



SWITCH

Switching European food systems for a just, healthy and sustainable dietary transition through knowledge and innovation

Report of multi-actors engagement activity. Factors, barriers and constraints influencing the dietary behavior of different target groups across Europe (including vulnerable groups): evidences and recommendations

D5.1

December 2023

Table of Contents

Table of Contents	2
Disclaimer	3
Copyright message	3
Document History	4
Partners	5
Terms, abbreviations and acronyms	6
Executive Summary	7
1. Introduction	9
1.1. Purpose of deliverable 5.1	9
2. Theory and learnings	10
2.1 Theoretical underpinning	10
2.2 Key learnings from other projects	12
3. SWITCH Actor Engagement Process	16
3.1 Rome Kick-off Meeting	16
3.2 Actor network analysis	17
3.3 Hub workshops	18
3.4 Literature review: operationalising Food Hubs	24
3.5 Inventories of Hub and Hub regional characteristics, barriers and opportunities for engagement	26
3.6 Actors to be engaged in SWITCH Hub activities	27
4. SWITCH fingerprint profiles: the region, the Hubs, the network and perceived barriers and opportunities	28
4.1 Hub 1. Rome and Lazio region (Italy)	28
4.2 Hub 2. Cagliari and Sardinia region (Italy)	42
4.3 Hub 3. San Sebastian and Basque region (Spain)	49
4.4. Hub 4. Montpellier Metropolis and Occitanie region (France)	58
4.5. Hub 5. Berlin and Federal State of Brandenburg (Germany)	65
4.6 Hub 6. Gothenburg and Vastra Gotaland region (Sweden)	73
5. Summary	82
6. Conclusions and recommendations	88
7. Hub fingerprint summaries in local languages	99
7.1 Hub 1. Rome and Lazio region	99
7.2 Hub 2. Cagliari and Sardinia region	102
7.4 Hub 4. Montpellier Metropolis and Occitanie region	105
7.5 Hub 5. Berlin and Federal State of Brandenburg region	107
7.6 Hub 6. Gothenburg and Vasta Gotaland region	108
A. References	116
Annexes	122
Conclusion	197
Reflection & Recommendations	198

Disclaimer

The content of this deliverable reflects the authors' views. The European Commission is not liable for any use that may be made of the information contained.

Copyright message

SWITCH is a Horizon Europe Project supported by the European Commission under contract No.101060483. All contents of this report are reserved by default and may not be disclosed to third parties without the written consent of the SWITCH partners, except as mandated by the European Commission contract, for reviewing and dissemination purposes. All trademarks and other rights on third party products mentioned in this document are acknowledged and owned by the respective holders.

The information contained in this document represents the views of SWITCH members as of the date they are published. The SWITCH consortium does not guarantee that any information contained herein is error-free, or up to date, nor makes warranties, express, implied, or statutory, by publishing this document.

Document History

Deliverable Title	D5.1 - Report of multi-actors engagement activity. Factors, barriers and constraints influencing the dietary behavior of different target groups across Europe (including vulnerable groups): evidences and recommendations
Description	Report describing the multi-actors engagement activities planned and implemented in each Hub, specifying for each Hub how the local partners acting as leading institutions will identify, inform and actively involve the main actors and stakeholders of the local food system, and how all the actors will be actively involved through direct actions. Moreover, the report will describe factors, barriers and constraints influencing the dietary behavior of different target groups across Europe (including vulnerable groups), providing evidence and recommendations. The Report will include the Short synthesis of the Report of multi-actors engagement activity (D5.1) in local languages for local stakeholders for the 6 Hubs.
Type of deliverable	Report
Dissemination level	PU - Public
Work package	WP5 - Food hubs as living labs for better adherence to healthy and sustainable dietary behaviour
Lead beneficiary	WU
Author(s)	Laura Bouwman (WU), Leah Rosen (WU), Kristel Polhuis (WU), Spencer Moore (WU), Sonia Massari (FFI), Daniele Pestoni (FFI), Maria Laura Grilli (FFI), Margherita Martinelli (UNICAMP, Hub 1), Silvia Paolini (AGROCAMERA, Hub 1), Andrea Cerimele (Agenzia Laore, Hub 2), Lara Abou Chehade (CMCC, Hub 2), Letizia Andriani (CMCC, Hub 2), Victor Martinez (BC3, Hub 3), Inma Batalla (BC3, Hub 3), Rosie Faure (WU-MSc, Hub 4), Laure Berling (INRAE, Hub 4), Jose-Luis Vicente (ZALF, Hub 5), Karen Wohler (Baumhaus, Hub 5), Claiborn McDonald (Baumhaus, Hub 5), Andrea van Eerden (WU-MSc, Hub 6), Maria Bjorklund Helgesson (RISE, Hub 6)
Reviewer(s)	UPM (Silvestre García de Jalón) and IIASA (Marta Kozicka)
Due date of delivery	31-12-2023

Date	Version	Description
22-11-2023	Draft 1	Shared with WP Leader (CMCC)
27-11-2023	Draft 2	Shared with reviewers (UPM and IIASA)
3-12-2023	Draft 3	Shared with CMCC Coordination Team
15-12-2023	First final version	Revisions and suggestions provided by CMCC
20-12-2023	Final version	CMCC approved revisions and finalised the document

Partners



Terms, abbreviations and acronyms

ABCD = Asset Based Community Development model

AFN: Alternative Food Network

AGROCAMERA = Azienda Speciale della Camera di Commercio, Industria, Artigianato e Agricoltura di Roma Per l'Agroalimentare

Baumhaus = VEREIN ZUR FORDERUNG EINER NACHHALTIGEN URBANEN KULTUR EV

BC3 = Association BC3 Basque Centre for Climate Change

BCC: BASQUE CULINARY CENTER FUNDAZIOA

CAM = in English: Minimal Environmental Criteria

Chalmers = CHALMERS TEKNISKA HOGSKOLA AB

CMCC = Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici

CO2 eq = Equivalent carbon dioxide

CSA = community-supported agriculture

EOE = Empathy Based Model Ego-Other-Eco

EU = European Union

FFI = Future Food Institute

INRAE = Institute National de Recherche pour l'Agriculture, L'Alimentation et l'Environnement

LAORE: Agenzia regionale per l'attuazione dei programmi regionali in campo agricolo e per lo sviluppo rurale

LL = Living Labs

LMP = LebensMittelPunkte

RISE = Research Institutes of Sweden

SMH = Salutogenic Model of Health

SNA = Social Network Analysis

SNT = Social Network Theory

SOC = Sense of Coherence

UNESCO= United Nations Educational, Scientific and Cultural Organization

SHF = Sustainable, Healthful Food

UNICAMP = University del campagna

WP = Work Package

WU = Wageningen University and Research

ZALF = Leibniz-Zentrum Fuer Agrrlandschaftforschung

Executive Summary

From literature, it is known that in order to promote healthy and sustainable eating in the six SWITCH Hubs require a continuous process, in which regional food system actors, including e.g. food producers and -providers, chefs, health professionals, educators, policymakers, communicators and consumers become engaged in the design, implementation and monitoring of SWITCH Hub activities. This report describes the first exploration of the engagement process that has a multidimensional nature, aims for inclusiveness and uses a participatory, co-learning and co-creation approach to understand the meaning and understanding assigned to sustainable, healthful food and the resources available and required to take action.

In 2023, the first year of SWITCH, we invested in exploring barriers and opportunities towards actor engagement through multiple workshops and activities. We discussed the why-how-what of the Hubs, learnt how to map the regional actor networks and how to collect our own and actor perspectives through self-reflection, interviews and events. Step-by-step we learn how to effectively work together within an interdisciplinary and multi-site project like SWITCH.

Besides learning to work together, we have applied the first evaluation step, based on the theory-based, realist evaluation framework established in WP4¹. This concerned the inventory of characteristics of the regions, the Hubs and their actors. The findings are consolidated in 'Fingerprints' of each Food Hub, that describe regional demographics, foods, groups and current and intended activities. They as well report barriers and opportunities perceived by Hub members and food system actors. Shared barriers relate to four themes: 1) disconnectedness from regional production which has led to preferences for imported, convenience foods; 2) imbalances in food access for groups considered marginalised (consumers and producers); 3) misalignments of policies as well as visions, definitions and guidelines and 4) inaction concerns inadequate policies, bureaucracy and low competence as well as low political interest. These barriers represent important, deep-rooted issues within European food systems. Opportunities include a mixture of resources at socio-cultural, economic, political, physical-environmental level and were categorised in strategies that may counteract the perceived disconnectedness between people and food, re-generate balance and alignment and igniting action. Examples are activities that foster connectedness through valorisation of regional territory, traditions, culture and foods, cultivate a shared sense of familiarity, belonging and appreciation, with gastronomy playing a key role. Relative cheap food markets, existing infrastructure and green and blue locations provide a way to increase demand for small producers and provide affordable, accessible local food to regional inhabitants. Also, small, bottom-up initiatives provide critical mass to advocate for policies and subsidies that favour regional, sustainable produce over imported, unsustainable and high processed foods from (multinational) large companies. Another opportunity was perceived in reframing sustainability into a positive challenge that resonates with everyday reality of actors, invites engagement, alignment and creation of

¹ WP4 – Social Assessment of determinants of healthful, sustainable dietary behavior and lifestyles

social networks, partnerships and initiatives that are characterised by coherent coordination to ensure sustainable use of resources.

The inventory of barriers and opportunities has inspired Hubs to formulate their first conclusions on their further steps of the actor engagement process, leading to formulating their activities within the first six months of 2024 (M18).

The next step is that Hubs build their own 'playbook' for engaging actors, since standardising practices, methods and tools has shown to be ill-suited to the different barriers and opportunities present in SWITCH Hub regions. A rich set of tools and methods is available to continue the co-creation, co-learning and co-evaluation activities, based on the learnings from the first SWITCH year.

