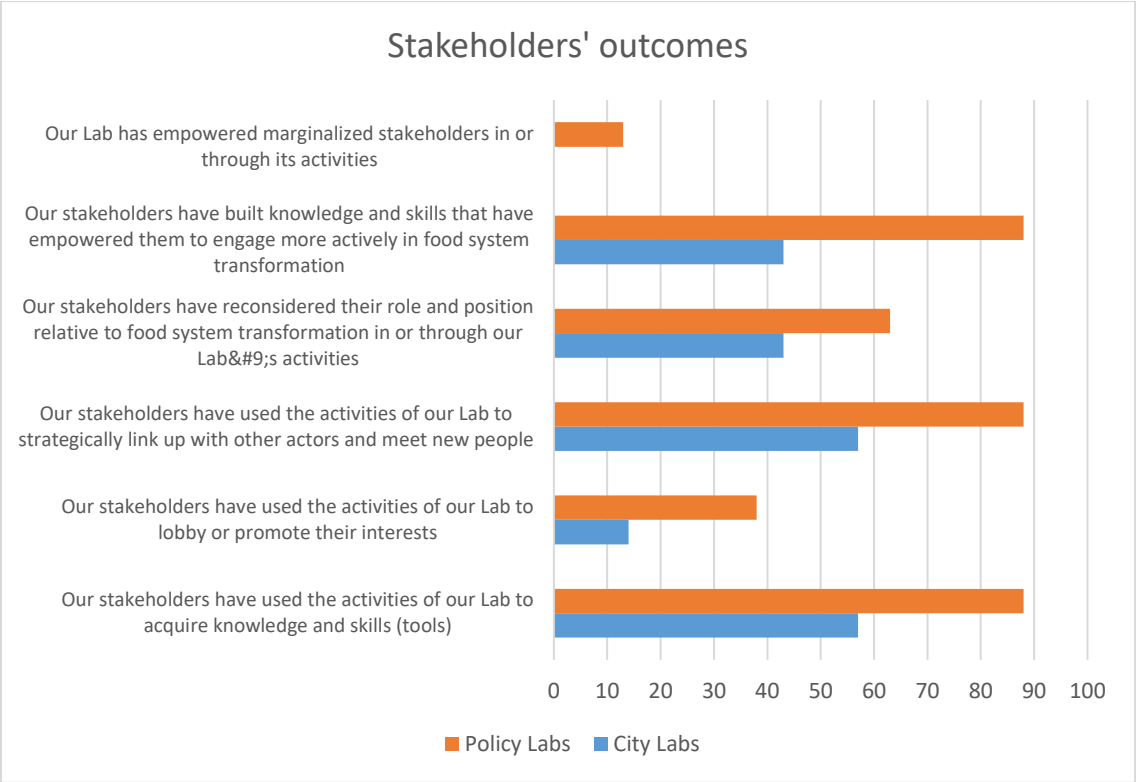

Figure 5.23 Outcomes seen from stakeholders' imagined perspective

The response illustrates that, based on the Lab coordinators' knowledge on what is going on, the stakeholders have achieved what they were supposed to, according to the theory of change informing FIT4FOOD2030 generally. Their achievements have come in the form of empowerment, through knowledge and skills, and to strengthen their networks. Moreover, they have actively used to Labs' activities to achieve these ends. Seen from the perspective of the Policy Labs, their stakeholders have done this to a higher degree, than for the City Labs. Interestingly, the question associated with the statement "Our stakeholders have reconsidered their role and position relative to food system transformation in or through our Lab's activities" also receives high scores, which signals that their stakeholders have not merely enhanced their knowledge and network. A deeper attitudinal change has occurred, in which they see themselves in a new light in relation to the Food system and its transformation.

The statement "Our Lab has empowered marginalized stakeholders in or through its activities" scores low according to the above graphics. Only one Policy Labs here responds "To a high degree". If we include those Labs that responded "To some degree", however, we find that almost half the respondents submitted this score, equally divided between City and Policy Labs. Obviously, empowering marginalized stakeholders is among the more difficult tasks that the Labs carried out, and in that light, the result is positive after all.

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Involvement of citizens, consumers and students through actions and events

In addition to the stakeholder database and network monitoring, various event audience number monitoring is on-going in cooperation with WPs 5-7. Engagement of citizens, consumers and students are explicit goals of the FIT4FOOD2030 project and will be reported on primarily through such forthcoming event reports. The individual stakeholder relationships reported through the stakeholder database include only a limited number of entries for these stakeholder types, partly because, as Lab coordinators comment, “everyone” is a citizen and consumer in addition to their professional roles. Another reason is that events originally intended to be held by City and Food Labs in 2020 based on educational modules targeting these groups have been delayed due to COVID-19.

Concluding remarks

As seen above, network development around FIT4FOOD2030 is in many respects exceeding the project’s initial expectations and goals. The stable growth of the associated network and high levels of engagement are encouraging findings. The lab coordinators’ expertise and enthusiasm, as well as their ability to combine existing networks with methods for identifying and bringing in new voices in the lab processes, are part of the explanation. There are still areas where improvements could be made however, such as in more engagement with fisheries and other actors from aquaculture.

Looking ahead, as the project nears its end in 2020 the stakeholder database becomes less important, and the developments around the Sustainable Food Systems Network (previously known as the FOOD 2030 Platform) become more important. The Sustainable Food Systems Network was launched as recently as August 2020 and gained almost 600 registrations over its first month of activity.

At the time of writing, efforts are underway to direct attention within the consortium to the importance of continuing network development during the final months and beyond, through the Sustainable Food Systems Network.

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6. Learning and reflection

Introduction

As has already been mentioned, learning was ascribed a significant function as an instrument in the theory of change defined by the FIT4FOOD2030 project. As previous knowledge on how to address complex transformation processes is limited, and as a variety of unexpected context-specific challenges are likely to appear in the process, the actors involved in such change have to develop the necessary knowledge on the way (Beers et al., 2016). Due to the manifold and number of actors involved, the learning needs to be not only individual, but also social.

Thus, the FIT4FOOD2030 project was designed with learning at its core, and significant resources were dedicated to this. Learning was organized at different arenas and through a number of activities, however with four major pillars.

1. A number of training sessions where participants met experts from the consortium for lectures, exercises and discussions, formed the first pillar, along with webinars offered on specific topics on demand.
2. The organization of a *dynamic learning agenda (DLA)* with a series of open learning dialogues.
3. Handbooks and other written material specifically designed in and for the project, and the project members use of this material.
4. Informal and self-initiated forms of learning, for instance bilateral dialogues between lab coordinators, or between lab coordinators and members of the consortium.

This chapter gives a further description of these pillars and their function, along with an evaluation of their effects, based on data from participants and others, followed by a more general discussion of the learning and its function within the transformation process initiated by FIT4FOOD2030. An overview of this data and how it was collected is found in Appendix 1.

Theory

The various theoretical approaches relevant for the learning aspect of the FIT4FOOD2030 project may be placed within the more basic theoretical framework of *pragmatism*, going back to, among others, the American philosopher William Dewey. Dewey's pragmatism connects our actions in the world with our thinking, and he sees the role of learning and education as a way to cultivate the latter in order to act still more 'intelligently'. Pragmatic learning theory, thus, is uniquely fitted to conceptualize the learning involved in change and transformation processes, and the setting up of aims and visions for such processes. Dewey's pragmatism is occupied with change, anticipation and consequences rather than recollection of the past – other than to understand the present and inform the future. "A pragmatic intelligence is a creative intelligence, not a routine mechanic" (Dewey, 1917 [1980]: 45).

Dewey's pragmatism also has a social dimension, as he sees it formed by the continuous transactions of persons, 'things' and environments in experimental and playful ways (Elkjaer, 2018). This social

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aspect is further emphasized in the concept of Communities of Practice (CoP), which also lends inspiration from the American pragmatist C. S. Peirce's and his concept of the "community of inquiry" (Shields, 2003). According to Lave & Wenger (Wenger, 2000), a CoP can evolve naturally because of the members' common interest in a particular domain or area, or it can be created deliberately with the goal of gaining knowledge related to a specific field. By sharing information and experiences with the group, members of a CoP learn from each other, and have an opportunity to develop personally and professionally. CoP's were intended to form an integral part of the learning and implementation of the FIT4FOOD2030 project. According to the projects description of action (DoA):

> *This [achieving the project's overarching goals] is best achieved by using a Community of Practice (CoP) approach to network governance. Building a CoP starts with bringing together multiple actors to form a community around a shared domain of interest. The participants share a passion, interest or a sense of urgency to progress together, often with respect to a specific topic. Through mutual engagement and by working on challenges in their shared domain of interest, members of a CoP generate innovative and creative solutions, and new practices.*

Another central concept related to learning explicitly cited in the DoA, borrowed from Bateson (1972) is the idea that learning comes in strata, and includes first, second and third loop learning focusing on the following questions, respectively: (1) "Are we doing things the right way?", (2) "Are we doing the right things?" and (3) "How do we decide what is right?". A similar distinction is found in Argyris and Schön (Argyris, 1978), whose theory again may be seen as an extension of American pragmatism, distinguishing between Single-Loop Learning (Following the Rules), Double-Loop Learning (Changing the Rules) and Triple-Loop Learning (Learning About Learning). Triple-loop learning involves "learning how to learn" by reflecting on how we learn in the first place.

Training sessions and webinars

Above, we stated that the learning in the project was organized around four major pillars. The first pillar is the training sessions and webinars. Regular training sessions have been organized. Some sessions, such as the first, included both City and Policy Lab coordinators, others were dedicated to only one of these groups. Each session typically lasted two days, and contained a mix of lectures, exercises, workshops, and discussions.

The topics of each session reflected the relevant project phase and the main challenges of relevance in each of the phases. The first training session, for instance, sought to establish an understanding of the theory behind the project, such as its systems perspective, and its corresponding theory of change. To anchor this understanding, participants had to prepare posters presenting their local national or regional food systems, with its main barriers and resources. Stakeholder identification and involvement and workshop design was another topic extensively dealt with early on, to help the coordinators prepare for the involvement of relevant stakeholders in their lab activities. In a later phase, where the City Labs were starting to experiment with learning modules, part of a training session was dedicated to this issue. An overview of the sessions with their topics is found in Appendix 7.

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Learning outcomes of the training sessions

When asked to assess the overall learning outcome of the training sessions in a survey at the end of 2019, 70 % of the lab coordinators responded that they had been useful «to a high degree», while the rest responded «to some degree». When asked to give a more detailed account of this outcome in interviews, several issues came up. Some emphasized that the trainings had been useful by allowing the coordinators to get to know specific methods that could be used in various phases of the construction of their labs or their interaction with stakeholders, such as workshop design and facilitation. A particular point emphasized was the value of being allowed to experience these methods in practice during the trainings. A Policy Lab coordinator stated, for instance:

> *We had workshops with the group work and breakout sessions. This has really refined my understanding of how you can facilitate a workshop. It is about, what do you really want to achieve… what kind of impact do you want to have? It has to do with asking the right questions, and the possibility of conflicts around the table. You need to have a plan for tackling that. So that is a thing I have been really made aware of.* (Policy Lab coordinator)

The point is not just that you need practice to learn to design or to facilitate a workshop, in addition to theory. There is also the additional point that doing something in practice, or just taking part in a practice as a participant, provokes further reflections and insights. Participants may start to reflect, for instance, on how to adapt the method or practice to their own context. Another insight pointed at, was that a workshop method that at first sight appeared strange or frightening, was not so bad after all. For instance, vision exercises were central in the first training. In one, participants were encouraged to use a piece of clay to visualize a vision; another used guided meditations for the same purpose. Both the fact that they were invited to enter such activities themselves, and the possibility of using the exercises with stakeholders, created some initial anxiety among the lab coordinators. However, their actual experience of doing the exercises in a safe environment during the training, were mainly positive, and made them feel more empowered to invite stakeholders to do the exercise later. One lab coordinator says:

> *One of the activities we did in Amsterdam, was the visioning when we were playing with clay to build ideas in a creative way. […] So, what we are not so good at doing, and what I would like to know more about and have more support for, is this opening up of the imagination; the imagination of the future with creativity, not with rationality*. (City Lab coordinator)

One of the Policy Lab coordinators also emphasized this point:

> *If you do it [try out workshop methods] in the Policy Lab trainings, it works a lot better, than if you read about it in a book. So, yeah, my experience is that if you already tried out such a methodology, that learnt you how it could work in certain situations. […] So, yeah, learning by doing is the method, it's the way to learn. For me, it has been very valuable.* (Policy Lab coordinator)

Another useful outcome of the training sessions that were emphasized in the interviews was that they offered an opportunity to meet and get to know and discuss with other lab coordinators and consortium partners. Through these discussions, a number of learning outcomes emerged. For some it was useful to discuss the project's theoretical background, such as the food system perspective, with other coordinators. Others emphasized the value of sharing and discussing the different strategies that different labs developed and implemented.

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> *I think that all the Policy Labs are different and they have chosen their own way of working that responds to the specific conditions of their country. And it's very interesting to listen to, and to understand, how different the different countries relate to the food system, and what they want to achieve with their Policy Lab.* (Policy Lab coordinator)

At first sight, and as some coordinators pointed out, the fact that these strategies were so different, reflecting the differences in local or national food systems and challenges, seemed to form a negative condition for learning. However, by discussing these differences more extensively, and by reflecting on how different conditions or challenges had generated different strategies, a form of common learning still took place. This learning circled around the underlying principles or logic involved in making these strategies, which emerged as more generic, and therefore more relevant for the coordinators more generally.

The Dynamic Learning Agenda (DLA)

A *Dynamic Learning Agenda* (DLA) is a method for challenge-driven reflection and learning. It is useful for groups involved in complex change processes, like the labs and other members of in the FIT4FOOD2030 project. The DLA approach was introduced into the FIT4FOOD2030 project based on experienced from earlier projects (Van Mierlo et al., 2010; van Veen, de Wildt-Liesveld, Bunders, & Regeer, 2014), and was slightly modified to fit the specific conditions of this project. A handbook for the DLA method made specifically for the FIT4FOOD2030 project was produced and may be found in Appendix 8 to this report.

In a DLA, attention is given to the challenges arising in complex transformation processes, and strategies are sought for how they may be met. A central element is the open learning dialogues that are organized as part of the DLA, in short, *the DLA sessions*. Here participants join a dialogue, using their reflective, analytic and creative skills, as well as earlier experiences, to discuss the challenges at hand.

DLA sessions were organized for the Policy Labs and the City Labs separately. Most sessions were organized as video conferences. Additionally, a few DLA sessions were organized at some of the training & learning session in Brussel and Amsterdam. Between January 2019 and December 2020, DLA sessions were organized roughly bi-monthly, with *eight DLA sessions for the City Labs*, *nine for the first batch of the Policy Labs*, and *three for the second batch of Policy Labs*, and finally one for the first and second batch together.

Each DLA session focussed on learning questions that were submitted in advance by the lab coordinators to the organizers of the sessions (WP8), where those questions that seemed more pressing at the moment, and were relevant to more labs, were selected for discussion. The coordinators were also involved in this selection process. They were also invited to share small success stories that were then shared and examined in the sessions. In the very first sessions, they were also invited to establish an explicit systems perspective and discuss their learning questions within the context of their urban, regional or national food systems, with a focus on resources and barriers, and their own potential roles as change agents within the system. Due to the combination of the complexity of each labs food system, and the difference between them, and the limited time available in each session, we eventually abandoned this as a mandatory demand, but continued to set focus on it whenever it seemed useful.

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For each learning question, the dialogue started with an analysis of the question with the aim of understanding the underlying problem or challenge that the question referred to, followed by a more solution-oriented phase, based either on positive experiences that others had had handling similar problems, or brainstorming searching for other potential solutions. The dialogues were actively facilitated by WP8.

What questions were discussed in the DLA sessions?

One advantage of organizing and monitoring DLA sessions as part of a project, is that it gives an overview over which questions and challenges are essential to individual participants and groups, and the project as a whole, in different project phases.

After an analysis, the questions that were proposed in the DLA sessions of the FIT4FOOD2030 project were found to belong to four main categories of questions.

- Questions regarding *stakeholders* concern both the challenge of identifying stakeholder, or deciding whom to contact, and the challenge of raising and retaining their interest and willingness to involve themselves in project activities.
- Questions regarding *workshop issues* concern how best to organize meetings and workshops with stakeholders, both regarding their general setup and facilitation, and special methods or tools. The Policy Labs were supposed to organize a number of national meetings with relevant stakeholders, and questions pertaining to these fall under this category.
- Questions regarding *focus* concern the task of finding a vision or set of goals for the lab, which would also align with the interests of the stakeholders getting involved. In some cases, the challenge was more related to this latter aspect, while in some cases it was also presented at a more general level, connected to the vast number of opportunities, and the problem of choosing among these, given the high amount of autonomy granted to the labs.
- *Other* questions. Then, there were a group of more diverse questions, which have been categorized as *other*, which could be, for instance, «How can we make sure to succeed in building and maintaining a network that is robust and well-functioning?». There were also questions related to time management, such as «How do I manage my time, energy, and resources as a coordinator [given the limited amount of time available]?», and questions related to impact, such as «How do we measure the transformation that participants are experiencing?»

The figures below give an overview of the frequency of questions within these four categories for the policy and City Lab DLAs for 2018 and 2019. The columns represent the share (percentage) of each category within the total number of questions submitted during that year. For instance, we see for the Policy Labs that in 2018, the first year of the project, questions about *focus* were more frequent, followed by *workshop issues.* The following year, questions related to stakeholders increased considerably, and so did *other* questions, whereas the *focus* questions receded more into the background. The below figure summarizes the questions of the first batch of Policy Labs. When the second batch of Policy Labs entered the project in 2019, their questions were more like the first batch had had in the beginning.

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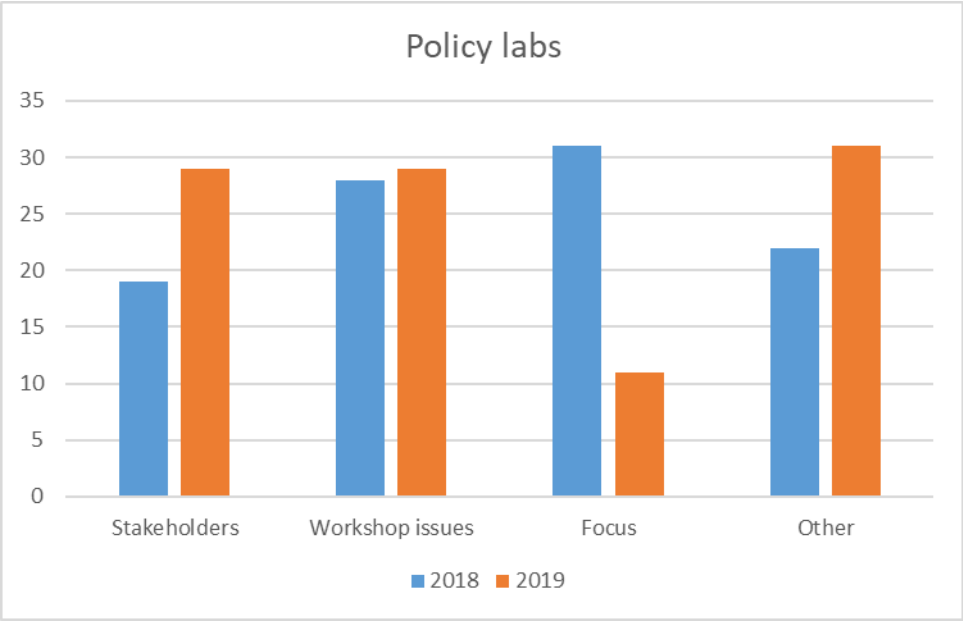

Figure 6.1: Number of learning questions pr category from Policy Labs in the first two years of the project

For the City Labs, a similar overview is provided in Figure 6.2 below.

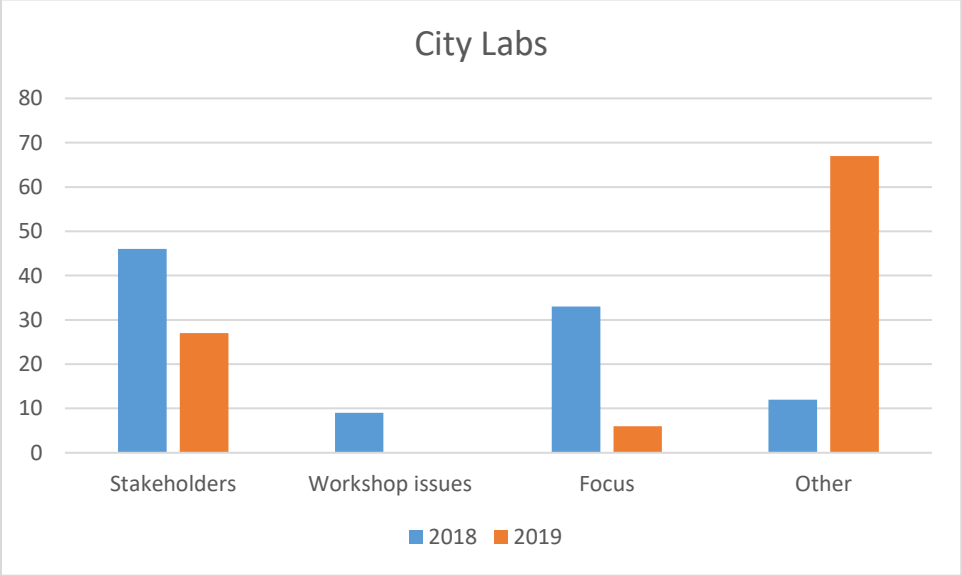

Figure 6.2: Number of learning questions pr category from City Labs in the first two years of the project

As we can see, questions relating to stakeholders and focus dominated the first year, followed by questions relating to workshops. In the second year, questions about stakeholders became less frequent, and questions about workshops disappeared altogether, whereas «other questions» got

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more dominant. The lion's share of the latter category was now about the educational modules that the City Labs were producing, and the testing out of these modules.

Overall, the dynamics of the learning questions reflect the general logic of the City/Food Labs and Policy Labs respectively. For both lab types, the task of identifying and engaging stakeholders appears as a continuous challenge throughout the project. However, while the magnitude of this challenge seems to decline for the City/Food Labs the second year, it is accentuated for the Policy Labs. This probably reflects a basic difference between the two lab types. The City/Food Labs' main task in the project is to design educational modules, in collaboration with stakeholders, which is then to be tested and exchanged between labs. These labs' learning questions related to stakeholders reflect that their collaboration with stakeholders mainly occurred in the beginning, or that the stakeholders they found, stayed with them. The Policy Labs on the other hand, were tasked with organizing a series of national meetings, continuously reaching out to new groups of stakeholders. In addition, because regional and national elections resulted in new office holders in position strategic to the Policy Labs, they often had to start, so to say, from scratch to build relations to stakeholders within the political system. The intended «product» of the Policy Labs in the form of new policy documents or policies, also meant that they had to have a more continuous contact with relevant stakeholders.

Finally, the challenge of engaging these stakeholders also might have been higher for the Policy Labs who operated at the national level, than for the City/Food Labs, who were working in a local environment.

The significant amount of workshop related questions from the Policy Labs also reflect the number of national meetings they were supposed to organize.

Learning questions October 2020

At the time of writing, the DLA sessions have been temporarily suspended, and have been replaced with joint webinars since the spring of 2020. However, in order to monitor changes in the Labs' learning questions, we asked the Lab coordinators to list their most current questions in the 2020 survey. There is no unambiguous pattern in the questions, except, non-surprisingly, more than one question relates to the sustainability of the Labs. Also, some questions which have been present since the beginning of the project, still persists, for instance questions related to stakeholders. Rather than being mere replicas of former questions, however, they now relate to more specific aspects of the challenge of engaging stakeholders, such as one coordinator who wonders how to best engage consumers in designing a research agenda. A complete list of questions may be found in box 6.1.

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Box 6.1: Learning questions October 2020

Policy Labs

- How do we strenghten the involvement of the ministries involved in the Policy Lab in order to make our ongoing activities more effective.
- How can we involve consumers in building a research agenda, without any resources to reward them.
- How can I improve my facilitation of discussions to give them a clearer direction? And how can I get better in systematizing the results of such discussions?
- How do we secure the the sustainability of the Policy Lab?
- There is still a long way to go to learn how public funding bodies can facilitate a transformation of the food system.

City and Food Labs

- How does one coordinate with other regions at national and international levels the governance of systemic innovation related to specific challenges?
- How are we to become more successful with the success ratio of participants, specially among those stakeholder groups that are participating in lower numbers.
- How do we improve in recognising and taking advantage of opportunities that can be used to anchor our activities?
- If additional funding is not secured, how can our lab activities be sustained?
- Which activities can best secure the active engagement of stakeholders and support in the educational process?
- After working for a long time as a Lab coordinator, I feel that I still don't know enough about all local stakeholders.

Learning outcomes of the DLA sessions

When asked to assess the overall learning outcome of the DLA sessions in a survey at the end of 2019, half of the Policy Lab coordinators responded that they had been useful «to a high degree», while the rest responded «to some degree». Among the City Lab coordinators satisfaction was slightly lower. This difference in satisfaction reflected an observation that we made in facilitating the sessions, where the Policy Lab coordinators seemed generally to be more used to – and therefore also more skilled in – participating in group dialogues, perhaps because they were more frequently involved in similar dialogues as part of their daily work as government officials.

The participants were also asked to evaluate each session just after it had ended by filling out a brief survey. The following graphics give an overview of the response for some of the variables examined. The response relates to six subsequent DLA sessions taking place in 2018 and 2019. The very first DLA

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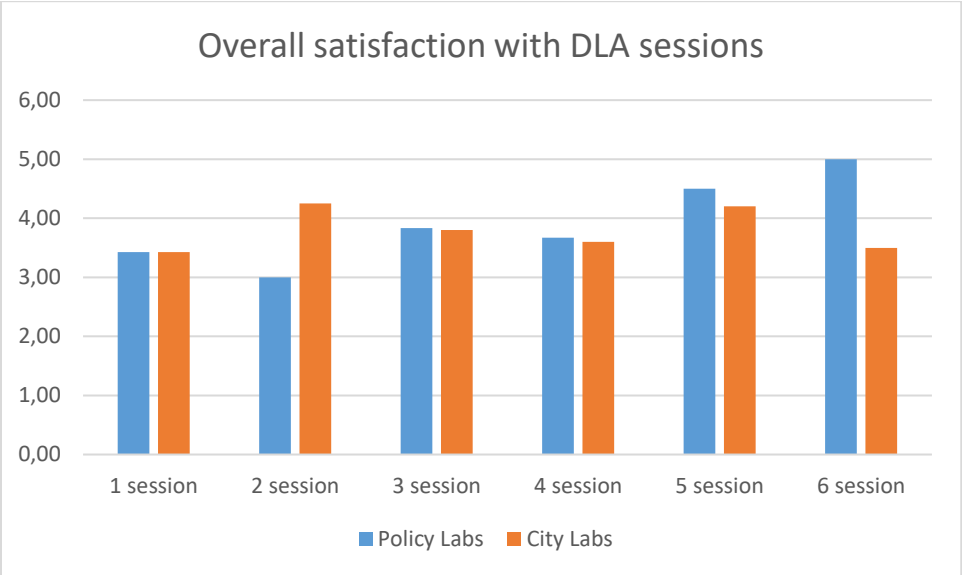
sessions are not included here, as the system for session evaluation was not in place for these. Each session had in average 5-8 participants.

Figure 6.3 below gives an overview of the response to the question "What is your overall satisfaction level with this DLA session?" for the Policy Labs and City Labs respectively.



Response from 1=Very low to 5=Very high

Figure 6.3: Overall satisfaction with DLA sessions

Figure 6.4 below gives an overview of the response to the question "To which extent did you find the topics discussed in this session to be relevant to the challenges that your own Lab is facing?" for the Policy Labs and City Labs respectively.

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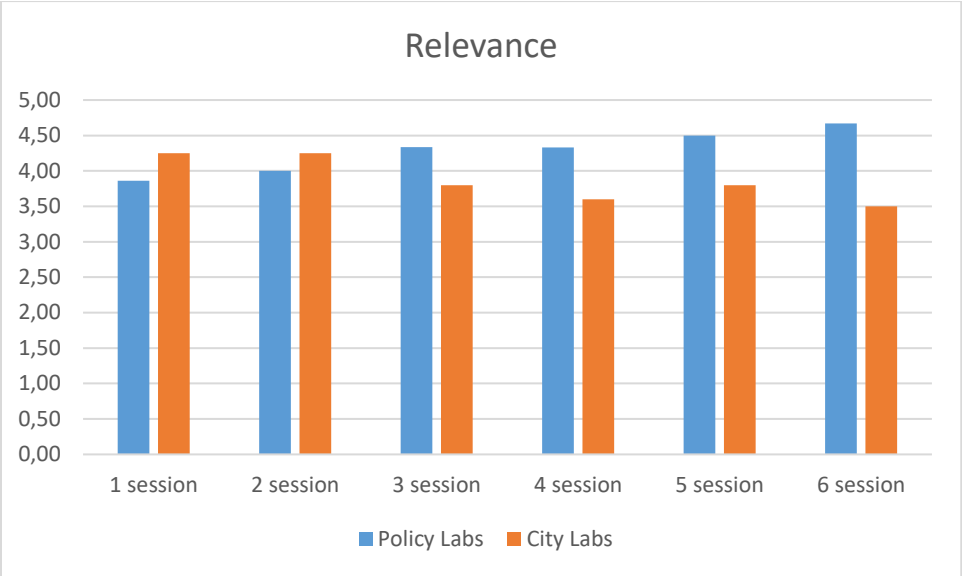
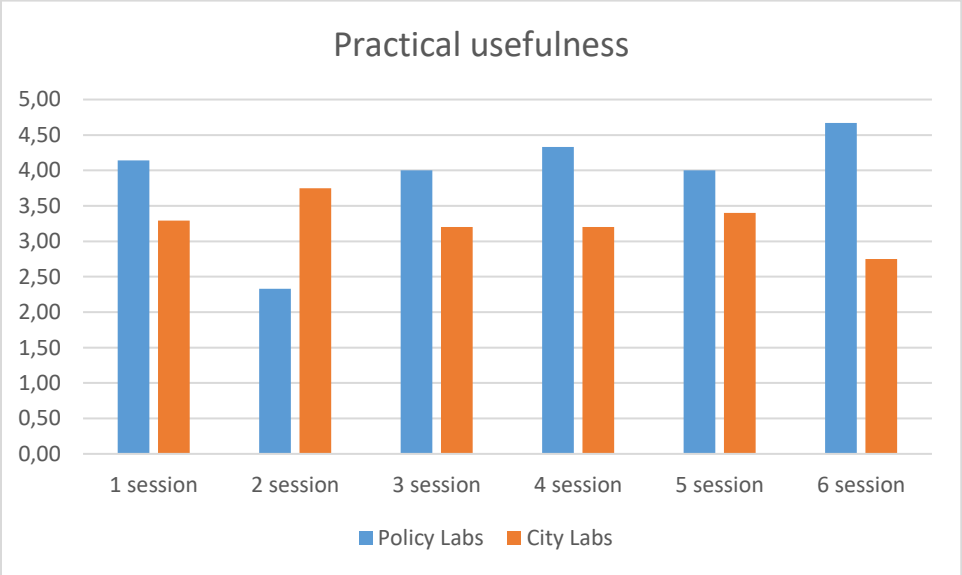


Response from 1=Very low to 5=Very high

Figure 6.4: Perceived relevance of the questions discussed

Figure 6.5 below gives an overview of the response to the question "To which extent did you learn something during this session that is likely to be useful to your work in your own Lab?" for the Policy Labs and City Labs respectively.



Response from 1=Very low to 5=Very high

Figure 6.5: Perceived practical usefulness of the DLA sessions

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A pattern that may be observed in each of the three above variables, is a slight increase in positive scores for the Policy Labs, while the results for the City Labs are more mixed. And again, some of the explanation may be that the Policy Lab coordinators were generally more used to – and therefore also more skilled in – participating in group dialogues, perhaps because they were more frequently involved in similar dialogues as part of their daily work as government officials.

When asked in interviews to elaborate on their outcome from the DLA sessions, several points were made. One point relates to *knowledge sharing* in the traditional sense, for instance, when one lab described how they had dealt with a specific challenge and this inspired other labs to try the same strategy. Alternatively, they could share examples of methods they had tried out that inspired the others. For instance, the Hungarian Policy Lab developed a method for visualizing their food system (cf. Figure 3.4 above), which highly impressed the other Policy Lab coordinators, and a number of them implemented the same visualization method in their labs.

A frequently cited outcome was also the more subtle, but still highly significant experience of being part of a learning community, and how this generated a climate promotive to learning, for instance by offering social support and empowerment. One issue to this effect, were simply to listen to other coordinators communicating that they struggled with the same problem as oneself. Especially in their first project phase, many felt it comforting to hear that they were not alone in having a problem, and consequently that their lack of initial success did not necessarily reflect their individual incompetence. Here are some quotes from the coordinators:

> *We realized that all of us faced these struggles and that was also a first thing that was nice to think about. You're not the only one having that problem. Things are not easy and smooth.* (City Lab coordinator)
>
> *This session was valuable for me as it gave space for voicing issues that I previously only thought about alone.* (City Lab coordinator)
>
> *…such discussions and exchanges are very useful and very needed, because I think that all the coordinators had some struggles in the way.* (Policy Lab coordinator)
>
> *They [the DLA sessions] were useful as we were able to chat with all of the City Lab members, coordinators, and see how far they were, what they were struggling with or how they are doing with successes*. (City Lab coordinator)

As we hear from these quotes, knowing that they were not alone in facing a challenge contributed to a sort of empowerment, even if the problem was not immediately solved, as it reduced stress and served to de-dramatize the situation, thus giving the coordinators a renewed belief that they would come out on top of the challenge.

Another point made, was how listening to the ongoing discussions, and especially noticing the different strategies chosen by the labs – typically as a response to local conditions – triggered a reflection in the other participants, which, even if it was perhaps not immediately articulated, was valuable. In this process, two things typically happened. First, the multitude of strategies shared created an awareness that there were many such strategies to choose from, which was in itself inspiring. Secondly, each coordinator was triggered to reflect on how the different strategies would respond to the specific conditions of his/her Lab, and more generally, to explore the idea of such a match between local conditions and strategies more generally. Here are some quotes that illustrate this point:

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And then by listening to other approaches and practices, can get you problematize… enrich things that you have in mind in order to proceed with your activities. (City Lab coordinator)

Because local context is really important, not everything can work in your context. You also need to critically think and select and decide if you want to follow an approach that has worked in another context. But all those exchanges are needed and useful. (City Lab Coordinator)

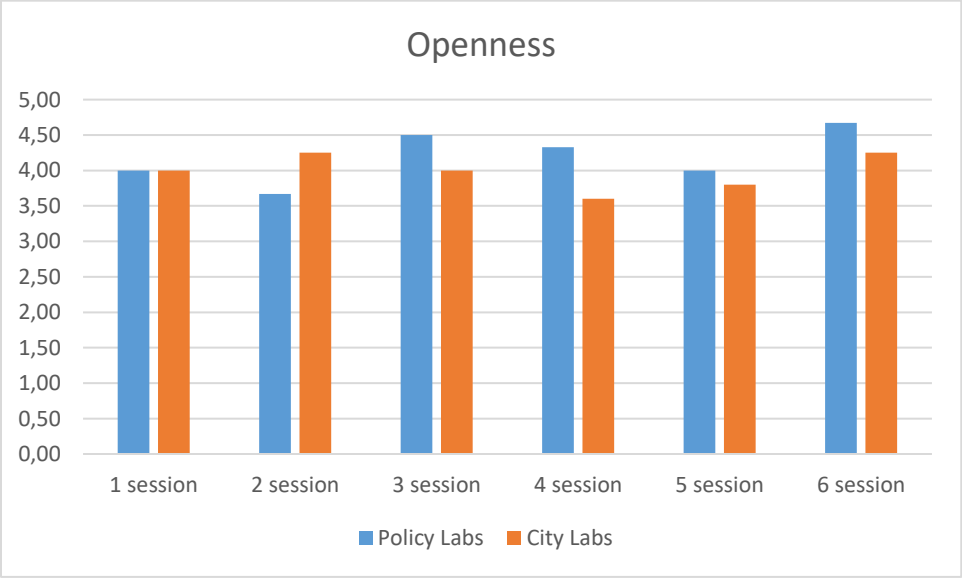
This quote from one of the Policy Labs coordinators points at a similar point:

So that is why I think the other labs are kind of having other challenges, although still on a kind of certain level we have similar challenges. …We are studying completely different topics, completely, but we are in the same situation of doing the process. So, it is the same thing. You have different, different competencies, different positions, but you basically have the same or similar objectives. You are doing the same process. So it is… kind of a community it is important to be part of. (Policy Lab coordinator)

Dialogical qualities

When the DLA sessions were introduced, a system for monitoring the dialogue quality of each session was set up, in order to check – as we assumed – that there was a connection between this quality and the outcome of each dialogue. After a review of the dialogue literature (Anderson, Baxter, & Cissna, 2003; Elsdon-Baker, 2013; Murray-García, Harrell, García, Gizzi, & Simms-Mackey, 2014; Wortel & Verweij, 2008; Zimmermann & Morgan, 2016), we decided to focus, among other things, on openness and exploration.

Openness was measured with the following survey question: «To which degree did you feel that it was easy to propose questions, ideas and opinions [during the dialogue]?" Figure 6.6 below summarizes the response.



Response from 1=Very low to 5=Very high

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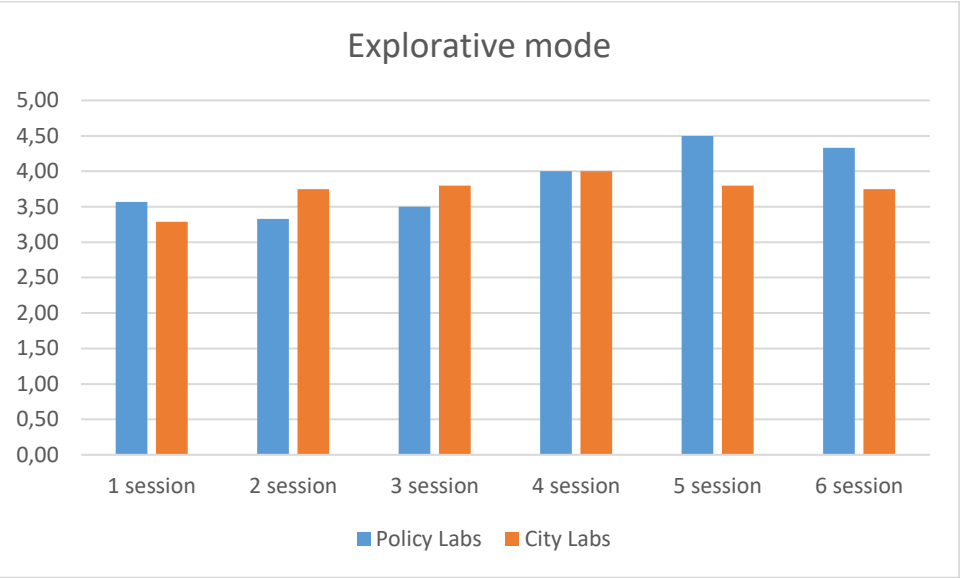
Figure 6.6: Participants perceived openness in the DLA sessions

Exploration was measured with the following survey question: "To which extent do you find that you as a group entered an explorative mode during the session? (By 'explorative mode' we mean a dialogue where participants explore each other's contributions, either by asking for clarification, or by asking for more details, or for 'the larger picture', with the aim of arriving at an enhanced understanding.)" Figure 6.7 below summarizes the response.



Response from 1=Very low to 5=Very high

Figure 6.7: Participants perceived explorative mode in the DLA sessions

For both these variables, we see that there is a slight increase in scores over time, especially for the Policy Labs (even if the increase is not fully consistent). A possible interpretation if this is that the dialogical quality of the sessions increased, perhaps as a consequence of the DLA method becoming more familiar, resulting in an increase in the levels of openness and exploration, this further results in the higher levels in satisfaction represented by the earlier graphics.