From the WP4 literature review (see Deliverable D4.1), the salutogenic model of health proves to be a useful theoretical framework to engage actors and to co-create effective activities to promote healthy and sustainable food practices. In short, this means that the methods foster active participation and flexibility, inviting actors to share their personal experiences on healthful sustainable food in the region. Also, questions are framed positive and learning-oriented with the aim to gain insight in what supports and hinders them in developing motivational, comprehensible and actional capacities for engaging in healthful, sustainable food choice.

1. Introduction

Literature suggests that the promotion of healthy and sustainable eating within the six SWITCH Hubs requires a continuous process that involves the active participation of regional food system stakeholders in the design, implementation and monitoring of the SWITCH Hub activities (Antonelli et.al. 2020; Deschesnes et.al., 2014; Gregory-Smith et al., 2017; Husain & Sidhu, 2021; Levay et.al. 2020; Massari & Roversi, 2023; van Vooren et. al, 2020). Such actors include e.g. food producers and -providers, chefs, health professionals, educators, policymakers, communicators and consumers. Yet, although most food system actors perceive a sense of urgency, taking action is not an easy task. Their everyday work practices are linked to those of other actors and shaped by and rooted in broader contexts and habits of society. Engaging in more sustainable practices thus requires addressing individual motivations, cognitions and skills as well as changing the socio-cultural, economic, organisational and physical environment in which food practices are embedded (Cullen et al., 2015; Van Woerkum & Bouwman, 2014). From this starting point, it is clear that engagement will not arise from awareness-raising and education only and studies confirm that many actors are indeed unable to act on awareness only (Reisch et al., 2016).

Within SWITCH, engagement is considered to be a learning process that takes shape through collective actor learning to understand interdependencies, foster empathy and mutual understanding on how to act (Adefila et al. 2021; Massari 2021). This is especially important since SWITCH applies a transdisciplinary approach which means breaking down silos and integrating knowledge from actors representing different disciplines to ensure a holistic understanding of the complexities inherent in the food system. SWITCH activities are developed using multiple criteria related to social, cultural, environmental and economic aspects. Hence, unveiling interdependencies between actors, their roles and tasks is key to effective cooperation and coordination (Rajabi, 1998)

Work Package 5 (WP5)² involves facilitating the actor engagement processes initiated by SWITCH Hubs. It is interlinked with WP4, which defines and applies the social assessment framework for hub activities. Hence, this deliverable has been a collaborative effort of the SWITCH partners that are involved in both WPs.

1.1. Purpose of deliverable 5.1

The aim of this deliverable is to provide the state of the art of the SWITCH actor engagement process up to November 2023. We have established a theoretical foundation that guides this process, highlighting the importance of reflecting on the meaning of investing in sustainable change. During WP5 meetings and workshops, we have collaboratively learnt about mapping actor networks, similarities and differences between Hubs and challenges that arise when working in an interdisciplinary, multi-site project. These shed light on critical aspects to address for continuing effective and inspired internal project collaboration. Each Hub has created a regional fingerprint that outlines characteristics, challenges and opportunities that inform the identification and development

²WP5 – Food Hubs as living labs for better adherence to healthy and sustainable dietary behaviors

of Hub activities. This collaborative effort, in which regional actors participate in the co-learning and co-creation process, is guided by the toolkit that is provided in this deliverable.

2. Theory and learnings

2.1 Theoretical underpinning

Based on a literature review, report D4.1³ concluded that successful activities for promoting healthy and sustainable eating require:

1. Continuous investing in the quality of the relationships between all project partners;
2. Shared ownership over the SWITCH project among partners;
3. Alignment of the SWITCH project's aims with the Hubs priorities and needs.

This indicates that SWITCH activities should result from a participatory, co-creation and co-learning process that fosters mutual understanding, trust and accountability among partners as well as a process in which there is room for creative, collective reflection. Within this process, all actors are invited to actively participate in decisions and actions during all stages of the project, with the aim to foster bonding, commitment and ownership. The Hub actor engagement process is considered a learning process that enables actors to build capacity for meaning giving, comprehension and action in a way that is conducive to sustainable, healthful food and eating practices. Applied to SWITCH, this means that WP5 facilitates a process for the Hubs and their local actors to co-create their SWITCH activities. To do this, learnings from a previous EU-project on healthy and sustainable foods were used to inform the actor engagement process and the shaping of Hub activities (see **Chapter 2**).

During the past year, WP5 leaders invited the Hub coordinators to join co-learning activities that support them in developing meaning, comprehension and actionable capacity for change (see **Chapter 3**). During this process, Hub coordinators were asked to identify resources within and outside themselves that can be applied for the development of healthier, more sustainable food practices. More importantly, these activities provided all participants important insights in the priorities of the Hubs as well as their concerns. We elaborate further on the co-learning activities over the last year in **Chapter 3**. A particularly important co-learning step took form in the creation of Hub inventories. This has been a shared task for WP4 and WP5 and involved assigning a dedicated WU students (Montpellier and Goteborg) and Hub members to conduct a context inventory to get to know the Hubs and their regions in a systematic and transparent manner. The context inventory particularly focused on barriers and opportunities for healthful and sustainable eating. The gathered insights of the context inventories are summarised in what we call 'fingerprints' as they portray the unique identities of the Hubs and the distinguishing contextual factors important for healthful and sustainable eating. The fingerprints will be used to shape further the co-learning, co-creation process to decide upon the SWITCH activities in each Hubs, based on the insights in local barriers, opportunities and the Hub's priorities. The fingerprints of each Hub are reported in **Chapter 4**. Thereafter, this report

³D4.1 - Report on realist conceptual model for multidimensional assessment

describes a concrete plan (referred to as ‘*SWITCH* playbook’) that the Hubs can use as guidance to define *together* with relevant regional food actors, which activities they will conduct as part of the SWITCH project (**Chapter 5**). This playbook is based on the fingerprints and the insights of report D4.1, particularly the Salutogenic Model of Health (SMH; see **Box 1** for a short explanation of the SMH).

The SMH serves as an overarching guiding theory for the SWITCH project. Strengthening the different salutogenic capacities of meaning, comprehension and action, requires using several tools and approaches relevant to the actor engagement process. Examples include Sinek’s golden circle (Sinek, 2009) that guide Hubs in specifying the purpose of their activities (the WHY), understanding which results they want to reach (the WHAT) and the action process through which they want to reach this result (the HOW). Similar to the SMH, the Golden Circle regards the WHY as the driving force within change processes. The EOE Empathy Model is a co-design model (Massari, Allievi and Recanati, 2021; Allievi, Massari and Dentoni, 2021) relevant to fostering empathy among Hub members and their actors. Empathy plays a pivotal role in gaining an understanding of interdependencies between actors, while acknowledging their different perspectives, needs and challenges (Marti et al 2023). Prosperity Thinking shares the Salutogenic emphasis on fostering reflection and connectedness and provides methods to design inclusive food systems that fulfil needs of all beings within planetary boundaries (Vignoli, Roversi, Jatwani & Tiriduzzi, 2021). Lastly, Participatory Design methods inform shaping the co-learning and co-design process towards meaning, understanding and action regarding healthful, sustainable food (Massari et al 2023, Massari, 2023). This report concludes with overall conclusions and recommendations for the upcoming months and deliverables (**Chapter 6**).

Box 1. Short introduction to the Salutogenic Model of Health (SMH)

The SMH is an ecological framework that studies the origin and sources of health and well-being (Antonovsky, 1987; Eriksson & Lindström, 2005). This health promotion model views health as the results of the interactions between the individual and one’s physical and social environment. A key concept in the SMH is the Sense of Coherence (SoC). SoC is a global life-orientation that expresses a dynamic feeling of confidence that things will work out as well as can be reasonably expected. The SoC captures one’s cognitive, actionable and motivational capacity to cope with everyday life challenges in a health-promoting manner. Confronted with a stressor, a person with a strong SoC is able to understand the stressor (= cognitive capacity), is able to select an appropriate strategy to deal with the stressor (= actionable capacity) and has a strong feeling that investing in coping with the stressor is a meaningful process (= motivational capacity). Research shows that strong SoC is associated with good physical health and wellbeing (Eriksson & Lindström, 2005, 2006, 2007; Márquez-Palacios et al., 2020). Several salutogenic interventions reported to result in healthier behaviours (Langeland et al., 2022; Polhuis, 2023), including eating behaviours (Polhuis, 2023). Enhancing SoC seems to require an empowering and reflective learning trajectory (Polhuis, 2023; Super et al., 2016). The learning process involves offering people learning experiences in which they can actively participate, stimulate self-reflection and foster social connectedness.

2.2 Key learnings from other projects

Learnings from the SU-EATABLE LIFE project

The SWITCH project benefits from insights of the EU SU-EATABLE life project. In this chapter, the key learnings from this project that relate to actor engagement are described (Bouwman, 2019; Tan & Bouwman, 2020; Rosen & Bouwman 2022; Bouwman & Rosen, 2022). The EU SU-EATABLE LIFE project ran from 2018 until 2021 in university- and business cafeterias in Italy and the United Kingdom (www.sueatablelife.eu). The project aimed to demonstrate that through activities within the cafeteria setting, a substantial reduction in food related greenhouse gas (GHG) emissions and water usage can be achieved through staff and customer engagement. The series of activities have resulted in a saving of about 1.7 kg of CO₂ eq. (carbon footprint) and 1,670 litres of water (water footprint) per person per day, compared to the daily average impact of a EU citizen.

Key learnings from the SU-EATABLE project provide guidance for the co-creation process as well as for food hub engagement activities (full findings in **Annex 1**).