This interpretation is confirmed by the interviews. One City Lab coordinator says:

> *These DLA sessions, they really progressed through a better environment over time, which is very good. They became more open [laughing], and […] maybe there was some passive opposition at first, but I think we overcame it and the structure of these DLA sessions…. we don't argue with that anymore… I guess this made it even more useful*. (City Lab coordinator)

Another City Lab coordinator says:

> *I feel that there is a learning curve for us as a community of practice, and that we are able to do them [the DLA sessions] better and better in terms of providing a space for learning and reflection.* (City Lab coordinator)

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The point implied here may be obvious, but still worth making: Building a well-functioning community of practice may take some time, especially when its members don't know each other in advance, and come from different backgrounds. By spending time together in dialogue, however, one does not merely profit from the insights produced in the immediate dialogue, each dialogue also builds the relations that the Community of Practice needs for its establishment.

The webinars

During the first months of 2020, we received signals from the labs that they needed to be offered digital learning sessions in another form, focussing on specific topics that were of particular significance, and with a higher degree of expert input. From fear that we would overburden them if we added this on top of the DLA sessions, given their very limited time («lack of time» was rated as a major barrier in a survey a few months earlier), we decided to take a break from the DLA sessions, and instead offer a series of webinars that responded to their stated needs. However, acknowledging the value of open dialogues, we emphasized that all the webinars should be interactive and give room for dialogue.

Each webinar consisted of a 15-30-minute introduction followed by questions and discussion, in total 90 minutes. The introductions were offered by consortium partners with expert knowledge on the relevant topic. The aim of the subsequent discussion was to explore the relevance of the webinar's topic to the reality of the Labs, and to seek to mobilize the shared insight of the participants relative to this topic. Each webinar was open to both City, Policy, and Food Labs. Preparatory materials were made available in advance. Four webinars were offered:

- 'Power & Vested Interests' by Kris Kok, VU
- 'Dialogue, trust and conflict management' by Helge Svare, OsloMet
- 'Small wins' by Barbara Regeer, VU
- 'Impact Narratives' by Helge Svare, OsloMet

A more comprehensive presentation of the webinars may be found in Appendix 9.

In the survey from September 2020, 40% of all respondents found the webinars useful to a high or very high degree, while 40% found them useful to some degree.

Other learning arenas and activities

In a complex project like FIT4FOOD2030, the learning taking place – and the learning that needs to take place – goes beyond the organized learning taking place at organized learning arenas. At a general level, this has to do whit the unpredictability of challenges, and which particular challenges appear in a specific setting, that the more general approach cannot cover. The need for such learning also has to do with the fact that learning is never complete but needs to be a continuous process. For instance, after a learning session, participants need to reflect and elaborate on the learning they bring back to their local or national context, and how it may be applied there. They also need to practice acquired skills in order to test and improve them. In the following, we will look at some of these types of learning, taking place outside of the organized learning arenas, some of which are more social or organized, and some more individual.

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One such type of learning is the informal dialogues taking place between lab coordinators and/or consortium partners during breaks in the formal trainings or during other meetings, or in other settings. One coordinator emphasised the discussions that were typically taking place when the participants met for dinner after the trainings, and how these discussions functioned as an arena for reflection and elaboration of the topics of the training session. They could, for instance, focus at how these topics related to the specific conditions in each city or country, and again, just listening to such discussions could trigger interesting reflections relative to one's own context.

> *I learned a lot from the other countries from the discussions we had at the dinners ... You can learn so much from how policymaking works in other countries.* (Policy Lab coordinator)

These informal discussions were also often more open and honest, one coordinator emphasized, which could mean that people were less afraid of admitting what they found difficult, or that they allowed themselves to be more critical.

One coordinator also emphasized the value of discussing the topics from the trainings with colleagues at home.

> *Talking with the others, I realized that we could… how to embed this in our activity. And, these ideas did not so much come from me. It was my staff who had this idea. This was inspiring for my own learning, because my kind of learning is very social. So discussing with them is to rethink something that I heard in a new way and learning properly. Because learning is not something that happens once like this, but you have to discuss and go on and discuss the possibility how it can be used*. (City Lab coordinator)

Quite a large number of coordinators also emphasized how much they had learned through discussions with stakeholders. This had to do, for instance, with collecting information and forming an improved understanding of the local context in all its complexity. The stakeholders were also involved in suggesting ideas for how local challenges could be faced, or how the aims of the lab could be realized. As one coordinator said:

> *I mentioned before that we devoted a lot of time to the exploration of the complexity of the problems and the factors within these problems. So they [our stakeholders] contributed to that. They also contributed to give us examples of actions that could be taken. […] For example, we had a teacher, I mean, she explained the problems in the current education in regard to food, and the difficulties that students have regarding education in food. Another person working in industry taught is about the challenges that these industries are facing.* (City Lab coordinator)

The potential for learning, both in organized and non-organized settings, increases significantly the more active and independent a person is, both in identifying what he/she still needs to learn, and how to respond to this need. Ideally, whenever an individual is confronted with a challenge that his/her present level of knowledge or skills forms a suboptimal ground for handling, he/she should initiate a learning event that could improve the situation.

One type of such learning could be to turn to the relevant literature. Among the coordinators, several mention how they used this strategy when they faced a challenge. Some studied books on workshop design or methodology; other began to orient themselves more in the scientific literature on food systems or policy design. One coordinator said.

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I studied transformative change, issues that I knew little of as food scientist. I needed to know certain definitions, so I read through the scientific literature. (Policy Lab coordinator)

Another coordinator stated:

We started to read more about the main priorities, like nutrition, circularity, and environment. This was also very interesting, because I had to read a lot before the seminars [national meetings], how to build the seminars with this kind of people. How to ask questions, how to collect information, how to build the conclusions for them also, because they were also very interested to see which are the conclusions. So yes, because it was interesting in this from this point of view. (Policy Lab coordinator)

A third coordinator mentioned how she had used the internet to search for information:

And also using the internet a lot, reading articles, reading about other people and how other projects are doing things. So, I used different methods. I was also fortunate in the meantime to attend trainings not connected to this project. When I can, I usually do attend extra trainings, so I did 'art of hosting', now 'design thinking', so learning specifically about different methodologies and approaches. (City Lab coordinator)

Finally, we have the learning emerging from trying things out in practice, and the experience and reflection associated with this process, in short, learning by doing. We have already seen how coordinators emphasize the learning outcome produced by being allowed to try out in practice certain workshop methodologies or exercises during the trainings. This is one form of learning by doing that a majority of the coordinators praise in retrospect. However, a similar type of learning by doing also take place when coordinators set out to implement such methodologies in their local context.

I think I learned a lot from just doing things, so... Just facilitating a session and then sort of reflecting on it yourself, which was helpful, and also talking about it…Yeah, I think most of all I learn just by doing things and just, find things out, talking with people. (City Lab coordinator)

Another coordinator stated:

How I learned or acquired competencies during this project? By doing things mostly [laughs]. The learning by doing was very much present. Looking back to how I felt when I was doing the first workshop and then all the next ones – yeah, I definitely gained experience. Also by talking to people – I was quite conscious about picking the brains of people that I thought knew more. (City Lab coordinator)

In a comment added to the 2020-survey, a City Lab Coordinator again confirms the same point:

I'd highlight the initial workshops that I organized, as well as the whole journey of developing, piloting, implementing the various modules. Engaging in this process served as the most valuable learning for me. (City Lab coordinator)

One aspect of learning by doing is that the through the experiences and reflections made, ideas are generated on how to do things differently or better.

What I would you do differently with regard to the involvement of stakeholders if I could do it again? Maybe to separate them more in some moments, or to build questions in a way that

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are closer to their particular perspective. More concrete or understandable, more relevant for their practice. Yeah, just not throw to them big general questions about sustainability and the future of the world. (City Lab coordinator)

General overview of learning arenas/activities and learning outcomes

In the survey of November 2019, we asked the coordinators to evaluate the relative usefulness of the various forms or arenas of learning in the project. Here we included both "learning by doing" as a category, and "the printed material produced by the project". Moreover, we included informal dialogues with other coordinators, and with ZonMw, the consortium partner acting as main coordinator and contact point for the Policy Labs, and Ecsite acting as main coordinator and contact point for the City and Food Labs. The question was: "To what degree have you found the following activities or contexts useful for your learning in the FIT4FOOD2030 project?" Figure 6.8 and 6.9 below summarizes the answers for the City Labs and the Policy Labs respectively. The graphics show the share of respondents answering, "to some degree" or "to a high degree". Other options, not represented in the graphics, were "Not at all" or "To a small degree".

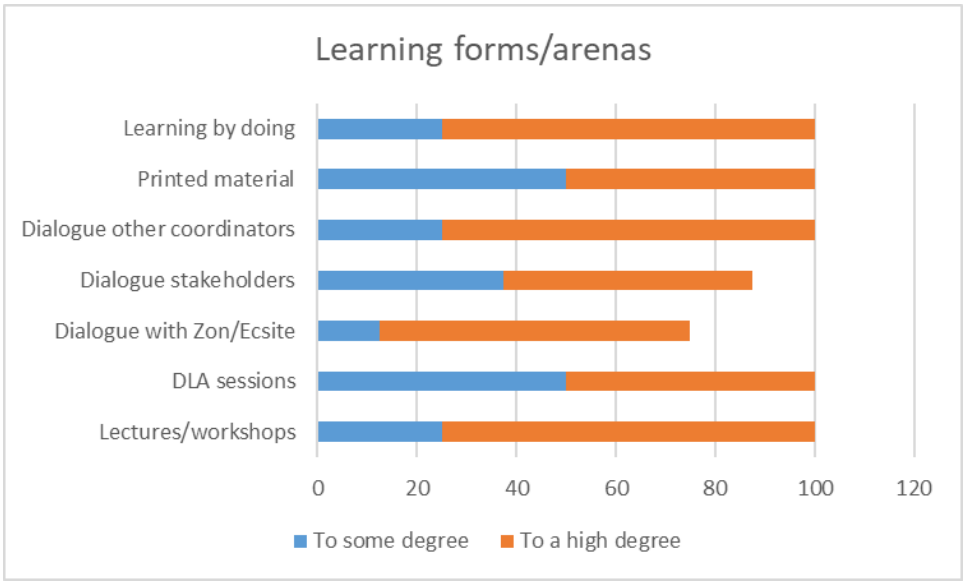

Figure 6.8: Perceived usefulness of Policy Labs of different learning arenas

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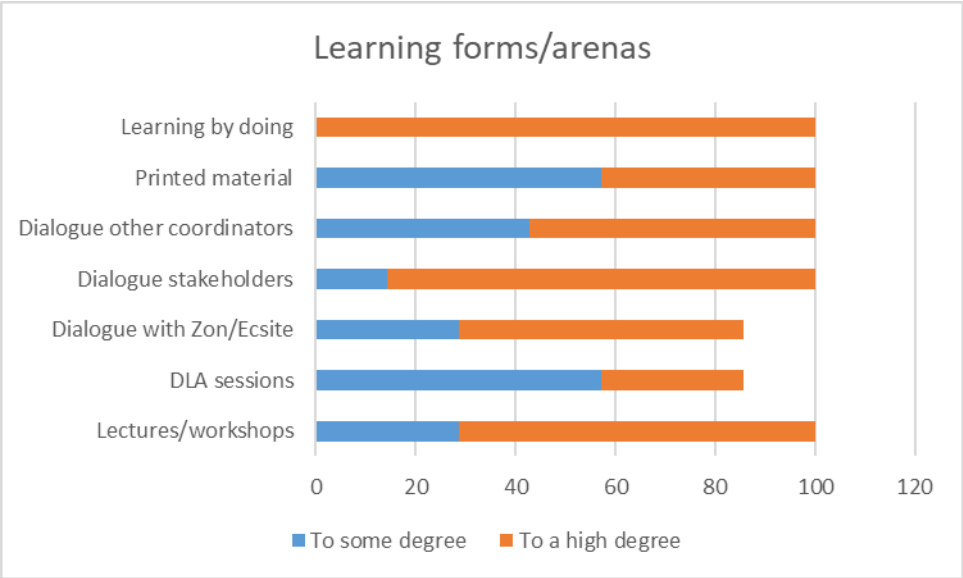

Figure 6.9: Perceived usefulness of City Labs of different learning arenas

Interestingly, for both types of labs, learning by doing scores very high. Among the City Labs, all the respondents gave this the highest scores, while among the Policy Labs, almost four out of five did the same. A significant share of high scores are also granted the trainings (lectures/workshops). The informal dialogue with other coordinators receives high scores between both lab types, while the informal dialogue with stakeholders receive higher scores among City Labs. The DLA sessions, on the other hands receive higher scores from the Policy Labs, which is consistent with the findings referred to above.

This survey also gave us an opportunity to assess the value of what we have defined as the third pillar of learning in the FIT4FOOD2030 project, the handbooks and written material. The scores measuring learning outcome is quite good for this material.

When we asked the same question in a survey in September 2020, we received this response, cf. figure 6.10. The figure summarizes the share in percentages of coordinators from City Labs and Policy Labs who marked either “to a high degree” or “to a very high degree” for each response alternative.

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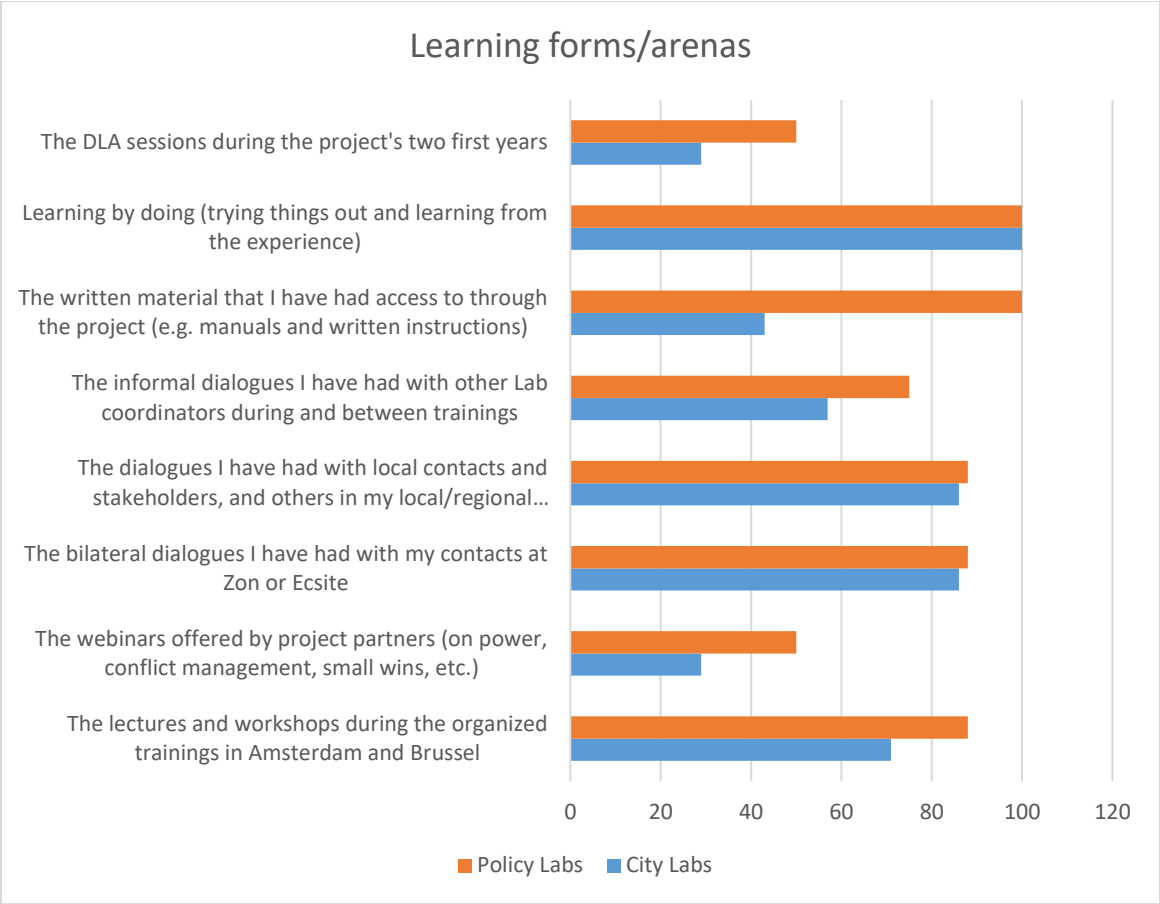

Figure 6.10: Perceived usefulness of different learning arenas

Learning by doing still scores high for both lab types, as does the bilateral dialogues with ZonMw and Ecsite, and the informal dialogue with local stakeholders. The written material is judged to have a higher usefulness for the Policy Labs than for the City Labs, which probably has to do with the fact that some of this material was designed more with the Policy Labs' interests in mind.

In these two surveys, we also asked about the learning outcome from the FIT4FOOD2030 project in total related to some specific topics or areas – as assessed at the two points in time (November 2019 and September 2020). The question was: "To what degree have you improved your knowledge or skills on the following topics?"

Figure 6.11 and 6.12 below summarizes the answers for the City Labs and the Policy Labs respectively. The graphics shows the share of respondents answering, "to some degree" or "to a high degree". Other options, not represented in the graphics, were "Not at all" or "To a small degree".

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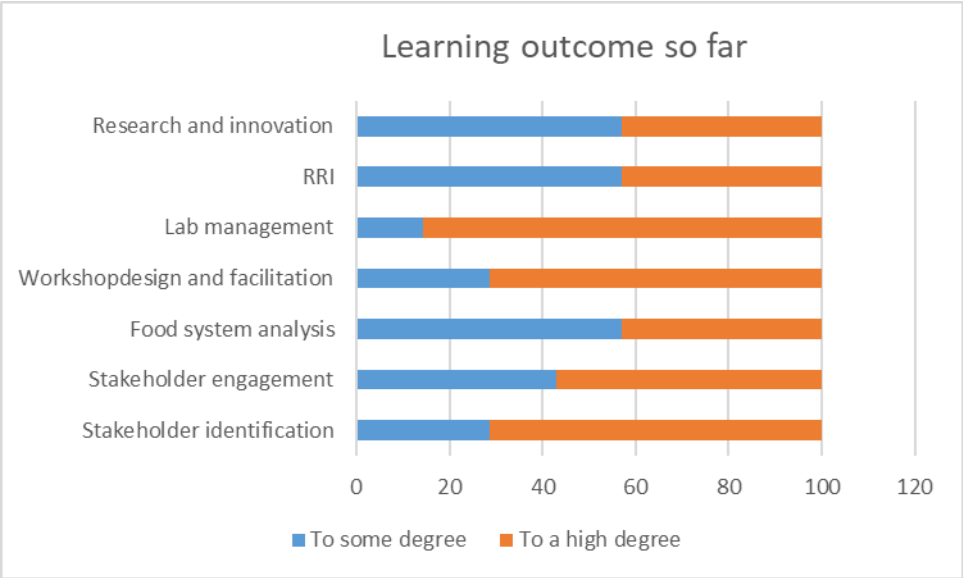

Figure 6.11: City Lab coordinators' perceived progress in knowledge and skills for different topics, November 2019

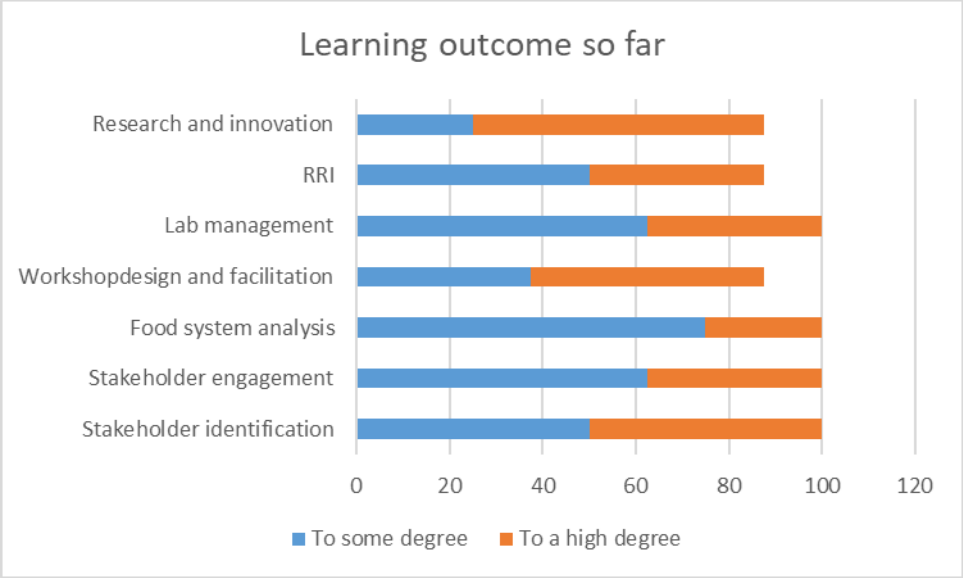

Figure 6.12: Policy Lab coordinators' perceived progress in knowledge and skills for different topics, November 2019

When we asked the same question in a survey in September 2020, we received the response as shown in Figure 6.13.