Guidance for co-creation process for healthy and sustainable eating:

- ❖ **Start with a bang and regular follow-up** Actor engagement is a learning process that develops in stages and has a multi-level nature, varying from no interest to full engagement in which actors themselves are in control of sustainable food practices. The co-creation process should start with a bang, followed by regular activities to make sure to keep the momentum going. Activities for organisations will benefit from daily morning staff meetings to set the sustainable tone for the day, educate and support continuation of collaboration for sustainability, break down barriers and improve relations.
- ❖ **Communication** involves clear and consistent terms to avoid confusion, provide credible, relevant and applicable information and tools and address cultural and habitual food practices that are (un)sustainable (Bacon and Krpan 2018; Biswas & Row 2016; Bohme et al. 2018; Filimonau et al. 2017; Maher & Burkhart 2017; Oostindjer et al. 2017).
- ❖ **Budget** Implementing engagement activities will require additional budget and workforce that should be discussed with organisations. For activities that involve food provisioning, organisations should receive support in building good collaborations with local suppliers of flavourful, fresh, sustainable produce that can consistently provide sufficient quantities of sustainable food.

Guidance for food hub engagement activities:

- ❖ **Food first** Firstly, that everything has to be about food. This implies that activities should be food centred, making sustainable food the star of the show.
- ❖ **Affordable-delicious-simple meals** Since affordability is a key driver for food practices, luxurious, trendy sustainable meals may fuel the idea that eating sustainably is costly. Hence, it is crucial to showcase cheap, delicious, simple meals to accommodate actors in their search for affordable, do-able food practices.

Also, it is critical to include cooking new sustainable dishes to stimulate awareness of available local, plant-based foods, benefits of less food waste and improved taste and to develop new ways of cooking.

- ❖ **Intrinsic motivation** To increase intrinsic motivation for healthy and sustainable eating, it is important to connect the values of health and sustainability. Furthermore, it is important to connect sustainable food and dishes to values that resonate personally, such as helping a local farmer, regional roots or personal health. Actor training (e.g., sustainability workshops), weekly menu planners, information materials and guidance on how to sell sustainable dishes is essential for activities including food provisioning, e.g., schools, restaurants and cafeterias. Besides, It is crucial to address individual investments needed to make sustainable choices (e.g. money, time). To trigger intrinsic motivation by calling upon people to commit and act while rewarding them for doing so.
- ❖ **Enabling environment** creates an enabling environment that considers individual, social and environmental factors, and where customers can learn about sustainable diets and take control of their learning process (Bacon and Krpan 2018; Biswas & Row 2016; Bohme et al. 2018; Filimonau et al. 2017; Maher & Burkhart 2017; Oostindjer et al. 2017).
- ❖ **Positive approach** Activities should use a positive, practical approach to engagement and emphasise the goodness of sustainable food practices rather than a singular focus on risks of unsustainable choices. This implies that activities are about what actors *can do and eat* rather than what they *cannot do or eat*, to provide a positive outlook on why and how to change. It includes the provision of practical, easy tips on small actions that actors can make to contribute and know how this makes a difference. Positivity also applies to the promotion of the food itself which means a focus on enjoyable plant-rich versions of local, popular dishes and taste try-outs of new dishes.
- ❖ **Practical skills** Activities should not be limited to educational materials yet centralise the 'practical doing', meaning that they should support the everyday organisation of sustainable food practices. For food providers, this refers to simple tools for learning about sustainable meal provisioning that enable them to be flexible with meal offerings and to champion sustainable dishes.
- ❖ **Flexibility** Lastly, activities that allow for flexibility allows actors to select relevant activities such as shopping, cooking techniques or reading eco-labels that support their everyday sustainable food practices consumption.

Learnings from Pollica Living Lab, Paideia Campus and integral ecology actions

Living Labs have emerged as dynamic environments that bridge the gap between theory and practice, providing real-world contexts for innovative solutions. In the realm of education for active citizenship (ENoLL, 2023, Antonelli et al 2020) through food and environmental sustainability, Living Labs offer a transformative approach. This involves engaging students and communities in practical experiences that intertwine with societal challenges, fostering a holistic understanding of issues related to marginalised areas, the Mediterranean diet, cultural heritage, environmental preservation, and education.

Marginalised areas often face unique challenges in accessing quality education and preserving their sustainable food practices. Living Labs can serve as catalysts for change by tailoring educational initiatives to the specific needs of these communities. In such contexts, the Living Lab becomes a hub for empowering residents with knowledge and skills related to sustainable agriculture, nutrition, and environmental preservation. The objective is not only to improve individual well-being but also to enhance the overall resilience and inclusivity of marginalised areas (Massari & Roversi, 2023).

The Pollica Living Lab, co-created in 2020, stands out as a pioneering initiative in this paradigm. The Paideia Campus Living Lab in Pollica is the result of a collaboration between the Future Food Institute and the municipality and community of Pollica, and is conceived as an experimental centre and open-air laboratory for education and co-creation with the local community. Located in the culturally rich region of Cilento, Italy, this Living Lab focuses on preserving the Mediterranean diet - a UNESCO-recognised cultural heritage - and cultivating sustainable agri-food practices. In addition to preserving the local diet, this Living Lab has become an important hub for spreading the concept of integral ecology. By integrating environmental, social and economic dimensions, it serves as a model for comprehensive sustainability. In addition, the Pollica Living Lab is disseminating and contributing to co-creation at the forefront of promoting an algorithm of longevity that integrates dietary practices, lifestyle choices and environmental stewardship for a holistic approach to health and well-being.

Integral to the success of the Pollica Living Lab is its role as a centre for education and dissemination. It is actively involved in outreach programmes, workshops and knowledge-sharing initiatives, known as the Paideia Campus. By disseminating information about sustainable practices, cultural heritage and the importance of preserving the environment, Paideia Campus contributes to the formation of informed, active citizens. This educational approach extends beyond local communities (through the organization of international bootcamps, hackathon and other forms of active co-creation and stakeholder engagement), creating a ripple effect that promotes responsible citizenship and fosters a sense of global interconnectedness for a sustainable future.

The Paideia Campus, located in the Castle of the Princes of Capano, is an ecosystem of open innovation in real environments that serves as an alternative learning space for schools, citizens, research centres and public and private institutions. Since its inception, the Paideia Campus has been used by local schools as a venue for curricular and extracurricular activities, offering young people the opportunity to learn about concepts related to the territory's identity, history and tradition. The Living Lab is equipped with safe spaces to experiment with culture in the kitchen, the Food Maker spaces, Tower Gardens and Urban Farmer spaces, which combine artificial intelligence systems, VR, 3D printers and innovative technologies with the study of food and nutrition, raising awareness of a sustainable model of integral ecology and circular living.

Transformative experiences:

- An effective transformation of the educational experience takes place through the different perspectives through which the territory shows itself to the educating community: not only as a place of ancient traditions, but also as an open space

where unprecedented links between environment and innovation can be experienced;

- Prosperity and system thinking spreads and multiplies through the educational process, involving families and communities thanks to the relocation of school learning and the use of common spaces (of all kinds: the village, the technology room, the countryside) in different ways.

The educational model (Massari & Roversi 2023) applied in Pollica has introduced and promoted new paradigms of territorial regeneration based on the principles of the UNESCO Intangible Cultural Heritage of the Mediterranean Diet, as a real tool capable of guiding development policies aimed at protecting resources, enhancing biodiversity, implementing circular models and using food as a tool for inclusion and diplomacy.

- Evidence also shows that the Mediterranean model of integral ecological regeneration introduced by the FFI at the Paideia Campus is a model and a framework. It is not the final goal but a starting point for combining human health and environmental protection, and developing an ecosystem capable of nourishing and regenerating itself. The Future Food Institute, inspired by the 'Mediterranean Diet' cultural framework, created the integral ecological developing tool, a reference model for territorial development and stakeholder engagement, which can also address and be a development driver for Switch 6 hubs.

Figure 1. A Model of Integral Ecological Regeneration (representation created by FFI (Roversi, 2023))



3. SWITCH Actor Engagement Process

This chapter describes the steps of the general SWITCH actor engagement process during the first, initiation of the co-design process that included the Kick-off Meeting in Rome, January 2023, the regular Hub workshops, the actor network inventory and inventory of Hub and regional characteristics.

3.1 Rome Kick-off Meeting

In January 2023, Hubs presented at the SWITCH Kick-off Meeting in Rome their key characteristics, such as the Hub locations, the coordination and innovation of activities, and the stakeholders mapping and engagement. At this meeting, FFI and WU hosted a workshop for SWITCH partners with the aim to facilitate the exchange of perspectives on actor engagement among SWITCH partners and enable ownership for further developing and applying the engagement strategy. It started with introducing actor engagement as a participative, inclusive learning process through which HUB activities are co-created every step of the way. This is a staged process that ranges from no engagement to full control over sustainable food choices.

The importance of engagement was stressed but the difficulties and efforts that need to be made in this direction were also pointed out. For example, obstacles such as:

1. the lack of time and resources, e.g. stakeholder fatigue, stressful timetable, hard deadlines, missing days, stakeholder abandonment;
2. lack of time management with stakeholders, e.g. planning helps, realistic timelines, monitoring;
3. the lack of visibility of the activities: communication must be creative and planned from different angles, e.g. concerning language, media, tools, scenarios, creativities;
4. and a difficult prioritisation: review the plan, iterate the plan, share doubts, use templates, organise ideas, organise activities.

During the first team-exercise, partners identified and collected words that would describe (1) the SWITCH project, and (2), the challenging aspects of engagement, so that a common project's vocabulary/glossary could be defined. Examples of words suggested for (1) were: connected, together, local, co-creation, inclusion, sustainability, healthy; for (2): datalake, models, artificial intelligence, algorithm apps engagement, evidence, harmonisation and indicators. Secondly, participants noted their assets, the superpowers that they perceive as important to the effectiveness of the forthcoming SWITCH activities. The most relevant included: passion, interaction, patience, transdisciplinary, adaptability, synthesis, appetite, thinking differently. Thirdly, participants were asked to divide into 7 groups. Each group was dedicated to study the scenario of a specific stakeholder category, such as Policymakers, Food providers, Food services & hospitality, Education systems, Nutritionists, Healthcare providers, Citizens and general public, Media and journalists, and to use the canvas provided (see **Annex 2**) to collect and map best practices, tools, ideas, doubts. The results of this effort, except for the group 'Citizens and general public', are in **Annex 17**. This last exercise was a perfect example of team-building activity, which allowed the group of partners to get to know themselves better and discuss fundamental contents and goals for

SWITCH. Moreover, it was a method to find a common ground between all the six Food Hubs and WP Leaders.