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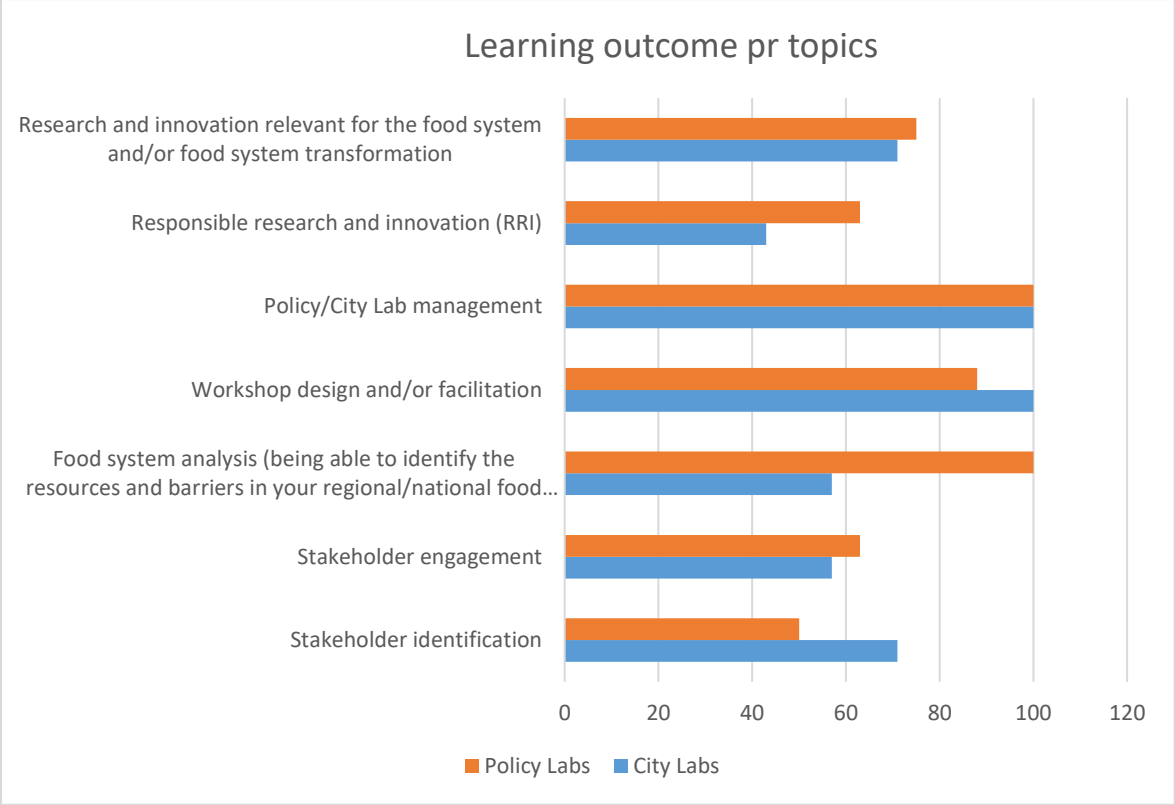

Figure 6.13: Lab coordinators' perceived progress in knowledge and skills for different topics, September 2020

The figure shows the share of respondents answering, "To a high degree" or "To a very high degree" combined. Other options, not represented in the graphics, were "Not at all", "To a small degree" and "To some degree". Lab management gets top scores for both lab types. Food system analysis comes second for the Policy Labs, while for the City Labs Workshop design and/or facilitation comes second.

Combined, the three figures above give a good overview of the learning taking place in the project. Still, it does not quite capture the deeper learning outcome. Let us return to the pragmatic learning theory from the beginning of this chapter, and the idea that learning has basically to do with developing more appropriate strategies for handling challenges and achieving goals. And let us assume that this involves not only acquiring new knowledge or isolated skills, but also being able to critically analyse one's larger context and potential status as change agent, which requires creativity, imagination and engagement. In the interviews from 2019, one of the lab coordinators gives an example of this more comprehensive form of learning outcome.

> *I think I sort of have learnt to see opportunities. By talking with people and then reflecting on it with people internally at my workplace. Strategic thinking, I guess.* (City Lab coordinator)

Here is another lab coordinator emphasizing how through the project she learned to establish more perspective plurality:

> *Thanks to the project, and talking to stakeholders, I had the ability to look at… it was one of the first times that I was looking at our activity from many different perspectives, or point of views.* (City Lab coordinator)

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The learning outcome pointed at here goes beyond the mere acquiring of knowledge and skills. It has to do with creativity, imagination, analysis and engagement, which are all deeply needed in transformation processes.

Experiment-to-experiment learning and scaling up

According to The FIT4FOOD2030 description of action (DoA), in project phase 3, different actors at different levels would start experimenting with possible roadmaps to breakthroughs. In project phase 4, finally, scaling up would take place as the four additional Policy Labs and seven additional Food Labs would be established within the project, ensuring a wider coverage of Lab activities.

Before the Covid-19 pandemic this all proceeded according to plan. Experimentation with roadmaps to breakthroughs was set on the agenda in a number of trainings and discussions from April 2019, such as the Policy Lab Training in Amsterdam, April 2019, and the training in Brussels, 15-16 October 2019, the latter of which included all the Labs. This training also served as a significant arena for learning between the first and second batches of Labs.

Experimenting and scaling up for Policy Labs

For the Policy Labs, experimenting and scaling up had primarily a focus on research policy design and funding mechanisms in alignment with the Policy Labs general function in the project. In addition to the trainings just mentioned, this issue was discussed in three digital small group meetings 21, 28 and 30 April 2020.

In these discussions, and the following activities, materials produced within the project had a significant function. Of relevance is WP2's mapping of trends in food systems and related R&I policy frameworks, WP3's identification of showcases, and WP4's explorations of roadmaps for R&I breakthroughs. The relevant publications may be found at the project's website (https://fit4food2030.eu/reports-publications/).

In accordance with the high degree of autonomy granted to the Labs, the function of these publications was *de facto* inspirational and empowering. They provided inspiration and background knowledge for the Labs' design of roadmaps for R&I breakthroughs. However, there was no formal requirement that they had to copy any of the showcases or roadmaps, or use them as blueprint models.

In part because of this high degree of autonomy, some labs were not sure how to interpret experimentation in the context of the project. A Policy Lab DLA session was dedicated to this issue in September 2019. The DLA confirmed that the concept of experiment received different interpretations among the Policy Lab coordinators. Following this, the Policy Labs were encouraged to adopt a low key interpretation of the concept. Basically, it should be understood as *trying out something new* in the policy field. Another operationalization of the concept being referred to, was that it meant *moving from talking to doing*, and *attempting to do things in a novel and better way*.

At the time of writing, the Policy Labs are in the process of developing pathways to breakthroughs and impact, having included these in holistic food systems research agendas or policy briefs. Some have also developed, or are developing, inter- and/or transdisciplinary food systems research calls based on their work.

The text box below contains some preliminary examples of pathways and outcomes:

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Box 7.1: Policy Labs - Examples of policy field outcomes

Policy Lab of Lithuania

The Policy Lab has connected with the Central-Eastern European Initiative for Knowledge-based Agriculture, Aquaculture and Forestry in the Bioeconomy (BIOEAST). This initiative could offer shared strategic research and innovation framework for working towards sustainable bioeconomies in the Central and Eastern European (CEE) countries.

Policy Lab of the Netherlands

There has been a call for proposals according to the sandpit model. The preparations for this call started outside of the policy lab, but was connected to it. The use of the innovative sandpit model matches very well with the experimentation phase of the Policy Lab. In a sandpit, a group of participants work together in a series of interactive workshops, taking place at the same location over 3-5 days. The sandpit workshop for the transition of the food system call was held on 21-24 January 2020. During the workshop a consortium was formed, and a first draft of a research proposal was prepared.

Policy Lab of Romania

The policy lab is working to launch a call with a focus on prevention of food waste. In consultation with the Ministries of Agriculture and Education, the coordinators are also looking to set up a project on education around food waste, and they explore if this could be connected to the regional Smart Specialization Strategies.

Policy Lab of Flanders

A policy vision document about the Flemish Policy Lab has been developed for Ministers of the involved departments.

(Source: Reporting from the Labs to WP5)

Experimenting and scaling up for City and Food Labs

For the City and Food Labs, the experiment-to-experiment learning is associated explicitly with the *educational modules* which were designed to be the most tangible product of the City Labs. Again, the idea of having two batches of Labs, can be understood in this perspective. The learning modules developed by the first batch of Labs should serve as an inventory in which the second batch of Labs could find modules that they could try out, either in its original form or modified and adapted to their local context. For the City and Food Labs, the joint training in Brussels in October 2019, was to a large extent dedicated to this exchange process.

A total of 18 modules was foreseen, a minimum of two per lab. At the time of writing, 17 have been completed. In addition, a variety of other scripts have been prepared that fit the module requirements but are not called as such. The result meets the expectations of Table 2.6 in the Impact section of the DoA. An overview of the educational modules is given in the text box below. A full description of the modules can be found in D6.2.

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Box 7.2: Overview of the educational modules	
City Lab Amsterdam • Applications in Food and Nutrition Security Analysis • Newspapers to stimulate critical food systems thinking • Transformative Interviewing **Athens** • EatIt! student social entrepreneurship project • Food Waste **City Lab Milan** • Valuable Market • Visions of Future Food **City Lab Tartu** • Taste Alternative Protein • Beeswax Food Wrap • Food and Vacuum	**City Lab Budapest** • System Thinking for Food System Sustainability • Developing Systems Thinking – Where does your breakfast come from? **City Lab Barcelona** • Why is it so difficult to promote healthy and sustainable diets? Exploring the complexity of the system • System change for healthy and sustainable diets **City Lab Sofia** • I <3 Food • Nutrition • Exploring features of the food system

The Labs in the second batch have picked at least one existing module to try it out in their local context. This is still ongoing and the process has been delayed due to COVID-19. Most events are now planned in September-November 2020, and instead of physical events, digital platforms will be used as a main rule.

Via bilateral calls with WP6, City and Food Labs have discussed among others: challenges that they can expect when implementing the modules, adapting the modules to new online environments (e.g. using online visual collaboration platforms like Mural) and new audiences (including those that are available to reach under the current circumstances, etc.), and feedback after implementation.

Discussion and conclusion

In summarizing the findings presented in this chapter, we want to emphasize several points:

The learning taking place in the project, as far as we have been able to monitor it, has mainly been **challenge driven and problem oriented**. This fits well with the original idea of the function that learning was supposed to have in the project that learning was essential in order to handle the unexpected challenges that a project like FIT4FOOD2030 must necessarily involve. This accounts for the high significance and value ascribed to the learning of methods and exercised at the trainings and beyond, i.e. that the trainings gave room for trying out in practice things they would do later in stakeholder meetings and other forms of workshops carried out in the context of their labs. This

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"knowledge in practice" was essential because it helped the labs carry out the activities they needed in order to realize their goals.

The challenge-driven and problem-oriented dimension of learning also accounts for the **high degree of self-initiated learning** that we have observed, when coordinators, for instance, turned to the literature in order to find the specific knowledge they need to handle a task. As is rather obvious, such individual initiatives are essential to the overall learning, as no centralized learning initiative could cover the myriad individual learning needs emerging in a project like FIT4FOOD2030.

A further point to be noticed, is the **productive interaction between more organized trainings and dialogue sessions, and the informal, spontaneous or self-initiated dialogues** taking place, where the latter may again be seen as a form of self-organized or self-regulated learning. What is essential here is the dependence of the latter relative to the first. The informal, spontaneous or self-initiated dialogues may be seen as extensions of the more formally organized dialogues, constituting a reflexive space that allows the learning outcome of the first to be further elaborated. In addition, the communities of practice represented by the informal dialogues would not have emerged if not fist established through the formal dialogues and trainings.

One should also take into account that **building a well-functioning community of practice may take time**, especially when its members don't know each other in advance, and come from different backgrounds and settings. By spending time together in dialogue, however, one does not merely profit from the insights produced in the immediate dialogue, each dialogue also builds the relations that the Community of Practice needs for its establishment.

A basic idea of the dynamic learning agenda, the way it was originally introduced, and with the theory behind the project as a whole, was that the project should **promote a higher level of system understanding**. And, this understanding should not just be theoretical or abstract; it should be this, but *also* concrete, allowing the members of local, regional and national food systems to understand their surrounding system concretely, and through this, to understand their potential as change agents within this system. Our data suggests that this aim was reached.

The formally organized DLA sessions received somewhat lower scores for learning outcome than some of the other learning arenas/activities, while the Policy Labs gave them a somewhat higher score than the City Labs. The fact that they were mostly carried out as video conferences, may explain some of this feedback. Very often, the sound and video quality were less than optimal, and this combined with some language difficulties (not all the participants were equally proficient in English), made communicating more challenging. The video conference format in itself is also challenging. Finally comes the fact that even if we attempted to focus the dialogues around challenges that seemed to be relevant for more of the participants, based on their input before the sessions, the difference between the local contexts in which these challenges had to be solved, still made a productive discussion challenging. Nevertheless, the sessions seem to have had a significant function, allowing the city and Policy Lab coordinators respectively to experience themselves as a community, and a forum for reciprocal support and empowerment, and they had this effect, even if not all the participants contributed equally actively to the discussion. Those who entered a more receptive role, reports that merely to listen to the discussion, had much of the same effect.

In the organizational learning literature, a significant distinction is drawn between first-, second- and third-order learning. While much of the explicit learning focus in the project was directed at first-order learning, such as how to organize a workshop, or how to approach a stakeholder, the data we have collected point at **a continuously ongoing second- and even third-order learning among the**

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coordinators. This has to do with the high degree of autonomy that the labs were granted in setting up their labs, and their labs visions and priorities – within the larger context of FIT4FOOD2030 and the FOOD 2030 policy framework. This autonomy forced the labs to continuously reflect on the consistence – or lack thereof – between this larger framework and their own priorities ("Are we doing the right things"), and even third-order learning ("How do we decide what is right?"). Actually, somewhat originally, the whole project started out with second- and third-order learning, along with first-order learning. It is worth emphasizing, also, that **this autonomy was generally something that the coordinators values highly in their feedback to the project**.

Based on the above reflections, we suggest the following advice for future large-scale and multi-level transformative projects:

- Look for ways to further stimulate the productive interaction between formal and informal learning dialogues, by allowing generous amounts of breaks and free time during organized trainings and other meetings and design this open time in a way that encourages informal dialogue. Organizing joint meals in the eventing, with little or no formal program, encourages this. Encourage also participants to continue their dialogue between sessions, by supplying them with contact data that makes contact easier, or by matching participants who one assumes may profit from more frequent contact and encouraging them to keep in touch.
- It might also be a good idea to supply the participants with a list of relevant literature of websites, making the searching of literature easier for those who wants to self-study in order to improve their knowledge base or skills.
- If learning dialogues are organized as video conferences, be prepared that good dialogues are harder to get, especially if the group is larger. Do what is possible to counteract this, by combining spoken with written dialogue (chat) and use breakout rooms to create more intimate dialogical spaces within the larger dialogue, to activate more participants.

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7. Reflection, analysis and concluding remarks

Large-scale transformation processes – like FIT4FOOD2030 – target complex challenges. Even if some general premises may be laid down initially in the form of a general policy, in this case the EU's FOOD 2030 policy framework, with its initial problem diagnosis and general ideas for how to proceed towards a more sustainable future, the actual transformation process cannot be managed according to some pre-designed blueprint. This is due to the systemic nature of the challenge, and **the need for context-specific solutions informed by different actors' insights**, and to **the unpredictability of the process itself**, which must proceed both exploratively, creatively, and iteratively alongside the enhanced insights of those who take part. Moreover, a multitude of institutions and actors are involved both in the problem and its possible solution. These actors have to voluntarily engage themselves in the solution of the problem, and not just through individual action from their respective vantage points, but also by forming new alliances and networks.

The theory of change informing the FIT4FOOD2030 as a large-scale transformation project, addresses this complex of challenges by focussing on a set of mechanisms and instruments for change, such as **stakeholder engagement and empowerment**, and **network building**. A central part of this empowerment involves **learning**, supplying knowledge on why change is needed and how it may be accomplished, with relevant skills. A central aspect of the network building are the **visioning** processes required in the process of forming collaborative alliances. Moreover, learning and network building comes together in the idea that learning also has to be social, represented by the idea of establishing **communities of practice** (CoPs), where members of the network can learn from each other.

In this report, we have seen how the project has proceeded on the areas defined by these instruments, namely visioning, stakeholder engagement, network building and learning. In this concluding chapter, we will start by a summary of what has been achieved at each area. Additionally, we seek to see these achievements in the context of the theory of change that identified them as relevant and important in the first place.

A potential tension in large-scale transformation projects like FIT4FOOD2030 is the **tension between the initial decision to initiate the project with its top-down dynamics, and the bottom-up dynamics needed for the project to succeed**. In FIT4FOOD2030, the top-down dynamics is derived from the fact that the EU FOOD 2030 Policy framework existed in advance, and that the project was initiated to help realize the overarching aims of this framework. Those joining the project, thus, had to accept this policy as the normative and conceptual framework of the project. At a more institutional level, the consortium that developed the DoA (description of action) of the project and succeeded in having the project funded, added to this dynamics by anchoring the project in a theory of change that served as a framework for the sort of activities and methods the project members should give priority.

The above are both valid and necessary parameters and were required in order to initiate the project in the first place. However, the theory of change embraced by the project defines as a condition of change that the main transformative dynamics should be bottom up, in the sense that the energy that carries the change should come from the autonomous motivation and engagement of the members of the food system. Building on the idea that **the problem of the European food system is**

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systemic, and that the system as such must be involved in its solution, the vision for this solution draws on the idea that each single part of this system must themselves decide to join the process. The tension just mentioned may here take at least two forms. Firstly, if the top-down dynamics becomes too strong, there is a risk that system members become too dependent on it in the form of management and funding, so that when the project ends the bottom-up dynamics is too weak to carry the process further. Secondly, tension may grow if members of the system that join the bottom-up dynamics disagree with the normative, conceptual or methodical frameworks initially established. In this chapter we will also keep an eye on any such tensions.

Visions

Inviting members of a system to examine their visions for the future, and examine the degree of alignment between their visions, may serve as an important step in the process of forming new collaborations or alliances, and lay the ground for joint action for transformation. It also reduces the risk that system members involvement rests merely on submission to external demands or reward (for instance in the form of funding), but on their autonomous motivation, as represented by their visions. Visioning, therefore, has been an important element in the FIT4FOOD2030 project.

Tracking of visioning throughout the project shows a **high degree of alignment between visioning generated within the project and the emphases of the FOOD 2030 policy framework**. The vision generated by the consortium at the outset of FIT4FOOD2030 served an important purpose in aligning and engaging consortium members at the beginning of a new, ambitious and complex process for transformative change. In line with the FIT4FOOD2030 project's theory of change, emphasis was placed particularly on RRI principles and on the importance of reflexive capacity, mutual understanding and cooperation, and barriers in the form of conflicting interests and inequities are either seen as surmountable or outside the scope of the vision.