At the end, each group shared the “5 key findings” with the rest of the participants. Some of the global key findings that emerged are listed below:

- Data platform for the chef and the food guest
- Saving time, economy and make it simple
- Education, practical workshops, knowledge exchange
- To involve all the staff in the restaurant - Team
- Good briefs
- Exchange of information and goals
- Trust-based relationship
- Directly involved in field actions
- Lobbying
- Lack of the time from farmers
- The importance of the public sector

The KoM concluded with a discussion on tailoring the operationalisation of the concept of a ‘Food Hub’ to SWITCH, which converged into a first usable definition already reported in the Grant Agreement, as follows: *It is a city-region as geographical regions that include one or more urban centres and their surroundings, peri-urban and rural hinterland, across which people, food, goods, resources and ecosystem services flow, and encompasses all food system actors and activities over which the local/regional government have planning and intervention powers (FAO, 2021).*

Other results that emerged from the KoM are the need to recognize the regional value (specificities) of the Food Hubs, where the current dietary patterns will be assessed (per different groups, including vulnerable groups); models of sustainable and healthy diets will be proposed; experiment Activities/Innovations (Living Labs = a series of activities in place in the Food Hubs) will be suggested and implemented in the Hubs and see if/what people respond, to understand which are the potential drivers and barriers and measure the achieved shift.

3.2 Actor network analysis

The next engagement activity concerned an analysis of individual Hub leaders' perceptions of the number and strength of the connections that they have with regional actors (i.e., Hub networks). Within Social Network Theory, this is called an ego-network analysis. The number of connections that one individual node - in this case the Hub - has in the network represents its degree centrality (Hanneman and Riddle, 2005), whereas the strength of the connection is represented by the type of collaboration between the Hub leader and the actors (Liu et al., 2017).

For our analyses, the typology of collaboration was based on the framework developed by the Education Development Centre ([Levels of Collaboration \(edc.org\)](https://www.edc.org/)). This non-profit organisation aims to advance education, health and economic opportunities globally.

We adapted the Centre's levels of collaboration framework to indicate the strength of the connection between the Hub and the regional actors, with lower levels of collaboration representing weaker connections and higher levels of collaboration representing stronger connections. Whereas their framework uses four types of collaborations that range from networking (e.g., two actors sharing information) to full collaboration (e.g., actors having formal collaboration agreements), we added a basic level in which the actors know each other but have no collaborations:

1. Connected: Knows the actor but no formal collaboration;
2. Networking: Exchange information, talk with each other for mutual benefit;
3. Cooperation: Support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement;
4. Coordination: Engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole;
5. Full Collaboration: Work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

The mapping of SWITCH Hub connections provides a profile of the current level of Hub connectivity and offers a roadmap that can be used to strengthen and expand existing connections and explore options for collaborating with new actors. It is important to recognize that no single type of collaboration is "better" per se than another. The best type should represent the optimal relationship from the perspectives of both partners, given what the Hub and regional actors aim to achieve. During the SWITCH project, the above listed characteristics will be adjusted to match the insights on how to effectively work together within the Hub regions.

The actor network analysis entailed several steps. First, Hub leaders received instructions and a template (**Annex 3** and **4**) for listing the actors to which they are connected. Second, with the support of a WU affiliated researcher, they indicated the type of connection that they had with each actor. The overview of the networks is included in **Annex 5**. A short analysis of the number and type of actor connections is reported in the Hub fingerprints (**Chapter 4**) as well as reflections on the current network and in which direction they would like to extend or deepen it.

3.3 Hub workshops

In Spring, Summer and Autumn 2023, three workshops provided space for the initiation of the SWITCH co-learning process among partners involved in WP5. This co-learning was facilitated by exercises rooted in the SWITCH theories, as described in Chapter 2. The workshops also enabled Hubs to reflect on their co-design process of activities, share their concerns and needs and indicate potential solutions, while considering the differences in Hub- and regional context.

1st Food Hub Leaders Workshop - May 25th, 2023 (3 hours)

This workshop concerned 1) the state of art of the Hubs with emphasis on what is considered a SWITCH Hub, 2) the first steps in the actor engagement process (D5.1) and 3) the set up of Hub activities (D5.2)⁴.

1) state of the art. Descriptions in the SWITCH project proposal were used to indicate Hub key characteristics, tasks and activities. Firstly, Hubs are characterised by a multidimensional, inclusive and participatory approach, which implies that they use a participatory, co-creation approach to engage actors at multiple levels; provide a -physical/virtual- space for actors to collaboratively innovate new avenues for Hub activities within multiple settings that target multiple dimensions of food: learning about production, selection, cooking, sharing; Hub activities are inclusive and consider socio-cultural and economic access for all. *Key tasks* involve the development, implementation and monitoring of multi-actor, inclusive SWITCH activities through a participatory, co-creative process and use of a digital Hub platform that supports co-creation-, communication- and data collection processes. *Key activities* involved getting to know, connecting to, linking and informing regional actors, co-designing, implementing and monitoring this actor engagement process, retrieving regional information, data collection and storage and the use of digital tools. During the workshop, the Hub members indicated which of these key activities are already part of their regular practices, with the following findings:

- all Hubs have connections with actors, these connections range from knowing (almost all), connecting (all), informing (all), linking (2), designing activities with actors (3) to implementing activities with actors (3).
- 3 Hubs know the marginalised groups within their region and 3 connect with these groups
- all Hubs have access to regional information, with 4 Hubs collect and 2 Hubs storing the information
- 1 Hub uses digital tools
- 1 Hub tracks progress of activities

Hubs expressed that they needed a specific operationalisation, tailored to SWITCH, of the concept of a Food Hub. In response to this, a literature review has been done after the workshop which will be used to further explore the exact definition and operationalisation of SWITCH Hubs (see **Chapter 3.4**).

2) engagement process. During the workshop, the Hubs practised the first step of the actor engagement process (see **Chapter 3**) by indicating the type of connections for a selection of actors. Next, the salutogenic interview method was shared. This method has been developed for the SWITCH project and is based on salutogenic principles (see **Box 1**). Hubs can use it to capture the perspectives of regional actors on the purpose of changing towards more sustainable food (meaning), what sustainable food means (comprehension) and resources they need to participate in this change (actionability).

From the answers, Hubs can extract barriers and opportunities that serve as a starting point for co-designing activities. The method is also a reflective tool that aims to encourage a

⁴Action plans for the specific actions set up in each Hub

shared learning process that promotes strengthening of actor capacities and foster engagement of and between actors. The results of applying this method in Berlin and Sardegna can be found in **Chapter 4** and **Annex 14**.

The proceeding exercise entailed an exploration of two scenarios. First, Hubs responded to the question '*what can happen*' in a (near) perfect situation in which a Hub coordinator feels all is under control. Concerns were expressed in relation to SWITCH external partners, internal partners and circumstances (**Table 1**).

Table 1. Concerns expressed by Hubs

SWITCH internal partners/project	<ul style="list-style-type: none"> ● <i>Lack of time or resources</i>: translation can be time consuming; lack of financial resources to do all the activities ● <i>Outcomes</i>: Results not useful ● <i>Process</i>: No clear and structured info/planning; colleagues leaving the project
External partners (regional actors)	<ul style="list-style-type: none"> ● <i>Engagement challenges</i>: onboarding - it is hard to engage actors and as a result, their engagement is limited; ongoing - actors become less motivated over time; don't participate regularly or leave the project; perception of benefits: Actors don't see the benefit in participating resulting in actors leaving the project ● <i>Lack of representativeness</i>: Some actors are involved but it is hard to get a representation of the whole food system and important actors are missing ● <i>Participatory approach pitfalls</i>: approach is not truly participatory, actors not involved in development of activities
Circumstantial concern:	<ul style="list-style-type: none"> ● Another pandemic

Next, Hubs responded to the question '*how can a situation be improved when many things go wrong*' and a Hub coordinator feels disconnected from the SWITCH project, has no time and budget and actors do not see meaning in engaging (**Table 2**).

Table 2. Opportunities expressed by Hubs

SWITCH internal partners/project	<ul style="list-style-type: none"> ● <i>Implementation of different types of meeting</i>: <ul style="list-style-type: none"> ▫ <i>Regular meetings with WP5</i>: These may have different aims including (a) co-creating, (b) sharing updates & checking-in, (c) thematic meetings on different themes to spark inspiration ▫ <i>Horizontal meetings with other hubs</i>: The purpose is to share advice and experiences and get inspired ▫ One on one talks and coaching between hubs and management ● <i>Project management tweaks</i>: <ul style="list-style-type: none"> ▫ Better communication between management and hubs ▫ Fewer heavy surveys to collect data ▫ Clear timeline/planning including a known and accessible location where it is posted
----------------------------------	--

	<ul style="list-style-type: none"> ▫ Clarity on what is expected: co-creation paired with guidance on process
External partners	<ul style="list-style-type: none"> ● <i>Importance of communication and demonstrating benefits:</i> Ways to do this could be for example: break the silos by inviting them to see what is happening in other hubs) ● Think of alternative ways to implement activities ● <i>Increase exposure:</i> create an event about food with media ● <i>Provide incentives:</i> make incentives for partners in exchange for participating in SWITCH.