For City Labs, visioning helped to engage and motivate stakeholders around shared objectives, and to form a basis for further analyzing competence needs and – as a response to these needs – starting to design educational modules. For Policy Labs, visioning activities coincided with systematic mapping and analyses of national food systems, including their strengths, challenges, knowledge gaps and opportunities. Coordinators consistently reported that the combination of these activities represented a solid foundation for further subsequent work, which sought to define specific R&I agendas and receptiveness to experimentation in response to the normative signals of the vision and the knowledge-basis represented by the mapping activities.

It is hard to imagine that the project could have proceeded just as effectively without this visioning, or that food system members, locally and nationally, would have entered joint action, without it. **The visioning process also emphasized the autonomy of the Labs to choose their priorities within the general framework of the EU FOOD 2030 Policy framework**, in response to the specific challenges in their particular context. Even if some Labs initially found this autonomy demanding (perhaps because the bureaucracies of their host institutions had not traditionally provided it) on a somewhat longer term it ensured that **the priorities that were chosen, reflected real challenges**. This again, increased the probability that further activities were based on a genuine motivation to address these challenges.

The visioning process and the autonomy it entailed, also served to **enhance second- and third-order learning** in the project. The process encouraged the Labs not only to analyse their local or national

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food systems, and forced them to creatively and critically assess how to respond to the challenges being identified in the process with the resources that the project made available, by addressing questions like “Are we doing the right things” (second order learning), and even the third order learning question “How do we decide what is right?”.

Stakeholder engagement and network building

Stakeholder involvement is central to FIT4FOOD2030 for a number of reasons, as explained by the project’s theory of change. Stakeholders have the significant function of representing the different levels and structures of the system that the project seeks to change. At the same time, this change cannot take place simply as the implementation of a pre-conceived master plan designed by a central authority, even if the project operates within the EU’s FOOD 2030 policy framework. **Stakeholders with specific knowledge about the different parts of the system are important to find the context-specific solutions** that are needed and possible within different parts of the system. Ideally, also, the energy driving the change should as far as possible come from the autonomous motivation and engagement of the members of the food system.

In the initial phase of the project, both the consortium partners and the institutions that hosted the labs were selected to increase the likelihood that these critical objectives would be met. Many of the consortium partners already played an active role in the European food system, and thus had a strong independent motivation to join the transformation process that the project sought to initiate. Through their networks they also had strong existing links to other parts of the food system.

In addition, in order to be approved as the host of a lab, **coordinators needed to be embedded in institutional structures that granted them a certain level of status and power in their local or national context**. For instance, the Policy Labs were typically established within the existing research policy bureaucracy of the countries or regions involved and needed the support of at least two ministries. Moreover, the City and Food Labs were to be hosted by existing institutions with an established infrastructure and a certain local or regional standing, such as a science museum/centre or a science shop. Through this selection of consortium members and lab hosts, that is, by anchoring the project in institutions and actors already involved in the system that the project sought to change, the project secured a productive starting point for establishing a bottom-up dynamics sufficiently strong to secure longer term success and impact.

This approach was also expected to create a positive condition for further stakeholder involvement and network building. This expectation has been met. **There has been is a steady increase in the number of stakeholders associated with the project over time**, with a total of 1490 registrants in the stakeholder database as of September 2020. Also, there is consistently high diversity in representation of different sectors among the various stakeholder types, meaning that all relevant parts of the food system have been engaged to some degree. The high diversity of stakeholders engaged can be attributed to City and Policy Lab coordinators’ awareness of the importance of diversity and ability to engage with a wide range of audiences. The project has also managed to engage with a **large number of so called “unusual suspects”**, that is, actors not usually included in food and nutrition research and innovation-related processes. Unusual suspects exist within each of the main stakeholder categories. These actors represent a wide range of competencies and organizational focus areas, suggesting the representation of relevant niche activities, as well as topic-relevant efforts within organizations not normally seen as associated with food and nutrition or

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associated R&I. Moreover, “unusual suspects” stand out as having a markedly higher degree of engagement with FIT4FOOD2030 than other stakeholder categories.

Some of the Lab coordinators commented that a **significant amount of time was required to engage some stakeholder groups**, and questioned the wisdom of doing that, given that time was generally a scarce resource in the project. Some stakeholders seemed to lack motivation, and often only joined for a short time before withdrawing from the activities again. When the coordinators still put effort into involving such stakeholders, it had, at least to some extent, to do with a certain top-down dynamic; actors at higher project levels continuously encouraged them to do so. At the time of writing this report, it is difficult to assess the cost-benefit ratio of this strategy. For instance, a stakeholder’s involvement may be valuable, even if the duration of the involvement is short. In any case, however, intrinsic motivation and engagement are important, and when time and resources are scarce, on may understand why some Labs chose to give higher priority to those stakeholders who were either intrinsically motivated initially or became more engaged in the process.

Learning and reflection

Learning and reflection are indispensable to FIT4FOOD2030’s theory of change. Both due to the high level of unpredictability that permeates large-scale transformation processes, and the limited previous knowledge on how to handle unexpected challenges, the actors involved have to develop the necessary knowledge along the way, through systematic learning and reflection (Beers et al., 2016). How did this work?

The learning taking place in the project, as far as we have been able to monitor it, has mainly been challenge driven and problem oriented. This fits well with the original idea that learning is essential to the project in order to handle the unexpected challenges that a project like FIT4FOOD2030 must necessarily involve. A further point to note is that productive interaction has occurred between the formal, organized trainings and dialogue sessions, and the informal, spontaneous or self-initiated dialogues taking place – the latter may be thought of as a form of self-organized or self-regulated learning. **The formally organized DLA sessions seem to have had a significant function**, allowing the City and Policy Lab coordinators respectively to experience themselves as a Community of Practice, and a forum for reciprocal support and empowerment.

While much of the explicit learning focus in the project was directed at first-order learning, such as how to organize a workshop, or how to approach a stakeholder, the data we have collected suggest a continuously ongoing second- and even third-order learning among the coordinators. This has to do with the high degree of autonomy that the labs were granted in setting up their labs, and their labs’ visions and priorities – within the larger context of the FIT4FOOD policy framework. This autonomy forced the labs to continuously reflect on the consistence – or lack thereof – between this larger framework and their own priorities (“Are we doing the tight things”), and even third-order learning (“How do we decide what is right?”).

For the longer-term continuation of the change process initiated by the project, self-organized forms of learning are essential. When designing learning arenas and learning activities in a project like FIT4FOOD2030, it may be that more emphasis should be placed on this point. This means both that the project could guide participants on issues such as where to find external resources that may be useful to their learning, such as through of reading lists or by directing participants to useful websites or events. And it means that more attention could be given to raise the awareness of what learning is, and how to do it. The assumption here, is that learning is not just about achieving

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knowledge and skills; learning is itself a skill that can be learnt, both at an individual and collective level. And by acquiring this skill, one may both learn more effectively as long as the project lasts and get more out of the organized learning activities, and become better in organizing further learning at a later stage.

Conclusion

FIT4FOOD2030 is an ambitious and comprehensive project, involving a multitude of institutions and actors, and from an arbitrary vantage point, it may at times have appeared a bit chaotic, or individual project members may have struggled to decide on the right next step forward. In the 2019 survey, thus, more than half of all the Lab coordinators agreed with the statement "The FIT4FOOD2030 project is complex and its logic is hard to understand". From time to time, some lab coordinators have also criticized the project for giving too little or weak guidance. This is probably how it must be, in a complex project like this. Also, the dominant attitude over time does not seem to be a demand for more top-down structure, but rather satisfaction with how the project was actually organized, with the high degree of autonomy granted to the Labs, and the empowerment mechanisms supporting the activities.

Based on the overall monitoring reported in this report, and the additional analysis, we conclude that **the project has done remarkably well in fulfilling its objectives so far**. An essential resource in that respect, is the **theory of change** on which the project is built, and the way it **was translated into a theory of action**, some elements of which may serve as **a model for similar projects in the future**. This point applies, for instance, to the way the project was originally set up around institutions (consortium members and the institutions hosting the labs) which already had a central position in the food system. Rather than trying to influence the system from the outside, **the project from the beginning operated inside the system that it sought to change**. Other project features that may deserve to be seen as models, include **the ways that the project has encouraged and empowered its participants to seek new ways forward** that take into account the specific challenges of their local or national contexts. Finally, the high priority granted to learning in the project, serving as a mechanism both for empowerment and for finding context specific solutions to context specific challenges, may serve as something future projects might copy. A special emphasis may here be given to the learning between Labs in general, and between the first and second batches of Labs more specially.

Naturally, the FIT4FOOD2030 project has also produced more tangible results in the form of new educational modules and research policy documents (cf. box 7.1 and 7.2 above). However, if we take the Food system perspective of the project seriously, and the insight that the transition towards greater sustainability needs to be systemic, the greatest achievement of the project is how it has already changed this system from within, by **building and strengthening networks, raising awareness, empowering new groups of stakeholders, and establishing a new culture of collaboration**. Of course, from a policy perspective, these may all be described as "soft" outcomes, representing soft governance mechanisms, and it may well be that they alone cannot produce the necessary change, or do so at the speed needed. Other mechanism, for instance in the form of new legislation or regulations may also be required. However, history has proven that such top-down government can, at best, only be part of the solution, and that they are of little help if not supplemented with more fundamental systemic change from below. In order to engender lasting and high-quality results, change needs to be driven by the energy derived from the well-informed

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engagement of a multitude of different actors joining forces in joint action. Herein lies the essential mission – and outcome – of the FIT4FOOD2030 project.

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8. References

Anderson, R., Baxter, L. A., & Cissna, K. N. (2003). Texts and contexts of dialogue. In R. Anderson, L. A. Baxter, & K. N. Cissna (Eds.), *Dialogue: Theorizing difference in communication studies* (pp. 1-18). Thousand Oaks, CA: SAGE publications.

Argyris, C. (1978). *Organizational learning: a theory of action perspective*. Reading, Mass.: Addison-Wesley.

Bateson, G. (1972). *Steps to an ecology of mind: Collected essays in anthropology, psychiatry, evolution, and epistemology*: University of Chicago Press.

Beers, P. J., Van Mierlo, B., & Hoes, A.-C. (2016). Toward an integrative perspective on social learning in system innovation initiatives. *Ecology and Society, 21*(1).

Brown, V. A., Harris, J. A., & Russell, J. Y. (2010). *Tackling wicked problems through the transdisciplinary imagination*: Earthscan.

Bäckstrand, K. (2006). Multi-stakeholder partnerships for sustainable development: rethinking legitimacy, accountability and effectiveness. *European environment, 16*(5), 290-306.

Cash, D. W., Adger, W. N., Berkes, F., Garden, P., Lebel, L., Olsson, P., . . . Young, O. (2006). Scale and Cross-Scale Dynamics: Governance and Information in a Multilevel World. *Ecology and Society, 11*(2), 8. doi:10.5751/es-01759-110208

de Wildt-Liesveld, R., Bunders, J. F. G., & Regeer, B. J. (2015). Governance strategies to enhance the adaptive capacity of niche experiments. *Environmental innovation and societal transitions, 16*(sept), 154-172. doi:10.1016/j.eist.2015.04.001

El Bilali, H. (2019). The Multi-Level Perspective in Research on Sustainability Transitions in Agriculture and Food Systems: A Systematic Review. *Agriculture, 9*(4), 74. doi:10.3390/agriculture9040074

Elkjaer, B. (2018). Pragmatism: Learning as creative imagination. In (2 ed., pp. 66-82): Routledge.

Elsdon-Baker, F. (2013). Future Directions and Discipline Formation for 'Dialogue Studies': Reflections on Critically Analyzing 'Dialogue' in Theory and Practice. *Journal of dialogue studies, 1*(1), 29-49.

European Union. (2010). *Europe 2020 Flagship Initiative Innovation Union* (546, SEC (2010) 1161). Retrieved from Brussels: https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-brochure_en.pdf

Faysse, N. (2006). *Troubles on the way: An analysis of the challenges faced by multi-stakeholder platforms.* Paper presented at the Natural Resources Forum.

Fazey, I., Schäpke, N., Caniglia, G., Patterson, J., Hultman, J., van Mierlo, B., . . . Wyborn, C. (2018). Ten essentials for action-oriented and second order energy transitions, transformations and climate change research. *Energy Research & Social Science, 40*, 54-70. doi:10.1016/j.erss.2017.11.026

Freeman, C., & Perez, C. (1988). Structural Crises of Adjustment: Business Cycles and Investment Behaviour. In G. Dosi, R. Nelson, C. Freeman, L. Soete, & G. Silverberg (Eds.), *Technical Change and Economic Theory* (pp. 38-66). London: Francis Pinter.

Funnell, S. C., & Rogers, P. J. (2011a). *Purposeful program theory : effective use of theories of change and logic models*. In Research Methods for the Social Sciences, Vol. v.31.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No774088

Funnell, S. C., & Rogers, P. J. (2011b). *Purposeful program theory: effective use of theories of change and logic models* (1st ed ed.). San Francisco, CA: Jossey-Bass.
Gaziulusoy, A. İ., & Ryan, C. (2017). Shifting conversations for sustainability transitions using participatory design visioning. *The Design Journal, 20*(sup1), S1916-S1926.
Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental Innovation and Societal Transitions, 1*(1), 24-40. doi:10.1016/j.eist.2011.02.002
Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy, 36*(3), 399-417. doi:10.1016/j.respol.2007.01.003
Head, B. W. (2018). Forty years of wicked problems literature: forging closer links to policy studies. *Policy & society, 38*(2), 180-197. doi:10.1080/14494035.2018.1488797
IPCC. (2001). *Climate Change 2001: Mitigation: Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change*: Cambridge University Press.
Kemp, R., Loorbach, D., & Rotmans, J. (2009). Transition management as a model for managing processes of co-evolution towards sustainable development. *International journal of sustainable development and world ecology, 14*(1), 78-91. doi:10.1080/13504500709469709
Kern, F., & Howlett, M. (2009). Implementing transition management as policy reforms: a case study of the Dutch energy sector. *Policy Sciences, 42*(4), 391-408. doi:10.1007/s11077-009-9099-x
Kok, K. P. W., den Boer, A. C. L., Cesuroglu, T., van der Meij, M. G., de Wildt-Liesveld, R., Regeer, B. J., & Broerse, J. E. W. (2019). Transforming Research and Innovation for Sustainable Food Systems—A Coupled-Systems Perspective. *Sustainability, 11*(24), 7176. doi:10.3390/su11247176
Kuhlmann, S., & Rip, A. (2014). *The challenge of addressing Grand Challenges A think piece on how innovation can be driven towards the "Grand Challenges" as defined under the prospective European Union Framework Programme Horizon 2020*. Retrieved from https://ec.europa.eu/research/innovation-union/pdf/expert-groups/The_challenge_of_addressing_Grand_Challenges.pdf
Kuhlmann, S., Stegmaier, P., & Konrad, K. (2019). The tentative governance of emerging science and technology—A conceptual introduction. *Research policy, 48*(5), 1091-1097. doi:10.1016/j.respol.2019.01.006
Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. *Annual review of environment and resources, 42*(1), 599-626. doi:10.1146/annurev-environ-102014-021340
Meadows, D. (1999). *Leverage Points: Places to Intervene in a System*. Hartland, VT: The Sustainability Institute.
Murray-García, J. L., Harrell, S., García, J. A., Gizzi, E., & Simms-Mackey, P. (2014). Dialogue as skill: Training a health professions workforce that can talk about race and racism. *American Journal of Orthopsychiatry, 84*(5), 590-596. doi:10.1037/ort0000026
Owen, R. (2014). The UK Engineering and Physical Sciences Research Council's commitment to a framework for responsible innovation. *Journal of responsible innovation, 1*(1), 113-117. doi:10.1080/23299460.2014.882065
Poppe, K. (2018). *Recipe for change: An agenda for a climate-smart and sustainable food system for a healthy Europe: Report of the FOOD 2030 Expert Group* (9279803565). Retrieved from
Reber, B. (2018). RRI as the inheritor of deliberative democracy and the precautionary principle. *Journal of Responsible Innovation, 5*(1), 38-64.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No774088

Rip, A., & Kemp, R. (1998). Technological change. In S. Rayner & E. L. Malone (Eds.), *Human choice and climate change Vol. 2*. Columbus, OH: Battelle Press.
Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. Policy sciences, 4(2), 155-169.
Rotmans, J., Kemp, R., & van Asselt, M. (2001). More evolution than revolution: transition management in public policy. *Foresight (Cambridge), 3*(1), 15-31. doi:10.1108/14636680110803003
Schut, M., Klerkx, L., Sartas, M., Lamers, D., Mc Campbell, M., Ogbonna, I., . . . Leeuwis, C. (2016). Innovation platforms: experiences with their institutional embedding in agricultural research for development. *Experimental Agriculture, 52*(4), 537-561.
Sheppard, S. R., Shaw, A., Flanders, D., Burch, S., Wiek, A., Carmichael, J., . . . Cohen, S. (2011). Future visioning of local climate change: a framework for community engagement and planning with scenarios and visualisation. *Futures, 43*(4), 400-412.
Shields, P. M. (2003). The Community of Inquiry:Classical Pragmatism and Public Administration. *Administration & Society, 35*(5), 510-538. doi:10.1177/0095399703256160
Steward, F. (2012). Transformative innovation policy to meet the challenge of climate change: sociotechnical networks aligned with consumption and end-use as new transition arenas for a low-carbon society or green economy. *Technology Analysis & Strategic Management, 24*(4), 331-343. doi:10.1080/09537325.2012.663959
Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a framework for responsible innovation. *Research policy, 42*(9), 1568-1580.
Timotijevic, L., Khan, S. S., Raats, M., & Braun, S. (2019). Research priority setting in food and health domain: European stakeholder beliefs about legitimacy criteria and processes. *Food Policy, 83*, 116-124.
Trutnevyte, E., Stauffacher, M., & Scholz, R. W. (2012). Linking stakeholder visions with resource allocation scenarios and multi-criteria assessment. *European Journal of Operational Research, 219*(3), 762-772.
Van Mierlo, B., Regeer, B., van Amstel, M., Arkesteijn, M., Beekman, V., Bunders, J., . . . Leeuwis, C. (2010). *Reflexive monitoring in action. A guide for monitoring system innovation projects* (9085855993). Retrieved from Oisterwijk, The Netherlands:
van Veen, S. C., de Wildt-Liesveld, R., Bunders, J. F., & Regeer, B. J. (2014). Supporting reflective practices in social change processes with the dynamic learning agenda: an example of learning about the process towards disability inclusive development. *International journal of learning and change, 7*(3/4), 211-233.
Warner, J. F. (2006). More sustainable participation? Multi-stakeholder platforms for integrated catchment management. *Water resources development, 22*(1), 15-35.
Weiss, C. H. (1995). Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families. *New approaches to evaluating community initiatives: Concepts, methods, and contexts, 1*, 65-92.
Wenger, E. (2000). Communities of Practice and Social Learning Systems. *Organization, 7*(2), 225-246. doi:10.1177/135050840072002
Williams, A., Kennedy, S., Philipp, F., & Whiteman, G. (2017). Systems thinking: A review of sustainability management research. *Journal of cleaner production, 148*, 866-881. doi:10.1016/j.jclepro.2017.02.002
Wortel, E., & Verweij, D. (2008). Inquiry, Criticism and Reasonableness: Socratic Dialogue as a Research Method? *Practical philosophy, 9*(2).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No774088

Zimmermann, A., & Morgan, W. (2016). A Time for Silence? Its Possibilities for Dialogue and for Reflective Learning. *An International Journal, 35*(4), 399-413. doi:10.1007/s11217-015-9485-0

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9. Appendices

Appendix 1: Data sources and data collection

The main data sources for this report are:

The 2019 Survey

This survey was distributed to all lab coordinators in November 2019, more specifically, those managing the first batch of labs which had been active since the start of the project. All seven City Labs and all seven Policy Labs responded. In one Policy Lab, two of the coordinators responded, which gives a total of N=15. (City Labs N=7, Policy Labs N=8)

2019 Lab Coordinator Interviews

Following the 2019 survey, individual interviews were made with all the Lab coordinators. The interviewers were from OsloMet and VU. The interviews took place in Zoom (video conference), and each interview lasted ca. an hour. The interview data was analysed using NVivo.

The 2020 Survey

This survey was distributed to all lab coordinators in September 2020, i.e., both to the first and second batch of labs. This means the survey was distributed to the seven original City Labs and the seven new Food Labs, as well as to the seven original Policy Labs, and the four new ones. In total this gives 25 potential respondents. Response was received from six of the original City Labs and one of the new Food labs, while among the Policy Labs, all the original seven labs responded and none of the new. In one Policy Lab, two of the coordinators responded, which gives a total of N=15 (City/Food Labs N=7, Policy Labs N=8). The questionnaire is attached below.

DLA data collection

The DLA sessions were covered by two forms of data collection.

- Brief summaries of each session were made by one of the facilitators of the session immediately after each session.

A short survey was distributed to the participants immediately after each session. Here, the participants were asked to assess their overall satisfaction with the session, its relevance to their individual challenges, etc.

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Appendix 2: Key features of City Lab visioning workshops

Table X: Key features of City Lab visioning workshops

City Lab Amsterdam June 2018 **VISION CHARACTERISTICS:** **Mostly agreement (8):** Healthy and sustainable choices made easy, Producer equality, Circularity, No more supermarkets, Empowered consumers, Packaging, Enjoyment, Policy use **Mostly disagreement (2):** Local, Production, Technology use **PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:** • **Connect research and food practice world** • Be **source of inspiration** for **food enjoyment** as well as tackling the big issues • Success would be if more food initiatives are **aware and engaged** in the opportunities that **these modules** offer
City Lab Athens June 12 2018 **VISION CHARACTERISTICS:** **Mostly agreement (11):** Science, Use of state-of the art technologies for e.g. agriculture, Research contributions, Short supply chains/Local markets and gardens, Connections/Links (produces/consumer, nature, etc.), Education – New skills required, Behavioural change (consumer participation), Human experience and values important, Healthy food/all stages; less is more (less fat, sugar, meat), Food sharing, Food recycling/no packaging/waste, Sustainability - Resilience **Mostly disagreement (1):** Science (high-tech, large-scale) vs small scale **PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:** • **Coordinators:** Connect Athens CL with participants' countries • **Coordinators:** Goal of online community on OSOS portal • **Participants:** Form information-sharing community
City Lab Athens June 25 2018 **VISION CHARACTERISTICS:** **Mostly agreement (7):** Short supply chains/Local markets and gardens, Behavioural change: Participation, Values, Education, Healthy food & patterns, Sustainability - Resilience, Jobs

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Mostly disagreement: None

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- **Coordinators:** Form **online community** for networking and information-sharing, and share School Gardens materials with **European teachers**
- **Participants:** Form **information-sharing community** and network with other interested teachers

City Lab Sofia June/July 2018

VISION CHARACTERISTICS:

Mostly agreement (12): Healthy citizens, Better food literacy, Science helping the food system, Safe food, Quality food, Less food waste, Sustainable food system, Innovative food system, Enough food supply, New type of consumers, New type of producers, Improved logistics

Mostly disagreement: None

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- **Raise awareness and food literacy**
- Success would be **for students and citizens to become careful consumers** based on better and engaging FNS (Food and Nutrition Security) knowledge
- Some participants hope and desire to **re-establish business-research connections**

City Lab Tartu June 14 2018

VISION CHARACTERISTICS:

Mostly agreement (12): Resource management, Healthy, Aware citizens, Interpersonal dialogue, Innovative, Science-based, Locally produced, Protecting the richness of nature, Rational consumption, Lower selection, Lower price, Tasty

Mostly disagreement: None

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- **Disseminate good practices** for healthy and (environmentally) sustainable diets based on coproduced CL workshops
- Closer **cooperation between local food cycle actors**

City Lab Budapest July 5 2018

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VISION CHARACTERISTICS:

Mostly agreement (12): Raising awareness & Conscious Marketing and Education and Communication, Seasonality and taste, Conscious reduction and management of food waste, Safe and Fresh and Healthy Foods, Locally produced and consumed products; Hungarian product, Availability (price and location), Solidarity, Innovation, Transparency, Adaptability, Freedom, Objectivity

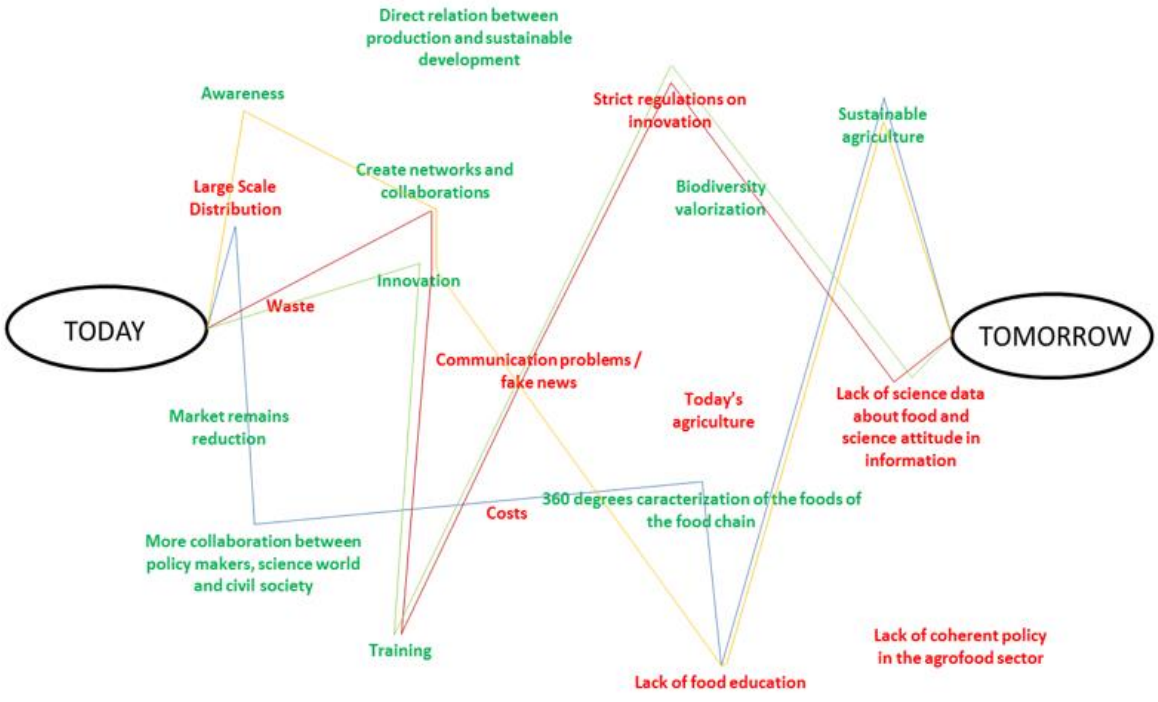
Mostly disagreement (2): Clean and organic products, Community

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- **Awareness-raising, education, communication**
- **Healthy diets, food waste** possible focus areas
- CL has important role in allowing the **co-existence of views** on regarding food system sustainability

City Lab Milan July 19 2018

Impact &
barrier mapping:



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PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- Create **harmony** between project objectives from a European perspective, and local stakeholders
- Use **educational activities to foster system transformation**
- Support networking between diverse actors
- **Share existing good local practices**

City Lab Barcelona (Fit4Food Catalonia)
4 workshops, Sep 2018

VISION CHARACTERISTICS:

General agreement on "Preliminary R&I agenda on healthy and sustainable diets", well-aligned with FOOD2030, with interrelated *missions*, *visions,* and *R&I priorities, grouped as follows:*

A) Missions for Healthy and Sustainable Diets

B) Transversal mission related with the improvement of governance processes

C) Other Sustainability missions

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- Multi-actor network for transformation of the R&I system for more healthy and sustainable diets.
- **Inform the EC / Catalan R&I Agenda**
- Liaise with funders, research, industry on **co-defined R&I priorities** from Lab

City Lab Athens Oct 17 2018

VISION CHARACTERISTICS:

Mostly agreement (5): Healthy nutrition and habits, Behavioural modification through education, Holistic approach to the food chain, Behavioural modification both through bottom-up approach and responsible policy making, Cooperation

Mostly disagreement: None

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- **Coordinators:** Schools as FNS (Food and Nutrition Security) innovation hubs, with student involvement in design, implementation and presentation of hands-on innovative activities that influence society
- **Participants:** Mix of approaches needed, education informing behaviours and policy

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City Lab Amsterdam January 2019

VISION CHARACTERISTICS:

Mostly agreement (13): Cooperatives/new ways of collaboration, Locally produced, Connection producer – consumer, Data and transparency, True pricing, Logistics, Rest streams, Awareness and education, Protein transition, Equity and social sustainability, Time, Convenience, Packaging

Mostly disagreement: None

PATHWAYS TO IMPACT/CRITERIA FOR SUCCESS:

- Contributing to a **'robust'** process
- The City Lab could bring in **methodologies for the development of pathways**
- Increase **diversity of stakeholders**
- Guide the network in maintaining a **systems perspective**

City Lab Milan Feb 2019

Visioning emphases

- Teacher perspectives
- teachers should have the chance to **give value to the act of eating**, and to the **complexity** that lies behind food consumption
- It is important to deal with the food system aspects with a **learning by doing approach**, in order to involve the students to the production and environmental aspects of food **not adopting a too theoretic perspective**

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Appendix 3: Key features of visioning in Policy Labs

Policy Lab Lithuania **Form and content:** At its first national meeting in November 2018, 16 stakeholders (primarily researchers and policy makers, with some NGOs and industry representatives), discussed obstacles and solutions needed for develop a national network through the Policy Lab. Lithuania's agricultural raw material recycling, and reliable food safety and quality control systems were seen as key strengths, while lack of cross-sector strategies for sustainability and food, as well as limitations around awareness, education, and data on food consumptions, were seen as national weaknesses and challenges. A preliminary Policy Lab vision was formulated on the basis of this assessment: *The citizens are provided with fully-fledged and nutritious food that is produced from sustainably grown products enriched with most valuable active biological materials derived from by - products or from products that are no longer suitable for direct use as food.* **Significance of the vision:** The preliminary vision was used as the basis for further work during a second (June 4, 2019, 10 participants) and third (February 2020, 12 participants) national meetings, which targeted consumer representatives in addition to the stakeholders already included at the first event. Through group work, participants at the second and third national meetings identified R&I challenges and innovations needed to realize the above vision. • **R&I challenges:** Food safety, Personalized nutrition, national environment protection and the low production efficiency due to low automation and little use of big data. The main R&I challenge that was agreed upon by the participants concerned the diversity of raw products and sustainable ways of getting final nutritious food products. • **Innovations:** Interdisciplinary innovation activities within the food system, digitalization within the food system and digitalization of the connection between the food system and other relevant systems.
Policy Lab Hungary **Form and content:** At a 1st (September 9 2018) and 2nd (March 19 2019) national meetings, a vision for the Hungarian food system was developed based on systematic reflection around key strength,

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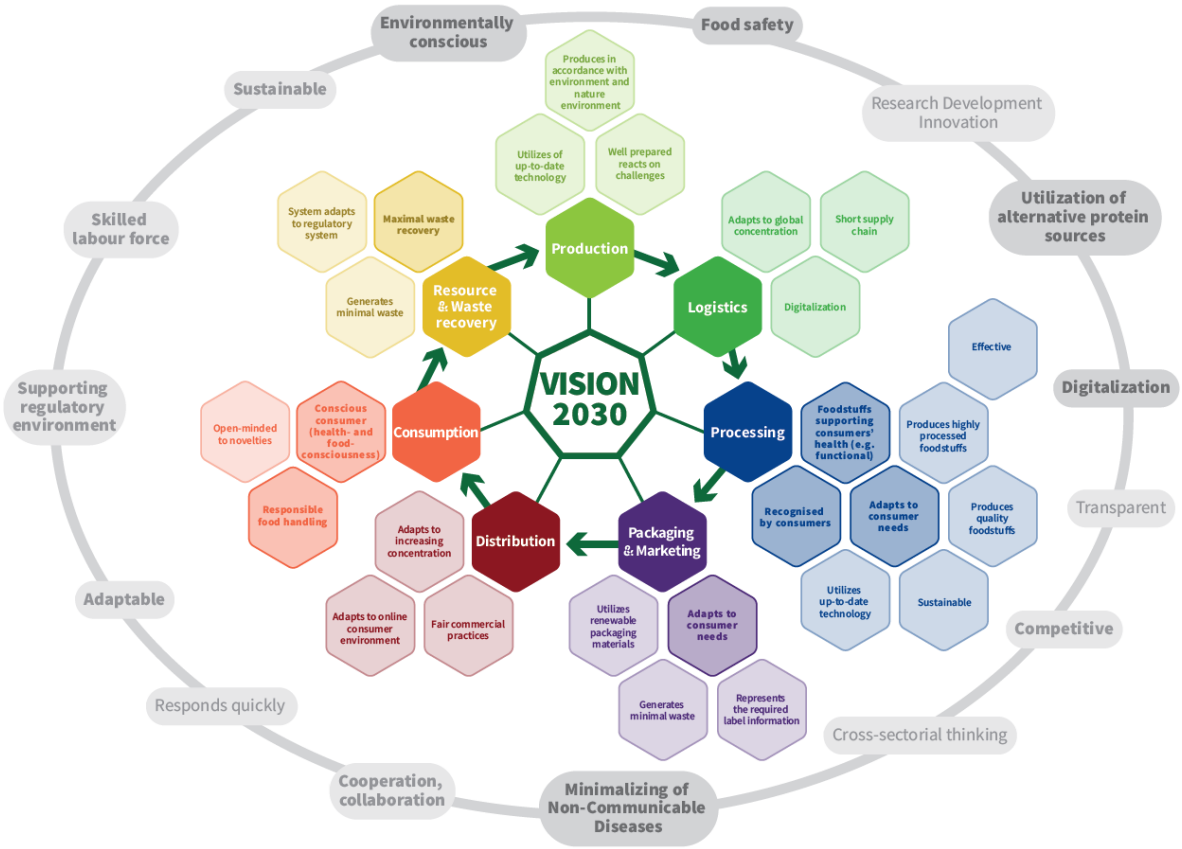
weaknesses and challenges of the system, together with a total of 28 stakeholders from NGOs, business, policy making, and knowledge centers.

The vision is expressed as an infographic, with hexagons grouped by color according to what areas of the food system they contribute to, and encircling grey elements representing features of the system as a whole that support a holistic approach.



A second infographic further develops upon the vision by mapping out R&I factors that hinder and support the envisioned Hungarian food system. In this infographic, dark green hexagons represent key stakeholder groups, while surrounding hexagons show factors that support the vision (green), hinder the vision (red) and factors that can both support and hinder the vision (blue).

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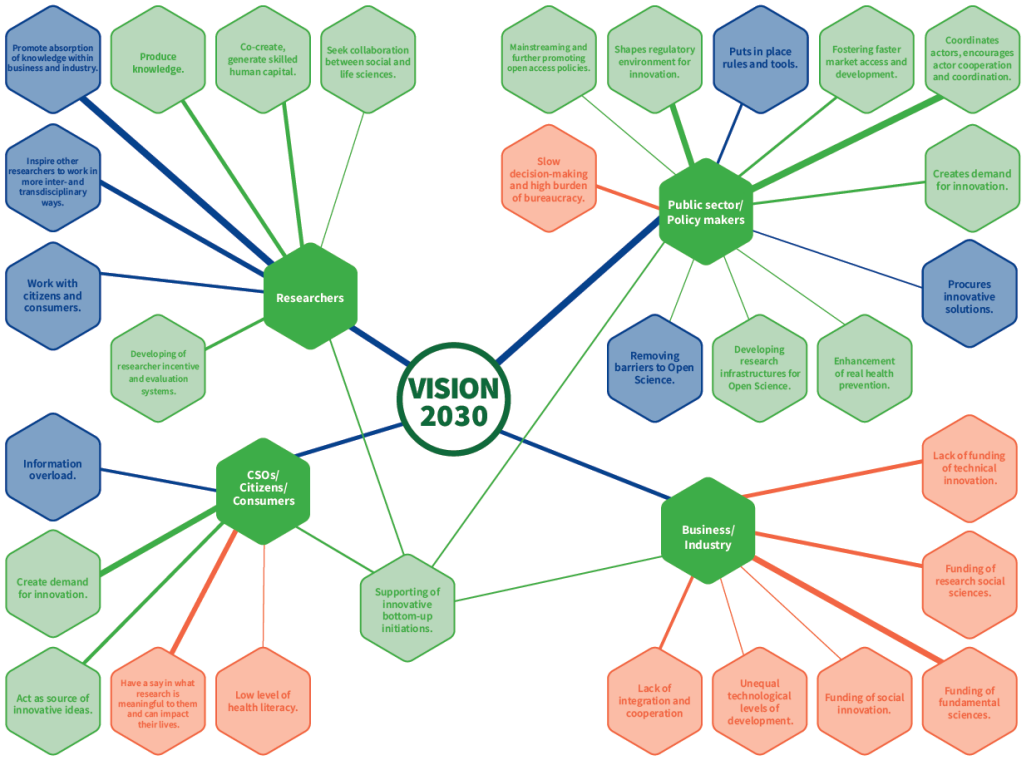

Significance of the vision: The vision was used as the basis for several communication and research publication efforts. It was also used as a basis for developing pathways towards Hungarian food supply systems during a 3rd national meeting on November 6 2019, where 20 stakeholders participated. Recommendations from that meeting included:

- Decision-makers should base the development of their regulatory instruments on extensive professional consultation.
- Authorities' controlling role should be strengthened, and to enforce regulations, they must actively control and give feedback on their implementation and feasibility.
- Professional and inter-professional organizations as well as chambers representing the interests of chain actors should be given more emphasis in advocacy and the development of professional statements.

Policy Lab Romania

Form and content: During its 1st (23 October 2018) and 2nd (21 May 2019) national meetings, the Romanian Policy Lab involved 41 and 70 stakeholders respectively – including business, funding organizations, scientists and policy makers, and NGOs – to analyze strengths, challenges, and trends influencing the Romanian food system. Discussion revolved around the four FOOD2030 priorities of nutrition, climate, circularity and innovation.

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Regarding food waste food waste reduction from 50-75% in 2030 was envisioned. Furthermore fast recyclable/biodegradable food packaging was envisioned for 2030. Regarding food safety, the participants found the following subjects important:Include social, environmental and nutritional aspects in the approach. Eating behavior. Local small producers must be stimulated and encouraged for producing fruit and vegetables and for distributing them through short chains. R&I must be reinforced.

Significance of the vision: The vision informed subsequent discussions at the 3rd (October 2019) and 4th (February 27 2020) national meetings, where participants identified actions to prevent food waste and ideas for re-use of food waste at several levels:

- **Consumer level:** development and use of a range of methods to understand the behavior of consumers and their education for food donation
- **Level of the manufacturers:** encouraging the integration of food waste prevention along the entire business / supply chain (from purchasing raw materials to marketing, logistics)
- **General level:** (1) promoting the value of food and changing social norms, so that food waste is no longer socially acceptable. (2) Strengthening the capacity for innovation, promoting circularity and new market opportunities and ensuring support for stakeholders to take measures for their operations.

Further experimentation envisioned by the Romanian Policy Lab based on the above vision and subsequent recommendations, include a call with focus on prevention of food waste, a project on education around food waste, and bringing together four ministries for talks about a food policy.

Policy Lab Flanders

Form and content: The Flemish Policy Lab's 1st national meeting (November 5, 2018) gathered 60 participants from business, policy, research and a funding organization, and included break-out sessions about R&I investments for healthy food and behavioral change. The meeting resulted in a food system mapping including strengths, weaknesses, challenges and knowledge gaps, which were further elaborated upon in a series of subsequent small meetings with key stakeholders in May and July 2019, which together constituted the Policy Lab's 2nd national meeting. A policy vision document about the Flemish Policy Lab was developed and shared with key policy stakeholders.