3. setup of Hub activities. Hubs were divided into three groups to discuss the activities to develop and implement during the SWITCH Project. Each Hub shared how they would like to consider the criteria derived from the SWITCH project outline:

Three SWITCH change strategy pillars	<ul style="list-style-type: none"> ● <i>Knowledge:</i> increase awareness of healthful, sustainable food choices - what is healthful, sustainable food, who produces it and how and where is it available, with education having a key role ● <i>Accessibility:</i> co-creation of links among actors - farmers, restaurants, canteens, food industry, citizens, retailers, healthcare, social-environmental- economic experts, municipalities, schools, policy makers, national authorities ● <i>Facilitation:</i> minimise obstacles and barriers - related to specific local social, cultural, geographical and economic aspects
Theory based criteria	<ul style="list-style-type: none"> ● <i>Multidimensionality:</i> multi-level strategies, diverse actors in diverse settings, socially embedded (from producing, to processing, provisioning, selecting and consuming food) ● <i>Inclusiveness:</i> social, cultural, physical and economic relevance and accessibility for all ● <i>Participation:</i> meaningful actor engagement and relations, co-design, co-implementation and co-monitoring and -evaluation
Project KPI's	<ul style="list-style-type: none"> ● Food flow: change in visibility, share and labelling of sustainable farming systems local products (specifically seafood) ● Human flow: change of food and eating practices, change in actor connectivity, change in access (specifically marginalised groups) ● Earth flow: change in environmental indicators
Use of technology	<p>SWITCH Digital Hub experience and SWITCH DataLake is fed by:</p> <ul style="list-style-type: none"> ● SWITCH SmartCounter: for shops, markets, restaurants ● SWITCH MyFreshFood: food quality assessment ● SWITCH MySmartFork citizen application ● SWITCH ChefsFork application ● SWITCH Framework application: for policymakers

The exercise brought about the questions that Hubs had regarding the different criteria, for example about what the specific technologies entail, which groups are considered marginalised and how the different key project outcomes will be assessed. After the

workshop, the concerned WP leaders were informed and requested to respond. WP4 members have explored and discussed how to determine people considered marginalised (see Chapter 2.6) and initiated a discussion with WP 2 and 3 leaders about the overall assessment of Hub activity outcomes. **Annex 6** provides all questions and responses derived from this first workshop.

2nd Food Hub Leaders Workshop - July 12th, 2023 (2 hours)

This workshop concerned the process of 1) selecting Hub activities based on the SWITCH criteria and 2) identification of needs to develop, implement and monitor these activities. The Rome, Sardegna, Montpellier and San Sebastian attended this workshop.

1) the workshop started with discussing outstanding issues that emerged from the last workshop, followed by the explanation and application of the Ego-Other-Eco Empathy Model (for description, see chapter 2.1). This model was applied to foster empathy among Hub members and learn how to apply the model within activities with their actors. The first stage concerned the Ego, during which the Hubs went to a self-assessment regarding their intended activities. Sinek's (Sinek, 2016) Golden Circle (see Chapter 2.1 and **Annex 7**) was used to support this self-assessment. Hubs attempted to formulate the WHY (the purpose of a Hub activity), the WHAT (their understanding of results they want to reach with the activity) and the HOW (the process through which they want to reach this result). The Hubs indicated that the Golden Circle exercise was difficult, specifically the formulation of the WHY that were merely about general purposes (e.g. engage actors, provide access) rather than specific to the SWITCH regional Hubs.

2) Hubs*⁵ extracted their needs to be able to select, develop, implement and monitor activities based on their formulated WHY, HOW and WHAT:

- *Human local capital*: Motivated and trained people (R); Facilitator for the planned activity (C)
- *Processes for more collaboration & involvement*: Organisational power to scale up the initiative and involve new groups (M); Smoother communication opportunities (currently, one annual meeting to discuss with members, otherwise initiative is led by few people) (M); Local involvement (R)
- *Internal clarity within SWITCH*: Clear idea of the execution of the activities (timeline) and interactions/overlap inside of SWITCH (R)/ Define SH analysis (C); What we need to monitor? (indicators) (S)
- *Professional guidance*: Guidance on developing sustainable recipes (C)
- *Monetary means*: Financial resources to balance the funds (M)
- *Ability to link activities with SWITCH aims*: Links with SWITCH (S)

The following exercise concerned the 'Others' stage in which Hubs discussed how they can support each other in fulfilling their needs, followed by the ECO phase in which they discussed how to co-learn and arrive at new, effective and successful co-design of Hub activities. However, due to time limitations, this exercise was not completed.

⁵ R = Rome, C = Cagliari-Sardegna, S = San Sebastian, M = Montpellier

The workshop initiated the start of the weekly Hub meetings in which Hub members exchange experiences and questions to foster mutual learning and a sense of togetherness.

3rd Food Hub Leaders Workshop - September 13th, 2023 (2 hours)

The third workshop was prepared by Hub and WU representatives and aimed to discuss the following key questions related to actor engagement and to SWITCH in general:

1. *What is a SWITCH Hub?* The insights from the literature exploration (see Chapter 2.4) and input from Hubs were used to start a discussion on what defines a SWITCH Hub. Conceptual differences in defining food hubs (space where food related activities are done) and living labs (co design, co-develop, co-produce approach) create unclarity about the roles and activities of SWITCH Hubs. In addition, differences in focus and resources available within Hubs (e.g. key type of actors, having a physical space or not), require a flexible rather than a fixed description of SWITCH Hubs. Following recent insights from other projects and literature, SWITCH Hubs can be defined by a set of core features rather than a definition.
2. *What are characteristics of Hub activities?* A first set of characteristics were shared: a) a mixture of change strategies (knowledge, access, facilitation); b) target a range of food system actors, with specific attention to people considered vulnerable/marginalised; c) KPI-driven: centralise visibility, labelling, production, provisioning and consumption of healthful, sustainable regional food; d) theory-informed an ecological, salutogenic, approach that supports actors in developing meaning, comprehension and action; Practical aspects included activity duration, timing and frequency, which is context-specific and will be set spring 2023, Task 5.2. The same applies for identifying activities that can be applied at multiple Hubs.
3. *What does the SWITCH actor engagement process entail?* A presentation was created to provide an opportunity for project members to check-in on the process and to give the hubs a tool and format to develop their co-design/co-creation process with their local food actors (**Annex 9**). The presentation included a pre-actor engagement checklist, inspiration on the why's of co-design, as well as an example of co-design steps, workshop ideas and resources to find co-design tools and spark creativity.
4. *How are scientific WP findings integrated in Hubs and Hub activities?* To facilitate mutual understanding and collaboration, the Hubs have created a template in which each WP notes their current activities, tasks for Hubs and questions to be discussed during the weekly Hub meetings.
5. *What is the status of the assessment framework for Hub activities?* WP2, 3 and 4 prepare a draft overview of food, environmental and social indicators that will be discussed with Hubs at the end of 2023 and be tailored to Hub activities in the next phase (Task 5.2). The first step of the WP4 realist assessment starts with an inventory on Hub- and regional characteristics (findings reported in Chapter 4).

The workshop provided space for co-learning on how to describe SWITCH Food Hubs, the upcoming tasks regarding activity development and the alignment between SWITCH WP's.

Based on the insights, several initiatives have started: developing a Manifesto and visualisation that presents the outline, approach and structure of SWITCH and exchange of WP tasks during the weekly Hub meetings (see Chapter 5. Conclusions),

3.4 Literature review: operationalising Food Hubs

Following the initial Hub Leader workshop, WU conducted a brief analysis of the similarities and distinctions between the ideas of "food hubs" and "living labs," as well as the defining characteristics of the SWITCH Hubs.

SWITCH is at the intersection of the 'living lab' and the 'food hub' concept which are at the core of the project. Specifying the concept of Food Hubs within SWITCH is a process that evolves alongside the actor engagement process. The following section is a starting point for further exploration.

Living labs

Living labs are ever-changing, dynamic entities which are integrated in the existing social environment (McCrorry et al., 2020). Sustainability-oriented labs have been conceptualised differently based on their approach as 'living labs', 'urban living labs', 'urban transition labs', 'change labs', 'transformation labs' or 'evolutionary learning labs' (McCrorry et al., 2020). Factors such as the starting point of the lab (e.g. starting from needs or from a problem assessment), the framing of the problem and the constructs they are anchored in determine the adopted lab orientation (McCrorry et al., 2020). Urban living labs are an example of labs which build on existing structures as a starting point and are a subtype of real-world labs. In all cases, the definition of sustainability within environmentally-oriented labs needs to be negotiated within the context of each lab (McCrorry et al., 2020).

While living labs may take distinct forms, consistent characteristics and processes can be extracted across various settings. Braathen et al. (2021) conducted a literature review about the nature and terminology surrounding living labs. According to the authors, the commonality surrounding living labs is that they "embody real-life, experimental co-production of knowledge" (p.10) and are anchored in a process of innovation through multi-stakeholder initiatives aiming to deliver inventive solutions to a specific issue (Hossain et al., 2018). Bukeley et al. (2016) further discuss the specific concept of Urban Living Labs as innovation forums focused on engaging users as co-creators throughout the development of new solutions. The innovation process includes different phases such as exploration, experimentation, testing and evaluation in real-life settings. Based on Hossain et al. (2018), activities of living labs can be loosely categorised as building upon existing systems (exploitation) and generating new knowledge (exploration) (Braathen et al., 2021). Exploring new ideas is an output that can emerge as a process and result of living labs through multi-actor engagement. To summarise, while there is no clear definition of what a living lab is, living labs usually integrate a set of core features (Radulescu., 2023; Schöpke et al. 2018). These include an *infrastructure* that stimulates experimentation; *process quality* (i.e.. the involvement of multiple stakeholders; co-creation); an *output* (i.e.: an innovative product, idea etc.); *output/process quality* (a type of learning from the process and the output). The process of change towards innovation, including the types of actors involved, is influenced by the already existing power dynamics.