Significance of the vision: A 3rd national meeting was held on February 4th 2020, where work from previous meetings informed further development and prioritization around a number of 'missions':

- The principles of a circular economy come back throughout the food landscape
- We are striving for a climate neutral food system
- A climate robust agro-food system that provides food security is prime

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- The food chain is a front runner in digitization, transparency and traceability
- Innovative business models generate large economic potential for the whole agro-food sector
- We are taking nutrition research to the next level

Policy Lab Norway

Form and content: A 1st national meeting (9 November 2018) gathered 27 participants to discuss the national food system and identify thematic areas in need of attention through R&I:

1. education and the upcoming generation

2. responsibility and collaboration in the whole value chain, adapting a circular perspective

3. coordinated and comprehensive policies

4. the overall power and influence of consumers

Subsequently, a 2nd national meeting was convened (22 March 2019) where a total of 33 participants joined in a visioning activity with the following outcome:

Youths eating healthy and sustainable. No food waste. Diffused knowledge about individual solutions. Norway as showcase, for global/local solutions and collaboration in the value chain, and for politicians winning elections on food policy ambitions.

Significance of the vision: Following the 2nd national meeting, a series of events and meetings with the EAT foundation and other actors in the Norwegian food system were held, constituting the experimentation phase of the Norwegian Policy Lab. While the vision that was generated informed these meetings, the focus of the Norwegian Policy Lab also shifted towards a focus on the Norwegian diet of the future.

Policy Lab Ireland

Form and content: Policy Lab Ireland's 1st national meeting (September 2019) consisted of stakeholder consultation with 25 actors to develop a new vision to inform the direction of the Government's investment in agri-food innovation over the course of the next ten years, based on a vision for Ireland to be a global leader of innovation for sustainable Food & Agriculture Systems through:

1. *Developing an output based and mission-orientated Agri-Food Innovation Strategy;*

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***2**. Appointing a single point of oversight with responsibility for driving the Agri-Food Innovation Strategy and ensuring a cohesive and collaborative approach; and*

***3.** Driving greater collaboration across the Agri-Food Sector*

Significance of the vision:

The Department of Agriculture, Food & Marine proposes several actions for national policy:

1. Implement a National Agri-Food Research, Innovation & Investment Policy Framework Approach

2. Identify key challenges to provide direction for public investment in innovation

3. Promote collaboration amongst all stakeholders including to create, design, demonstrate, test and learn about new ideas in real world settings

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Appendix 4: Stakeholder templates for individuals and events, September 2019

Stakeholder list		Organization	Engagement	Gender
Number	**List each individual stakeholder here.** (If you do not wish to disclose the names of your stakeholders, you may omit that information in the file you submit on Edugroepen. If so, please enter a desriptive label for each individual instead).	**Organizational affiliation(s)** (list up to three)	**Degree of stakeholder engagement with FIT4FOOD activities** (Click to select one)	**Gender** (Click to select one)
1				
2				
3				

Research, education and knowledge institutions		Policy makers				Funding agencies			
Relevant sector(s) (Click to select up to eight)	**Explanation** (if "other")	**Level** (Click to select up to six)	**Explanation** (if "other")	**Relevant sector(s)** (Click to select up to eight)	**Explanation** (if "other")	**Ownership** (Click to select one)	**Explanation** (if "other")	**Relevant sector(s)** (Click to select up to eight)	**Explanation** (if "other")

Businesses			NGOs/CSOs				Other (if relevant)	
Area(s) (Click to select up to six)	**Explanation** (if "other")	**Size** (Click to select one)	**Type** (Click to select up to three)	**Explanation** (if "other")	**Relevant sector(s)** (Click to select up to eight)	**Explanation** (if "other")	**Role(s)** (Click to select up to four)	**Explanation** (if "other")

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FIT4FOOD2030 event participation. Please complete this form to report which categories of stakeholders were engaged through an individual event. Only use this form for events with direct engagement, where two-way communication occured. This can include City, Food and Policy Lab meetings, or other FIT4FOOD2030-related events such as workshops or dialogue meetings. For events characterized by one-way communication, such as presentations, please report using the google spreadsheet available at: https://docs.google.com/spreadsheets/d/1d2kOnEtrS67jD7etZbWuq8R_IWO4MhLS8pQVl0Vj-KM/edit#gid=0

City, Food and Policy Lab coordinators should return this form to WP6 and WP5 respectively. All others should return it to Mads Gjefsen (WP8, OsloMet) at mdgj@oslomet.no

Event information	Event title	
	Event location	
	Event date	
	Total audience number	

Of the "total audience number" above, how many participants fit each of the below categories? (Any single individual may be listed in several categories)

Gender	Male	
	Female	
	Other	

Citizens and consumers	Total number of citizens and consumers	

School children and students	**Level**	School children (ages 4-12)	
		School children (ages 12-18)	
		Higher education	
		Other (explain below)	
		Explanation or comments	

Representatives from Research, education and knowledge institutions	**Relevant sector(s)**	Agriculture	
		Aquaculture and fisheries	
		Food (prod. and distr.)	
		Health (incl. nutrition)	
		Environment	
		Research and innovation	
		Education	
		Other (explain below)	
		Explanation or comments	

			Relevant sector(s)							
			Agriculture	Aquaculture and fisheries	Food (prod. and distr.)	Health (incl. nutrition)	Environment	Research and innovation	Education	Other (explain below)
Policy makers	**Level**	Local and city level								
		Regional level								
		National level								
		European level								
		International level								
		Other (explain below)								
		Explanation or comments								

			Relevant sector(s)							
			Agriculture	Aquaculture and fisheries	Food (prod. and distr.)	Health (incl. nutrition)	Environment	Research and innovation	Education	Other (explain below)
Funding agencies	**Ownership**	Public								
		Private								
		Other (explain below)								
		Explanation or comments								

			Size	
			Small or medium-sized enterprise	Large enterprise
Businesses	**Area(s)**	Farms		
		Fisheries		
		Processing		
		Distribution, retail, marketing		
		Hospitality and food services (Hotels, restaurants, caterers)		
		Other (explain below)		
		Explanation or comments		

			Relevant sector(s)							
			Agriculture	Aquaculture and fisheries	Food (prod. and distr.)	Health (incl. nutrition)	Environment	Research and innovation	Education	Other (explain below)
NGOs/CSOs	**Type**	Non-industry advocacy groups								
		Citizen/consumer organization								
		Other (explain below)								
		Explanation or comments								

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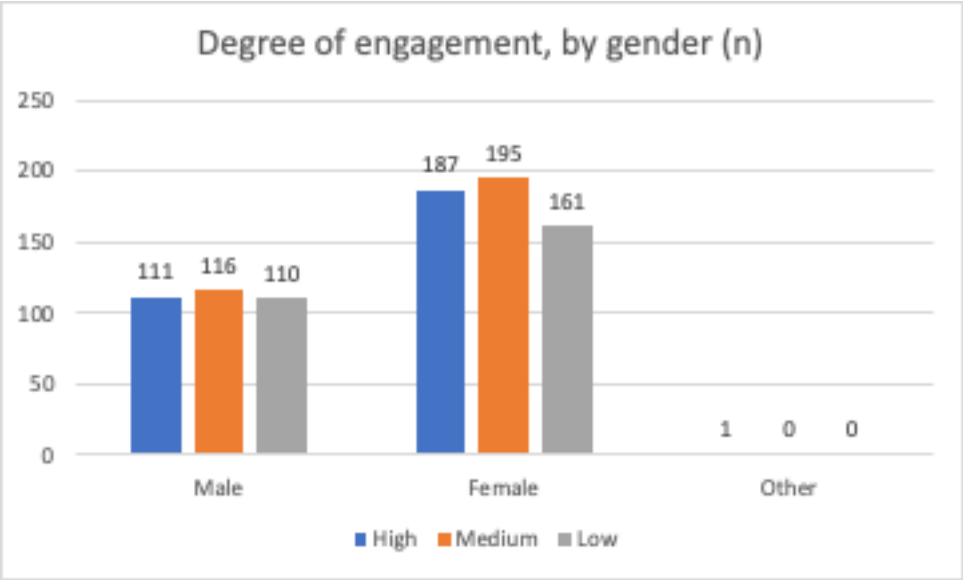
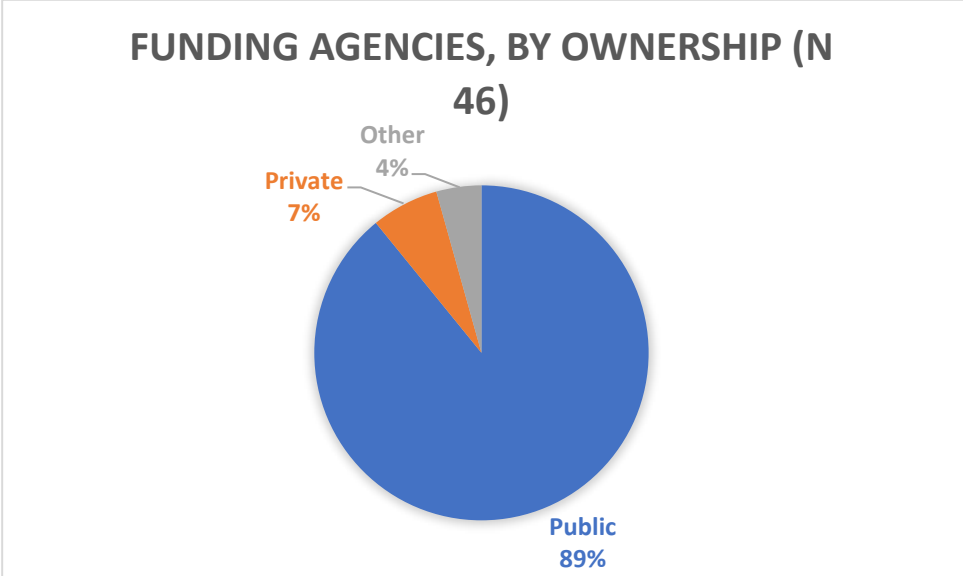
Appendix 5: Additional stakeholder monitoring





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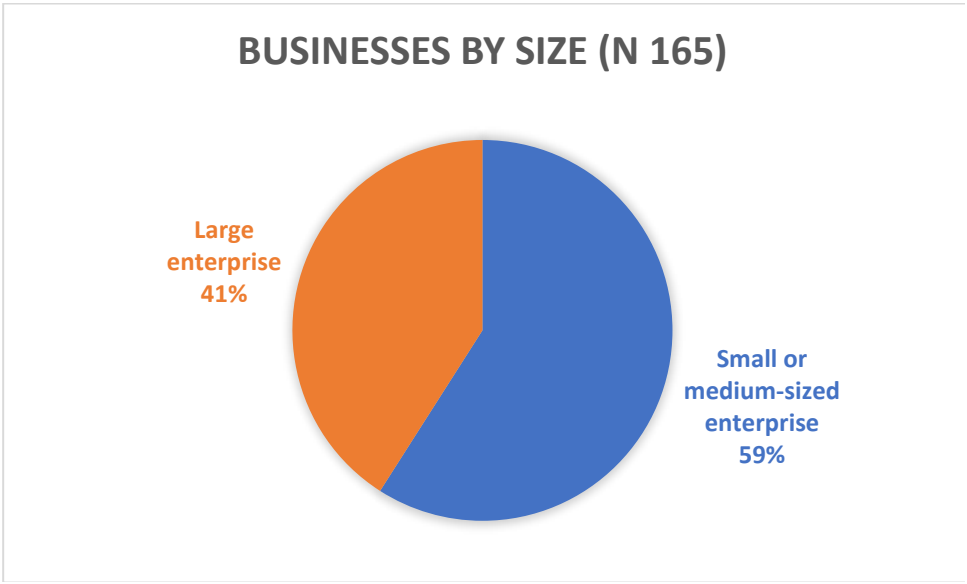

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Appendix 6: Guide for stakeholder analysis and engagement for Policy, Food and City Labs

Stakeholder management for non-profit organizations like FIT4FOOD's City and Policy Labs

A short introduction and manual

Introduction

Stakeholder management helps us identify our friends, with whom we may collaborate to achieve our goals, and also those who may want to oppose us and may therefore need special attention, and preferably be transferred to a supporter or colaborator.

An organization's stakeholder is an individual, group or organization which is either affected by, or should be allowed to influence or be involved in the process of realizing the vision/aims of this organization.

The concept of a stakeholder

The notion of a stakeholder as it is used in contemporary stakeholder theory, was introduced by R. Edward Freeman in his 1984 work entitled *Strategic Management: A Stakeholder Approach* (Freeman, 2010). Initially, the concept was used to emphasize how organizations are dependent on the wider society, or more specifically, certain groups or entities in this society (metaphorically named their "stakeholders"), for their success. The main perspective was strategic or pragmatic, focussing at the need to understand the interest of significant stakeholders, and to satisfy them as far as possible, in order to secure the successful operation of the organization. Later, the scope of the theory was extended under influence from *social responsibility theory* and other forms of *organizational ethics*, arguing that there are groups and entities whose interests the organization has an ethical moral obligation to respect or to secure, which should also count as stakeholders. Examples of such stakeholders are environmental groups, third world farmers, or more generally; the ecosystem or future generations.

In this manual, we will use this definition of a stakeholder:

An organization's stakeholder is an individual, group or organization which is either affected by, or should be allowed to influence or be involved in the process of realizing the vision/aims of this organization.

Keeping this definition in mind will guide us through the process of identifying our stakeholders and managing our relations to them.

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When we talk about the an organization's stakeholders, we use the term 'organization' in the widest sense possible. It includes both permanent and temporary organizations. Under the latter category we also find temporary project organizations like the one established in the FIT4FOOD2030-project.We may also distinguish between the whole FIT4FOOD2030-project as such, with its stakeholders, and the individual Policy Labs and City Labs within the project, that each will have their specific groups of stakeholders.

Understand your own organization's visions and aims

In the above definition, focus is placed on the organization's visions and aims. This is worth noticing: A stakeholder only becomes a stakeholder in relation to a vision or the more specific aims pursued by your organization – and the actions you initiate to realize them.

The first step of the stakeholder management process, therefore requires that you have a clear view, or at least an idea, of your organizations visions and aims.

Visions and aims

Why does the organization exist? What is it for? Who is it for? Which areas does it address? What changes/improvements should it seek to promote? I we look five or ten years ahead, and is we assume that the organization has been successful, what has happened, and what do we see, specifically, that make us realize this success? And, what have we done to get there? These are all questions that are relevant at this first stage of the process. And the answer to them will direct us towards the vision and aims of the organization.

Stakeholder identification: First step

Start by making a list of your organization's 5-10 most significant aims. In stating these aims, seek to formulate aims that are neither too general nor too specific.

Then for each aim, ask yourself; who are *either affected by, or should be allowed to influence or be involved in the process of realizing these aims?*

Before continuing, please notice that a separate stakeholder analysis should be performed for each of the aims that you have identified. For each aim, a new group of stakeholders may potentially be identified, even if some stakeholders may also relate to the organization on a more permanent basis.

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An example of how specific stakeholders are connected to specific aims/projects

Imagine an art gallery organizing changing exhibitions dedicated to various minority cultures, for instance:

- GLBT-culture
- Somali women's culture

For the first exhibition, members of the local GLBT-communities are relevant stakeholders, while for the second exhibition, a relevant stakeholder is the local Somali Women's association. We may also imagine, however, that the general art audience constitutes a more permanent stakeholder group relative to both exhibitions, and the gallery as such.

Stakeholder roles: Beneficiaries, supporters and antagonists

An early criticism directed at the stakeholder concept, it that a stakeholder analysis may very quickly generate an almost unmanageable long list of stakeholders. One way to meet this challenge, is to focus at the more significant stakeholders, and also to categorize them under different categories.

Unfortunately, no agreement exists regarding what is the better category or classification system for stakeholders. However, to get the analysis started, the following list of questions may be relevant to non-profit organizations:

a. For whom outside of the organization do we pursue this aim?
b. Who are our potential allies in realizing this aim, or who may support it?
c. Who might oppose us or try to stop us from realizing this aim?

In answering these questions, the following individuals, groups or organizations may be identified as belonging to the following three stakeholder categories:

a. Beneficiaries
b. Potential supporters
c. Potential antagonists

Notice that membership in these categories is not exclusive; one person, organization or entity may belong to more than one category, and may also change from one to another.

Beneficiaries

Beneficiaries are those immediately addressed by an aim, those for which it were set up in the first place. For instance, in the above gallery example: When the gallery sets up the aim of organizing an exhibition dedicated to Somali women's culture, a significant beneficiary (for whom the exhibition is organized) is the city's Somali community. Additionally, the general art audience is a significant beneficiary.

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Potential supporters

Potential supporters are those who support an aim that the organization is pursuing, or who may have the potential to enter this role. Support may come in many forms: funding, knowledge, legitimacy, etc. Most of, or all of the stakeholders that was identified as beneficiaries in the previous step, may also be assumed to fall under the stakeholder category of supporters, as it should be in their interest as beneficiaries to help the organization succeed. However, supporters may also be found outside of the group of beneficiaries.

Multiple forms of stakeholder's assistance

Assume that the art gallery organizing an exhibitions dedicated to Somali women's culture, identify the local Somali Women's association as a stakeholder, categorized both as a beneficiary and a potential supporter. Let's assume that the association is unable to support the gallery financially, as its own funding is weak. It may, however, still offer useful assistance in other ways. Perhaps it may give the gallery information on Somali artist. Perhaps it may help promote the exhibition to the Somali community, lending the exhibition legitimacy.

Outside the group of immediate beneficiaries, the gallery may have other stakeholders in the role as supporters, for instance in the local City Council, providing funding, and more locally, cafes and restaurants in the neighbourhood, who view the gallery as a useful attraction, and in return, allows the gallery to put flyers for its exhibitions on their premises.

Potential antagonists

Antagonistic stakeholders are those who may oppose, resist, slow down or try to stop the organization from reaching its aims, or even undermine he very existence of the organization.

The role of antagonist is not fixed once and for all. Whether a stakeholder belongs to this category or not, depends to no little extent on how you relate to the stakeholder. If, for instance, you see a potential conflict between your own aims and the stakeholder's aims, then you may attempt to initiate a dialogue with the stakeholder, exploring how a conflict mat be avoided, or ideally, how both may profit from the new relationship. Instead of having an antagonists, you will then have transformed the stakeholder into a supporter.

Do not overlook significant stakeholders

In order to not overlook significant stakeholders, check out whether anyone from the following groups may be potential supporters or antagonists to your organization and any of its aims:

- Regulators and policy makers
- Funding agencies
- Citizen or grass-root movements

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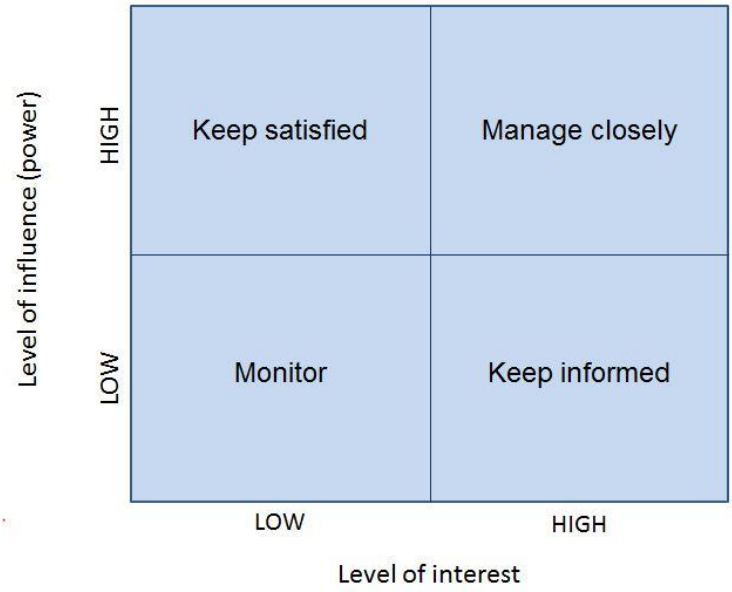
- Political parties

Also, don't forget the (ethical) values that you decide to build your organization on, and may direct you towards groups and entities whose interests the organization has an ethical obligation to respect or to secure, which should also count as stakeholders. Examples of such stakeholders may be third world farmers, the ecosystem or future generations. Even if it may be hard to find the spokespersons of such stakeholders, you may still try to act in a way that takes their interests into account.

Power versus interest

A much used tool to analyse and differentiate between stakeholders, is also the interest/power grid illustrated below in Figure 1.1.