The representation of different groups of actors is therefore either a continuation or a challenge to existing systems of power depending on who participates (McCrorry et al. 2020). In some cases, living labs become spaces where science and practice meet, providing both a setting for change processes, the implementation of interventions, and a space for analysing mechanisms of change (McCrorry et al. 2020).. These mechanisms are fundamental to the lab that the process of the living lab itself is a mechanism of change.

Food Hubs

Similarly to living labs, the function and definition of a food hub varies based on its objectives and exists on a continuum (Levkoe et al., 2018). While the function of a food hub, according to the USDA, is to facilitate the dissemination and promotion of regional and local food to the general market, in reality its activities may encompass a broader range of social and economic dimensions related to food systems and equity (Levkoe et al., 2018). This type of food hub is referred to as a sustainability/community-based food hub which aims to build a more sustainable food system while promoting social aims and increasing food and nutrition security through local food access (Manikas, et al. 2019). A more holistic definition refers to food hubs as “networks and interactions of grassroots, community-based organisations and individuals that work together to build increasingly socially just, economically robust and ecologically sound food systems that connect farmers with customers as directly as possible.” (Blay-Palmer et al., 2013, p. 524). These improvements in the food system are achieved by increasing food security and access to culturally-appropriate and healthy food, endorsing environmentally friendly practices, putting communities in charge of their own decisions, and providing economic benefits such as job creation and local food purchases (Levkoe et al., 2018). The definition further includes the primary goal of connecting local food production, actors and consumers but adds the dimension of multi-stakeholder collaboration driven towards common sustainability goals.

SWITCH Food Hub concept

The food hub concept in SWITCH is at a crossroad between a living lab and a food hub. Food hubs within the SWITCH project embody both the idea of a living lab and a food innovation hub by:

- engaging a wide range of actors who innovate together to find new avenues for actions around critical systemic issues;
- building activities that evolve and are dynamic based on the feedback loops and evaluation of the actions;
- giving specific attention needs to be given to the context in which participants are included as put forward by McCrorry (2020);
- helping people connect to their local food systems while at the same time looking out for virtuous community improvements such as economic benefits and social justice through the inclusion of marginalised groups

These characteristics will evolve as the co-design and project progresses.

3.5 Inventories of Hub and Hub regional characteristics, barriers and opportunities for engagement

Between June and November, Hubs have collected perspectives of Hub members and actors within their region to create a fingerprint of the regional- and Hub characteristics, the actor network and perceived opportunities and barriers to food system change. Two methods have been applied. Firstly, each Hub has used the protocol for Hub inventories that has been compiled for WP 4 and 5 (see report D4.1, **Table 3** for overview and **Annex 10** for the full protocol). The inventories serve multiple aims:

- 1) captures the context in which Hubs shape their actor engagement process;
- 2) facilitates common understanding between SWITCH Work Packages;
- 3) facilitates the co-creation process as Hubs have a better ideas of the local opportunities and barriers;
- 4) builds and invests in mutual relationships between Hubs and their actors.

Inventory consists of two parts:

- 1) **getting to know the Hubs.** This includes all distinguishing characteristics that describe the Hub (people, visions, experiences, network etc). This information will be collected by interviewing Hub members.
- 2) **getting to know the local region.** This includes all distinguishing characteristics in the local region. This information will be collected by interviewing the Hub members, but also other local food actors in the region, and desk research. A *quantitative* context analysis of the regions will be conducted by WP2 and WP3. WP2 will conduct a regional and European analysis of local demographics (population age, health, etc), food systems and consumption patterns. WP3 investigates the diets and consumption patterns in the different regions. In the end, the results of our qualitative context analysis will be combined with the *quantitative* context analysis to create an in-depth overview of the context where the Hub activities will take place.

Second, the Sardegna and Berlin Hubs have applied the Salutogenic Food Story method that investigates actors' perceived meaning, understanding and actionability regarding engagement in food system change (see also 2.3 - workshop 1). This method is based on salutogenic principles and intends to capture the actor's perspectives, encourage a shared learning process that promotes strengthening of actor capacities and foster engagement of and between actors (see **Table 4** for overview and **Annex 11** for the full protocol). The insights derived from these methods are reported in **Chapter 4**.

Table 3. Topics protocol Hub inventories

Part	Topic
Regional fingerprint	what is the city-region and Hub area of influence
	(food related) health issues
	characteristics of the social and physical environment

	regional food culture and system
	people considered marginalised
Hub fingerprint	who they are role in SWITCH their meaning, management, action
	what they are doing/planning to do
Actor network	actor network connectivity
Barriers and opportunities for change*	resources needed/lacking in general (barriers)
	resources to be provided by SWITCH (opportunities)
	resources available (opportunities)

*barriers and opportunities can take shape in multiple forms and include practical skills, capacity (e.g. time), knowledge, motivation, passion and interest for change, economic resources, physical-environmental resources (e.g. buildings, green or blue space), networks and connections

Table 4. Salutogenic Interview guide

<ul style="list-style-type: none"> • Can you think back to a significant experience you had that made you reflect about sustainable food? • Can you think back to a moment in which sustainability more in general assumed relevance or a new meaning for you?
<ul style="list-style-type: none"> • What is to you the purpose of changing towards more sustainable food in your region? (<i>Me</i>) • What do you find meaningful, important, beautiful/inspiring, valuable about this transition towards more sustainable food in Sardinia? (<i>Meaningfulness/Motivation</i>)
<ul style="list-style-type: none"> • What does “sustainable food” mean to you? What 5 keywords come to mind when you think about sustainable food? (<i>Comprehensibility/Understanding</i>)
<ul style="list-style-type: none"> • Which resources do you need to participate in this change towards more sustainable food in your region? (<i>Manageability/Actionability</i>)

3.6 Actors to be engaged in SWITCH Hub activities

SWITCH aims for ‘sustainable, healthful food for all’ which implies that Hubs involve a wide range of actors within the food system, with particular emphasis on groups considered marginalised and the groups that are listed in the expected outcomes and key project indicators. The Hub activities will specifically aim to engage actors who are considered marginalised in order to reduce societal inequalities (e.g. health inequalities). Those actors belong to groups or communities that are unable to engage in sustainable, healthful food practices due to certain characteristics:

- socio-cultural: e.g. gender (e.g., female farmers most often earn less in many countries), belonging to an ethnic minority, people feeling socially isolated (e.g. elderly)
- economic: living in poverty, resource-poor, e.g., single parent families without income or a small farmer without access to the market
- physical: e.g., people living with disabilities yet also older people who are unable to take care of their own food and depend on caretakers, ready-meals etc.
- medical: e.g., people living with a chronic disease that limits their capacity to change because coping with the disease takes all their (mental) energy

In addition, there is the nutrition approach that identifies characteristics of groups that are vulnerable in relation to food due to:

- due to having a food-related illness or for proper growth (life stage) or specific life events (e.g., pregnancy)
- those at most distance from the recommended diets

The above listed characteristics often intersect (Malapit et. al., 2020), leading to those groups most relevant to include in Hub activities. For instance, young children in deprived areas can be engaged through school activities, co-designed by the school chef, a farm, a nutritionist and the local organic shop. Another example is to engage a local farmer and chef to design a 'cook-it' activity for people with food related chronic illnesses. At the start of the project, the Hubs have created an inventory of their current connections with actors and indicated the type of connection (see 3.2 Actor Network Analysis). This inventory serves as a tool to reflect on options for strengthening and expanding existing connections and for collaborating with new actors for the co-design of their activities. The Hub fingerprints (**Chapter 4**) include first reflections of Hubs on groups considered marginalised present in their regions and to consider for inclusion in their activities. The further specification of groups is part of the next stage of actor engagement and will be done in alignment with the vulnerability assessment of WP4.

4. SWITCH fingerprint profiles: the region, the Hubs, the network and perceived barriers and opportunities

In this chapter, the SWITCH Hubs present their fingerprint profiles that are compiled based on mixed methods including talks, interviews, events and workshops. The profiles describe characteristics of the Hubs and its members, the regional actor network and opportunities and barriers for further actor engagement.

4.1 Hub 1. Rome and Lazio region (Italy)

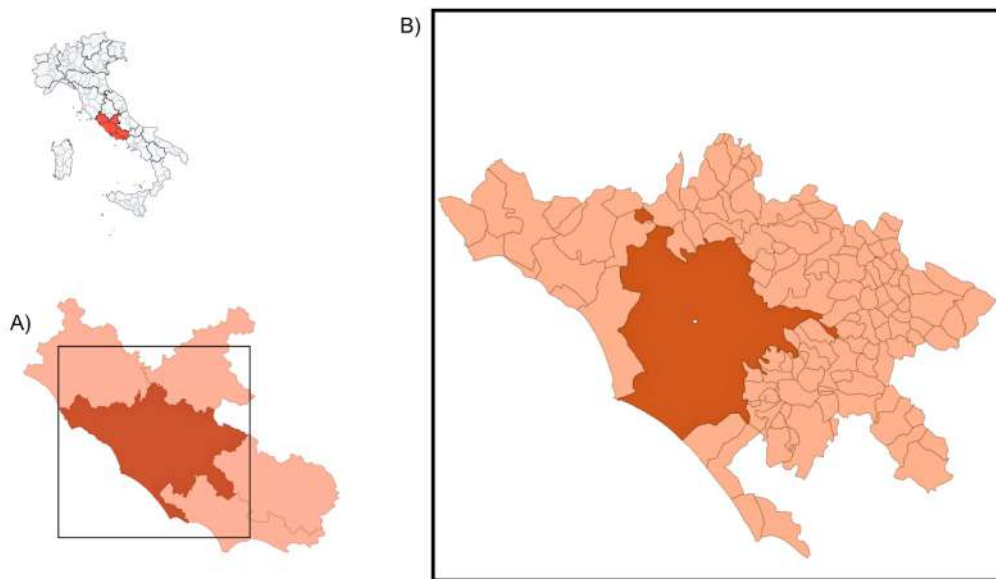
Regional profile

Rome and Lazio region is one of the two Italian city-region food systems chosen for the SWITCH project activities. It is located in the central part of Italy (Fig. 1) and covers an area of 17,235.97 km². The region hosts around 5.9 million people. Most of the population (more

than 4 million people) is concentrated in Rome Metropolis (*Città Metropolitana di Roma*; Fig. 2A) an area that covers 5,363.22 km² (1/3 of Lazio region surface) and hosts 120 municipalities. From an administrative point of view, the city of Rome (1,287 km²; Fig. 2B) is the capital of both the Lazio region and the Rome Metropolis. The city alone hosts around 2.8 million people, making it the most populous city in Italy.

Considering its extension, the maximum area of influence of the Hub is limited to Rome Metropolis and it's more likely that SWITCH-related activities will be implemented in this area.

Figure 2. Rome & Lazio Region. A) Lazio region with the area of the Rome Metropolis in a darker colour; B) Rome Metropolis. Rome's surface is in a darker colour.



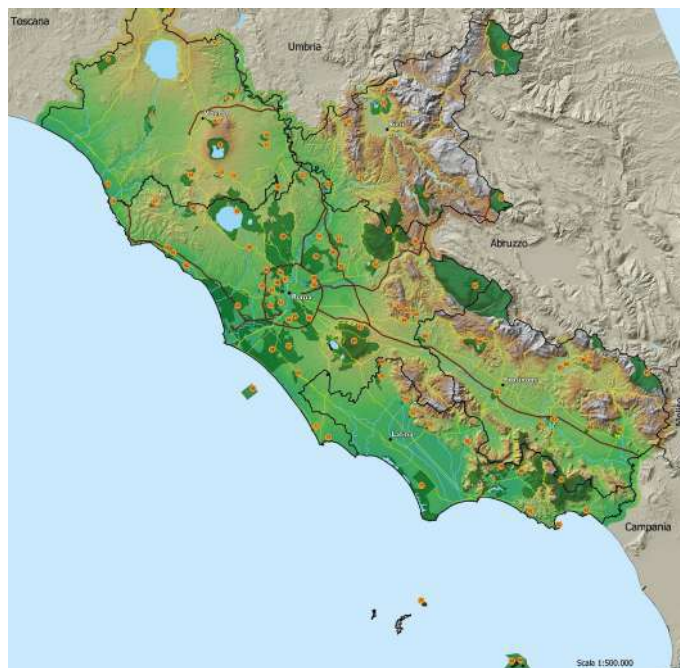
From a morphological point of view, Lazio region has a very diverse landscape (Fig. 3). It is characterised by a coastal plain, an hilly inland and the Apennines mountains located at the regional borders. The coastal plain, adjacent to the Tyrrhenian Sea, shaped by the main rivers (e.g., Tiber) is composed of 3 well-known areas: *Maremma Laziale*, *Agro Romano* and *Agro Pontino*. The hilly inland hosts the main lakes (Bolsena and Bracciano) and other minor ones. The landscape is typically drawn by olive groves, vineyards, cereals and pastures.

Figure 3. Landscape characteristics. Morphological (on the right) and land use characteristics of Lazio region.



The region is home to a mix of urban and rural communities (Fig. 4). It is well known for its very ancient anthropization which is most preserved in the inner areas and has changed a lot in the urban centres. In this context Rome represents the biggest urban pole around which all the provinces and small cities converge. Despite this the region hosts many protected areas (e.g. natural reserves and parks); only the Rome Metropolis hosts 41 of them (a total of 535,253 ha; Fig. 4).

Figure 4. Natural reserves and parks in Lazio region (indicated by numbers and dark green areas)



The regional population includes not only Italian citizens but also people from various countries, contributing to the regional cultural diversity. Non-native inhabitants population in Lazio represents 10.8 % of the total population. Over 80% of non-native inhabitants reside in the Rome Metropolis (in Rome they represent 11.8 % of the resident population). Non-native inhabitants are mainly from Romania (31.8 %, Lazio region; 22.1 %, Rome),

Philippines (6.9 %, Lazio region; 11.4 %, Rome) and Bangladesh (6.5%, Lazio region; 9.7 % Rome).

In terms of age demographics, the population is ageing. The most populous age class in Rome and Lazio region is the one between 45 and 60 yrs, with an average age of 46 yrs. Non-native inhabitants are usually represented by younger age classes. Life-expectancy is around 80.9 yrs for men and 85.3 yrs for women (almost the same in Rome).

Concerning the education level, illiterates and alphabets without a qualification represent 3.8% of residents (3.6 % in Rome); 11.8% have completed only the primary school (10.7 % in Rome), 25.2% have a middle school qualification (23.9 % in Rome), 39.3% have a secondary school or professional qualification (39.8 % in Rome), 19.9% have a university degree (21.9 % in Rome which hosts many universities).

The working population is composed of 2.6 million people at the regional level. The employment rate is around 46.2 % (54.1 % for men and 39 % for women) in the Lazio region and 47.3 % (54.6 % for men and 40.7 % for women) in Rome. Of the non-working population, around 1 million people are retired, 572 thousand people are involved in house caring activities and 413 thousand are students. There's still a strong gender gap with only 44.4 % of women working against 60.1 % of men. This gap is even more evident in the non-native inhabitants population.

The regional incidence of relative poverty is 10.2 % for individuals and 7.3 % for families. Regional average income is around 24,350 euros (28,646 euros in Rome). The general perception is that poverty is increasing and the current economic crisis is making the situation worse. Agro Camera monitored prices during and after the pandemics and observed that people are suffering from price increases. In the last year food prices increased by about 10% with great consequences on food accessibility. Rome is getting full of discounters and people are trying to save money not by giving up the quantity but the quality of food.

Regarding health status, the main issues are related to the so-called “diseases of affluence”. Excessive consumption of food, especially low quality one, combined with a decrease in physical activity lead to an increase of cardiovascular diseases, metabolic disorders and weight problems. Lazio region is among the Italian regions with the highest rate of obesity (regional rate is around 9.8 %) and overweight (overweight rate of 31.7 %). This phenomenon is also increasing in the younger age groups. The latter are also increasingly subject to the onset of eating disorders.

The general perception is that awareness about sustainability and health is increasing. Of these two concepts, health has even more effect on people. This is also why there was a sharp increase in the consumption of organic foods a few years ago. However, due to recent events, interest in environmental problems is also increasing and people are starting to wonder what can be done.

Concerning people's attention on sustainability, in January 2023 the Hub conducted a survey (IXE report, 2023) on 1008 people from Rome Metropolis. Results show that there's a high perception of the importance of the environmental situation (96 %), mainly between the younger generation.

People recognize that the current system is facing a crisis but they are also pessimistic about the success of a sustainable system. That is mainly agreed by the older age classes.

Despite that, there's a general perception that the industries and transportation sector are the major causes of environmental problems while the energy sector and the agriculture activities are listed at the bottom. Talking about political priorities linked to sustainability, people indicated energy, health and education as the most important ones. Only one third of them indicated themes like the fight against climate change, sustainable development systems and sustainable mobility.

For what concerns food purchases, 93% of the citizens regularly put into practice at least one sustainable behaviour. First of all, 3 out of 4 respondents said they were avoiding unnecessary purchases. There is also a widespread focus on the theme of packaging: 55% prefer products with little packaging, 51% have increased the purchase of sustainable packaging and 45% have reduced plastic (not recycled).

Concerning products, only 36% buy products made with sustainable methods, 35% prefer the Km0 and 29% organic products. Even the purchase of food without containers is not frequent (29%). Most of these behaviours are found between women and older people.

The main motivation behind a sustainable lifestyle is the sense of responsibility towards future generations (indicated by 58%, particularly by over 55). 44% are motivated by evidence of environmental imbalances (mainly under 24 and the most educated ones) and 37% by a general love for nature and animals. A third of citizens, especially the youngest, feel a moral and ethical duty, while only 16% act sustainably under regulatory constraints.

Food consumption is indicated by 86% as a field in which people act as a sustainable choice in everyday life. Despite that, results indicate that people purchase food mainly in large-scale retailers (50% in large supermarkets and 46% in small supermarkets).

Other purchasing channels indicated by over a third of consumers are:

- specialised shops, most frequently mentioned by women and individuals of middle age;
- discounters, mostly by young people, by those with poor economic conditions and by the ones that live outside the city centre;
- local and farmers markets, mostly by women, over 65 and residents of the province;
- small neighbourhood groceries, mostly by under 24 and residents of the province.

Among the other less relevant purchasing channels is listed the online purchase (15% of consumers). Only 8% purchase food directly from producers. Purchases are more influenced by the economic factor (42%, mainly the younger who wants to save money), frequently combined with quality (value for money, 68%). Mostly over 65 and people with higher education and higher income, indicated that is also important where the raw materials come from. Sustainability is indicated at the bottom, mainly by under 34.

Even if people indicated a good knowledge of general terms such as global warming, sustainability and ecological transition, they also indicated a lack of information on food sustainability: only 17% believe they have all the necessary information, while the majority (55%) would like to know more and more than a quarter of citizens (28%) considers that the information is insufficient to assess the sustainability of the products purchased.

Food system and food culture characteristics

Regional climate and morphology allows for a high agricultural activity. This is characterised by a high diversity in the presence of endless productive niches. For example there is a small inland village, Valle Pietra, which has six species of typical legumes. Their production remains limited to this small ecosystem. Furthermore, it is common for the production of various products to be concentrated in a single area. So in a limited area it is possible to find for example milk and cheese from different animals, honey and a variety of crops. Thinking about what a human being needs to introduce in a healthy diet, the Lazio region can potentially provide everything.