Figure 1.1 Interest/power grid



When setting up a list of stakeholders, reflect first on the potential power each stakeholder has to influence you (from low to high) and then on the potential interest each stakeholder has in what you are doing (also from low to high). Notice that a stakeholder which is high in one of these dimensions, may not necessarily come high in the other.

Decide who are your more significant stakeholders

The result of the above steps should be a stakeholder inventory with three main sections corresponding to the three main stakeholder categories introduced above (beneficiaries, potential supporters and potential antagonists). Soon you will have to decide how you want to relate to each of these stakeholders. Before you decide upon that, however, you should reflect a little more on the stakeholders that you have identified.

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Among the beneficiaries and potential supporters, ask yourself who are more significant, in the sense that without their collaboration, it would be hard to achieve your aims. This should be counted as more significant. You may also take into account the results from the power/interest analysis; those stakeholders who are high in power or interest, and that you need to realize your aims, will probably turn out to be more significant. Among the potential antagonists, ask yourself who are more likely to actively resist you, and who are also high in power. These should also be included among our more significant stakeholders.

Deepen your understanding of the stakeholders

Before you actively stablish relation with your more significant stakeholders, it may also be a good idea to try to understand each of them better. First and foremost, you should try to grasp their visions, aims and interests. What is driving them? What do they want to achieve? And how does this align with the vision, aims and interests of your organization? Do they harmonize, or is there a potential conflict to be found? The more you understand of this, the better chances do you have of successfully building productive relations with your significant stakeholders. This is the same principle as in friendship: The better you know your friend, the easier it is to build a good friendship.

Stakeholder relations

Now you are ready to begin to set up a plan for how you will relate to your significant stakeholders. This is perhaps the most essential, but also demanding, step of the stakeholder management process. The starting point is the insights you have gained so far, concerning the role of each stakeholder, their visions, aims and interests, the degree of alignment or conflict relative to your organization's vision, aims and interests, and your assessment of their power or interest. You may also want to take into account the ethical obligations relative to the different stakeholders, following from the values that your organization is committed to.

Based on this you need to discuss and reflect on what your response should be, or more generally, how you should best relate to each stakeholder, and what actions should be involved from your side. The range of options may involve action points such as the following:

- Give the stakeholder a voice in the organization's decision processes, or involve it in a deliberative dialogue/reflection.
- Include the stakeholder as a member in the organization (may be particularly relevant in network organizations).
- Revise your mission, vision, goals or strategies, or their implementation, in order to reduce conflict and increase alignment with stakeholder goals and interests.
- Keep the stakeholder informed.
- Do nothing now, but reassess later.

Reflections of this type should be performed recurrently, and may also involve input or dialogue with the stakeholders themselves.

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Appendix 7: Overview of Lab trainings

Coming

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FIT4FOOD2030
Towards FOOD 2030 – future-proofing the European food systems through Research & Innovation

Dynamic Learning Agenda.

A manual

Theodor Kittelsen (1857-1914): Illustration to the Norwegian folktale «Soria Moria»

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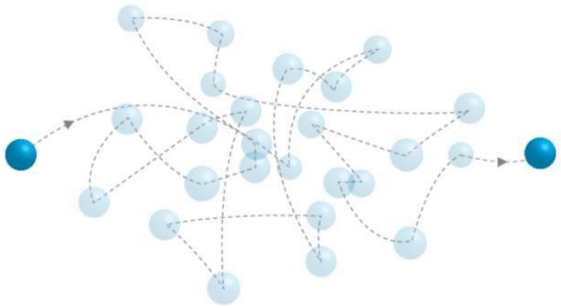
Content

Introduction

A "Dynamic Learning Agenda" (DLA) is a method for reflection and learning in action. It is particularly relevant for organizations seeking to facilitate complex and difficult change processes. It focusses on challenges arising in such processes, and suggests how the organization may work with them through a systems analysis identifying barriers and resources. Central in the DLA method stands the formulation of learning questions, and the continuous reflection on and revision of such questions, giving DLA its dynamic character. Adding to this dynamic character is the constant forming of new questions, while others may recede more into the background. Essential is also the embracing of an active agent perspective and the ambition to "make a difference".

Present situation



Desired situation

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Figure 1. Graphic representation of a DLA-process

The DLA-method is especially appropriate when development follows no linear pathway, has no central steering, requires an emergent design, has multiple stakeholders, involves changes at multiple levels, and includes co-innovation.

In FIT4FOOD2030, the DLA method is recommended as a tool for learning in the Policy Labs and the City Labs who are contributing to the transformation of research and innovation (R&I) around Food and Nutrition Security. The Lab coordinators facilitate the DLA in their respective labs. Additionally, the Lab coordinators form a community of practice (CoP), a community formed around a shared domain of interest to generate innovative, creative solutions and practices. Activities in this CoP involve common learning sessions and group counselling sessions, facilitated by one or more members of the FIT4FOOD2030 consortium. Among other things, these sessions will be used to support the labs' DLA-practice, both by focusing on the method, and the labs' experience in using it, along with the labs' learning questions and their development. To the extent that the CoP-members identify common learning questions, they are also encouraged to use the DLA-method in a common reflection of these questions.

This document has the form of a manual giving a brief presentation of the DLA method to Policy and City Lab coordinators. It will be used as a resource in the training and counselling sessions that will be offered to CoP-members (Lab coordinators) within the project. It should be noted that gaining the full value of the manual presupposes participation in these training and counselling sessions. In the remainder of this deliverable, we specifically address the Lab coordinators as our primary audience.

Background

According to the French philosopher Jean Paul Sartre, 1905-1980, being human means to set aims for oneself and what one wants to achieve. A condition for doing this is the capacity for imagining that which does not yet exist, but that we want to exist. The contents of these imaginations are what we may call 'visions'.

Groups– like the Policy Labs or the City Labs of FIT4FOOD2030 – may also have visions, typically cocreated in collaboration between lab members. The design of such visions lies outside the focus of the DLA, however, further information on vision design may be found in FIT4FOOD2030 deliverable 1.1. We assume that you have set up visions for your lab before you start the DLA-process. However, during the DLA-process, it may well happen that you find that you need to revise or change part of these visions. In this sense, your DLA-process may also have relevance for your lab's visions.

Be specific about your aims

A DLA process focusses not at visions as such, but on more specific aims derived from these visions. Assume you set up this as your vision: "We aspire to a future with reduced waste in the food chain." A more specific aim derived from this vision is: "To engage our local municipal government to work for reduced waste in the food chain."

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Please notice how important it is – within DLAs – to avoid aims that are too general. The aims you set up as the starting point of a DLA-process should be specific in the sense that they indicate *where* and in relation to *whom* you may direct your energy in attempting to realize them. In this respect, the above aim is a good example. It identifies with a high degree of specificity *who* you want to engage in the change that you want to achieve, and *what* the change should involve. Being able to specify the "who" and the "what" as in this example, is a good indication that you have been successful in setting up an aim that will produce an interesting and useful DLA-process.

Systems analysis I: searching for barriers

Assume now, that you try to realize your aim without success. Or, perhaps even before starting to act, you feel hesitant, as the upcoming task feels too challenging. This may be frustrating. Instead of just giving up however, you decide to try to understand the nature of the challenge, and to find a way to overcome it.

In trying to understand the nature of such a challenge, a systems analysis is valuable. So that is what you do next. Performing a systems analysis involves, initially, to observe and to analyze one's environment, or the "system" forming the context of one's actions, looking for the barriers preventing goal attainment. Questions relevant for identifying barriers are:

- Why are we unable to reach this aim?
- What specific factors are preventing us?
- Why has this aim not been realized already?

In answering these questions, it may be useful, first, to have an open brainstorm on what the barriers that hinder progress may be. If at this point you involve your lab members in a DLA workshop: Ask the participants to write their propositions on Post-it notes, one barrier on each note (all the barrier notes should then have the same colour).

To ensure that you do not become too narrow-sighted in identifying barriers, you may then use the following checklist to see whether significant barriers may have been left out unintentionally. Ask: Are there any barriers at any of the following levels that are relevant to your challenge?

Barriers can be structured according to the following categories:

- *The knowledge infrastructure:* facilitates or obstructs access to and development of research and knowledge.
- *The physical infrastructure:* facilitates or obstructs physical or virtual accessibility and the way actors operate.
- *Legislation and regulation:* refers to the formal rules that can promote or hinder goal attainment, such as technical standards, employment legislation or the legal framework.
- *Values, norms and symbols:* refers to the political and economic climate and the culture of a country, region or sector, and to social norms and values.

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- *Interactions:* can be too intensive, meaning that the actors' relationships become so tightly intertwined that nobody can take the first step, and their view of reality will be distorted; it can also be too loose and too narrow in scope, so that people are unaware of each other's visions.
- *The market structure:* refers to the system barriers and opportunities that arise due to a range of market phenomena such as monopoly, oligopoly, supply and demand.

The list may be extended with other areas that may be of particular significance to your specific aims and the challenges arising in trying to realize them.

If the list of barriers emerging from this first step of the systems analysis gets very long, it may be useful to try to identify the more significant of them, and to give these priority in the further process. The criterion for significance is here that the barrier is *basic* in the sense that, if you manage to overcome it, you will be significantly closer to realizing your aim. An additional criterion is *pragmatic*; that it is in your power to influence the barrier and to achieve a positive outcome.

This requires that the barriers that you give priority to, should be formulated (again) with a certain specificity, concerning the «where», «who» or "what" of the barrier. Where is the barrier situated in the system, who is involved (specific persons, organizations or institutions), and what is the nature of the barrier?

For instance, to point at "the current economic crisis" as a barrier, is not very helpful, both because the notion of a crisis is here very general, and because it is not very probable that the actions of a City or Policy Lab may help to overcome the crisis.

If you formulate as a barrier, however, that "our municipal government lacks knowledge of how to reduce waste in the food chain", then you have found a barrier that, probably, you have a chance of overcoming. Therefore, this is the type of barriers that should have prominence in your work.

Learning questions

Learning questions form a significant part of a DLA. A typical learning question in a DLA addresses how one may design actions to realize a specific aim, conceived on the background of the barriers identified during the systems analysis, while retaining a strong sense of agency. At a general level, such a learning question has the following form:

> "(1) What can we do to achieve (2) this aim while (3) this barrier exists?"

The question may be analyzed into three parts, each associated with the methodological steps described above: (1) is based on the agent perspective that needs to permeate the whole process, (2) is based on the specific aim chosen as the starting point for a particular DLA-process, while (3) refers to a barrier identified in the systems analysis.

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Let us formulate a learning question from the example suggested above. Here, we defined as our aim "to engage our local municipal government to work for reduced waste in the food chain," and we suggested that a significant barrier for achieving this, was that "our municipal government lacks knowledge of this". The ensuing learning question then could be formulated:

> (1) What can we do (2) to engage our local municipal government to work for reduced waste in the food chain, while (3) our municipal government lacks knowledge of this?

If you have identified several significant barriers that are likely to prevent the realization of *one aim*, you should *for this aim* design as many learning questions as there are barriers, i.e., one for each barrier. In a DLA, thus, one aim may generate a number of different learning questions.

Systems analysis II: searching for opportunities/resources

After having formulated your learning questions, it is time to begin the process of answering them. The relevant step is to do a new systems analysis, but now with an emphasis on the resources or opportunities that exist within the system, which may help overcome the barriers that the learning questions have pointed at.

Take one learning question (and one barrier) at a time and seek for the resources or opportunities that may contribute to overcoming the barrier. Again, you may begin with an open brainstorming process, and then continue by examining the areas mentioned in the above checklist searching for further resources or opportunities for each of the areas involved.

If you do this in a DLA workshop, you may ask the participants to write each potential resource or opportunity on a Post-it note (now with a different colour for all the propositions), and then at a later point, match the resource-Post-its with their related barrier-Post-its.

The change begins with you

Notice, that merely finding resources and opportunities in the system that may help overcome a barrier, does not alone answer a learning question. In order to arrive at a more complete or final answer, you need also to answer the first part of the question; "What can *we* do to…." After having identified and assessed the relevant barriers and resources/opportunities, you need to *start designing a plan* for how *you* may initiate a process where the resources/opportunities are mobilized to overcome the barriers, so that the aim that served as the starting point, may be realized.

To achieve this, it is essential that you define yourself as an actor who is willing and able to "make a difference", and to contribute to real change. This does not mean that you must solve all challenges yourself. Probably, most of the barriers and challenges that you will focus on in the DLA will have to be addressed in collaboration with others. However, it is still essential that you look at yourself as an active initiator or agent in this process. In this sense, a DLA is not just a method; it is just as much a mind-set or an attitude.

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The dynamic aspect of a DLA

When you formulate a learning question, and start the process of answering it, the systems analysis carried out to assist your endeavour, is not necessarily done once and for all. It may be that – while working with the system to achieve your goals – you discover more about it, both its barriers and resources, which necessitates a revision of your original learning question. Moreover, after some time, as your initial aims are realized and new aims gain priority, new learning questions will emerge to replace earlier ones. However, it may also happen that certain learning questions persist. In that case, they may need to be addressed with increased energy. Alternatively, such long-lived learning questions, that you work with without success, may indicate that the aim that lies at its basis, should be given up or revised, or at least, this may be discussed as an option.

In all these cases, however, you should from time to time take stock of your learning questions, make some notes on how work with each question has developed, what insights working with them has produced, and whether they have been revised (see figure 2).

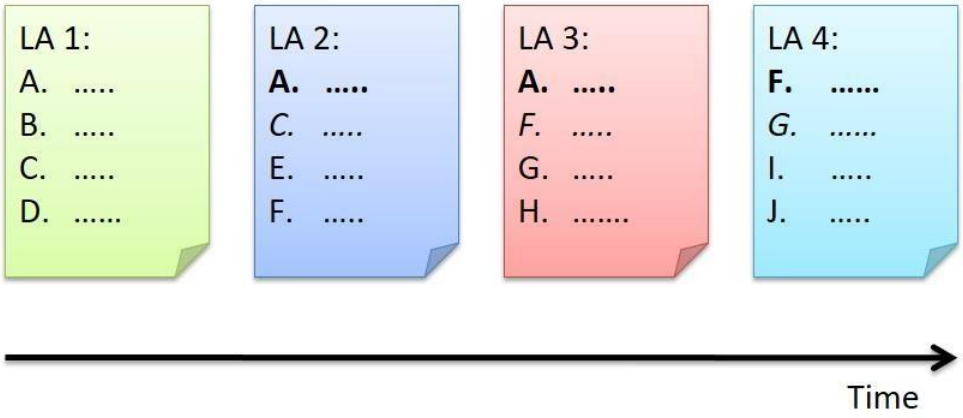

Figure 2. Representation of a Dynamic Learning Agenda

While working with DLA (LA1-LA4 here represents different points in time) some learning questions (A-D here represent learning questions) stay with you briefly, while other may be of interest over a longer period of time. In the course of the process, moreover, new learning questions arise.

The DLA-log

In order to keep track of these changes, a template for a DLA-log has been developed, see Appendix 1. Use one template sheet for one learning question. The different sections of the sheet allow you to register the outcome of the systems analysis and other essentials in dealing with this specific question. The sheet should be regarded a "living document", meaning that you may use it to keep track of revisions or new insights that you gain in the process of working with the learning question. The DLAlog is constituted by all the individual log sheets that you set up throughout the project. This log will also enable others to keep track of your learning process, and to learn from it. In the FIT4FOOD2030 project, it will also be used to monitor the learning processes taking place within the

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City and Policy Labs. For this reason, Work Package 8 will have access to the log at certain points. The learning questions will also form the basis for joint learning sessions between the Lab coordinators.

As a Lab coordinator, you are responsible for continuously updating the DLA-log. In facilitating the DLA-process, you have the choice of carrying most of it out in workshops where all lab members are invited to join, or only parts of the process. For instance, you may decide to take responsibility for formulating learning questions and keeping track of them yourself, and only involve the others in the systems analyses. How you do this, more specifically, and the degree to which others are involved in parts of – or the whole of – the process, will also be a topic of the counselling sessions offered in the CoP.

The Golden Rule

Finally, in order for the DLA to work, participants must avoid over-confidence, and be willing to admit both to themselves and others that challenges exist, and that they don't yet know enough to handle them. Developing a culture where this is not merely tolerated, but actually celebrated, as the obvious starting point for all learning, is here essential. Thus, the golden rule of DLAs:

Admitting what you don't know or cannot handle yet is a strength!

Monitoring and reporting

One of the work packages in FIT4FOOD2030 999(WP8) is dedicated to monitoring how the development of the City Labs proceeds, and to summarize this into a report by the end of the project. The DLA log sheets, as well as the DLA sessions, will give useful input to this monitoring. Lab coordinators are therefore asked to use the Log sheets to document the emergence of new learning questions, as well as how they develop (whether/how they are solved).

There are no fixed rules as to how many log sheets you should establish. This should be adapted to the number of challenges that become salient in your Lab coordinator work, however, somewhere between 5 and 20 open log sheets at any time could be an indication.

Read more

You may read more about DLA in the manual *Reflexive Monitoring in Action - A guide for monitoring system innovation projects*, by Barbara van Mierlo, Barbara Regeer, Mariëtte van Amstel et al.

(Publisher: Athena Institute, VU). The manual may be downloaded from:
https://transitiepraktijk.nl/files/RMAengDEFcor.pdf

The present document has borrowed content and elements from this original manual.

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Dynamic Learning Agenda – Log sheet

Please, use one sheet per learning question.

State the aim that you find it difficult to achieve:	
Date for first setting up this aim:	
Notice that one aim may generate several learning questions, each corresponding to <u>one</u> significant barrier. Thus, the aim just stated may serve as the starting point for setting up several logg sheets, each corresponding to a separate barrier.	
Mention *one* significant barrier making it difficult to achieve the above aim:	
State the learning question following from this:	
How can the barrier be overcome? Which resources exist for this in the system?	
How can you contribute to a positive outcome? Please, set up points for an action plan:	

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Date when aim was realized:	
Please use the backside of the log sheet to make notes on what you are doing in following up the learning question and its associated action plan, and what you learn on the way. What worked, what didn't work, why, etc.? Also, if relevant, report any revisioins of the learning question or of the systems analysis that is taking place.	

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Appendix 9: Overview of webinars

Power & Vested Interests

Kris Kok, VU

Date: Thursday 5th March, 11-12:30, Brussels time

Description: Understanding and influencing the politics underlying (the lack of) societal change is a key element in securing sustainable futures. In this webinar we will discuss the concept of power: what does it mean, how can you observe it (in your Lab activities for example) and how can you try to influence undesirable power dynamics? We will discuss your experiences with power as well as strategies for engaging powerful actors representing vested interests.

Dialogue, trust and conflict management

Helge Svare, OsloMet

Date: Wednesday, 25th March, 10:00-11:30, Brussels time

Description: Tension, distrust and conflict may materialize an a relationship or in a network for a variety of reasons, and sometimes one does not realize what provoked it until after the event. In this webinar we take a look at some of the factors that may cause negative tension, distrust and conflict. There will be a particular emphasis on how to prevent these negative dynamics in the first place, and so establish the ground for a more productive dialogue.

Small wins

Barbara Reeger, VU,

Tuesday, June 9, 14.00-15.30 CET

During this webinar we will explore the relation between actions in the here and now and long-term impact. We will introduce the "small wins" framework (Termeer and Dewulf, 2019; Weick, 1984) to help understand which actions have the potential to catalyse R&I and food system transformation and why. The framework is rooted in non-linear complex systems thinking and is based on the idea of making progress for the longer term by accumulating small wins in the present in combination with propelling mechanisms that help to strengthen the effects of small wins. We will explore what this means for the experiments in the Labs, how we can understand what happened or didn't happen and what we still may be able to do in the months to come.

Impact Narratives

Helge Svare, OsloMet

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Tuesday, June 16, 1100-1200

In this webinar we will explore how you may design short and inspiring stories or “narratives” based on your experiences from managing your Labs, to be used in information/reporting activities.

The webinar starts with a short theoretical presentation on narrative theory, with tips on how to create a so called “impact narrative” which is a particular kind of narrative appropriate for our purpose in FIT4FOOD2030. Then we will examine an example of such a webinar from the Norwegian Policy Lab to get a better grasp of what such a narrative could look like. We end the webinar by inviting you to start the process of designing your own Lab narrative(s).

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