Concerning food flow, Rome is the largest centre of food consumption in Italy and so in the Lazio region. Considering tourists and people who work in the city, the amount of people who eat every day in Rome is around 5 million people, twice the resident population. It follows that the surrounding production system is not able to guarantee a sufficient level of supply. On the one hand it is unthinkable that the farmland and activities near Rome can produce so much food to feed the amount of people that eat in Rome every day. At the same time, the productive activities around Rome are not necessarily oriented towards Rome for sale. Sometimes it is more profitable to export the product. To ensure the supply of the city, the public system has spent hundreds of millions of euros for a food distribution pole right outside Rome (*Centro Agroalimentare di Roma, CAR*). It provides vegetables, fruit, meat, fish and recently also food preparations for catering. This system is perfectly capable of compensating each request but to do so it often favours production systems other than the local one. Consequently Rome consumes many foods that come from the rest of the world, not only from other parts of Italy.

On the other hand, in Rome there is a high consumption of fresh food (vegetables, fruits but also meat and milk derivatives). This is supported by the network of 144 local markets (located in different neighbourhoods) which provide a short chain distribution system inside the city. Here, producers not only sell their products but can also tell a story about it. During a project in farmers' markets, Agro Camera observed that people establish a relationship of trust with the producer and this is destined to remain constant over time. Currently, the markets are frequented only by some segments of the population (especially elderly people) due to the opening hours but there is greater attention from some institutions. For example the seventh municipality of Rome is interested in promoting a market; a kitchen school's teacher has some ideas for promoting local products within markets. Considering the amount of people who reach the city every day, Rome offers numerous services that provide food of every kind at any moment. Food quality is very heterogeneous and it is not always easy to recognize local food and sustainable products as it is not mandatory to provide information on food in restaurants.

There is still a strong cultural identity and gastronomic tradition with around 300 specialties and 70-80 typical recipes. Regional cuisine is strongly connected with local history and traditions. In general, it is made with simple products, with great attention to waste. For example some famous recipes are made with the so called "quinto-quarto", animal parts that are usually discarded. Or some of the traditional recipes in the Ciociaria area as the "*minestra con pane sotto*", a soup made with stale bread and vegetables.

The regional cuisine is also characterised by inclusiveness. Italy is the country of hospitality and the Lazio region was a crossroads for numerous populations. Thinking about Rome, being an international city for centuries it hosted different gastronomic cultures. The most common example is the Jewish-Roman cuisine (Jewish cuisine), which is actually almost older than Roman cuisine as it dates back to before Christ. It still exists with its own raw materials and its menus. Finally, in recent years it is possible to observe great liveliness of groups with different ethnic backgrounds that also have their own specialties and typical recipes.

Traditional food is kept alive mainly by restaurants. Because of the rhythms of life, it is increasingly difficult to find those who have time to cook traditional dishes at home. In Rome Hub they say that “Foods that require more than 30 minutes to be prepared are no longer bought”. This is also linked to the gradual loss of the ability to choose and prepare certain foods. For example, many do not know how to clean some vegetables or are not able to diversify their diet. This has an impact on the way people shop. For example, they look for vegetables that are already clean or they only buy one specific fish or meat. In line with this, a recent study based on interviews in schools have shown that the youngest are no longer following the Mediterranean diet.

People considered vulnerable and marginalised

People with economic problems were listed by almost all the actors as vulnerable and marginalised. Economic status is the major factor limiting food access. Between them there are elderly, people who lost their jobs and those who have low incomes. Also people with low education levels. On one hand, they cannot access some information. On the other hand, they usually do more tiring and lower paid jobs which lead them to buy lower quality food. Some actors listed children and younger as vulnerable groups. On one hand because what they eat will have a strong impact on their future development and on the other hand because they are victims of marketing (for example fast foods and supermarkets' advertising campaigns). Finally, people with disabilities (e.g. autism) are marginalised as often little consideration by institutions. For what concerns the production side, it was highlighted that also small producers and small businesses can be vulnerable categories. Considering climate change effects and price increases they are facing a crisis and some were forced to close their businesses.

The Hub's characteristics and ambitions:

The Rome and Lazio region Hub is represented by Agro Camera, a private company whose mission is to promote and value the agri-food sector in Rome Metropolis. They strongly support fresh, local and seasonal products as they believe in positive effects on people and on the environment. The Hub is located in the heart of Rome. It has two offices, one of which is open to the public and can host events and conferences (**Fig. 5**).

Figure 5. "Centro Servizi Roma in Campagna". Agro Camera's physical space in which it is possible to host meetings and workshops (as you can see on the top).



The Hub team is composed of 9 people that have very different backgrounds but work in the food system for a long time. Seven of them work continuously on SWITCH. Carlo Hausmann is the general director of Agro Camera; Silvia Paolini is the project manager together with William Loria who is also the quality coordinator. Cristina Ugolini is the general affairs coordinator. Donatella Leotta and Giacomo Peroni are project assistants and Riccardo Rubin is the administrative manager.

Since 1992, Agro Camera has been the Special Agency of Rome's Chamber of Commerce, a public institution. For this reason it can be defined as a top-down Hub. In accordance with its mission, Agro Camera plans and implements activities to support virtuous companies and people within the agricultural and agri-food sector. In addition, it manages the Commodity Exchange and cooperates with Associations, Institutions and Administrations for the improvement of the agricultural system.

Activities promoted by Agro Camera focus on different aspects of agriculture and agri-food systems: agro-environment and biodiversity, social aspects (e.g. promotion of social agriculture), tourism (e.g. agritourism) and education (e.g. *fattorie didattiche*). For example they have a long history of activities that aim at bringing both environmental and food education in schools. They manage a website (<https://www.romaincampagna.it/>) which promotes activities and places to visit in the Rome countryside. Furthermore, they are involved in food certification projects with the aim of protecting food diversity and quality. More details on specific activities they carried/are carrying on can be found in **Table 5**.

Table 5. Past and ongoing activities.

Activity	Aim/Description
<i>Origine Comune and DECO</i> (Municipal Denomination)	Create formal list of typical food to protect diversity, quality of agri-food products, value Lazio Municipalities' agri-food production.
<i>Concorsi Premio Roma</i>	Competitions on specific products that aim to support producers and increasing their visibility.
<i>Roma in Campagna</i>	Website that aims to collect and increase visibility of available resources in Rome's field (e.g. themed itineraries, farm holidays, typical products, and traditional recipes)
<i>Roma in Food</i>	Website where consumers could directly buy quality food products from local producers, including local food and artisanal products. Cooking tutorials were also available.
<i>Centro Servizi Roma in Campagna, formerly Centro Servizi per i Prodotti Tipici e Tradizionali – CSTT</i>	Physical space acting as a showroom for local quality food products, for professional presentation of local agri-food excellences and numerous activities focused on territories of the countryside around Rome. Connected to website presenting typical products by category (product description, producers with their contact, location) by seasonal offer and by gift options. Includes game section that aims to share knowledge about food.
<i>La Campagna in Città</i>	Festival to celebrate the Roman countryside, consisted of markets, Rome farms exhibitions, educational workshops for children, food tasting, and cultural events
<i>Cibo dell'Accoglienza</i>	2016 Jubilee. Tourists and pilgrims were able to buy typical local food products in the main city museums.
<i>Maker Faire</i>	Innovation Fair – they organised the food innovation part
<i>Nutri il tuo futuro II edizione</i>	4 videos involving children in preparing traditional food recipes together with starred chef to value culture of local food products.
<i>Grandi piatti per piccoli palati</i>	Recipe book with traditional Rome recipes adapted to the tastes of children by local chefs
<i>A tavola con le stelle del Lazio</i>	2015 Expo. Starred chefs from Lazio region cooked local excellence food products for making them known to the public through their recipes
<i>Food innovation hub</i>	Ready-to-use sauces based on recovered fish
<i>Albo dei produttori in Vendita Diretta</i>	In 2003 was realised the Register of Agricultural Producers
<i>Latte nelle scuole</i> (Milk in schools)	Food education project on the consumption of milk and dairy products for primary school students, financed by the European Union
<i>La salute a capotavola</i>	Brochure on nutritional advices created with the support of nutrition experts dedicated to children
Classes with hotel institutes/starred chefs" & Workshops Hotel Institutes, students/teachers on sustainable food	Training courses for professional schools involving university professors, technicians and chefs
Breakfast Roma	Connect local producers and hotels to value local products for breakfast
Books and brochures	Collection of cookbooks available both in paper and in pdf format
Agri-food strategic plan of Rome	Valorisation of agri-food chain in Rome involving policymakers

SWITCH is completely aligned with Agro Camera's values and mission and it can be a great opportunity to improve Hub's actions. One of their main ambitions is to find a way to reach consumers. Even if there's more attention on environmental problems and sustainability, people are still confused about what really is sustainable. This is connected both to the lack of information about specific products and to the incorrect communication on these themes. On the other hand, it is also hard for producers to access this kind of information. In this sense SWITCH represents a great opportunity as it can provide scientific support and credible information both for consumers and producers. Another ambition is to recover and value some of the local markets in the city with the aim of promoting local food purchasing. They have contacts with policymakers interested in this activity and they would like to include it in SWITCH. Finally, they would like to strengthen some activities they already do, such as food education in schools and data collection among consumers.

One thing that really scares the Hub is not being able to manage all the things that will come out from actors' engagement. The region is full of people that want to change and the Hub does not want to disappoint them once they are included in the activities. They will need support from the project, mainly people who will help them facing potential challenges and doubts.

Until now the Hub had the opportunity to present the SWITCH project and collect some information about people's food consumption habits during two events: a farmers market fair (i.e. *Villaggio Coldiretti* from 13th to 15th of October) and an innovations fair (i.e. *Maker Faire*, from 20th to 22nd of October). It was a great opportunity to meet consumers and citizens and talk with them. They also hosted and will continue to host a series of workshops for food journalists about sustainability and short production chains.

The actor network

Being part of Rome's Chamber of commerce the Hub's network is potentially composed of around thirty thousand companies that operate in Rome and Lazio region's food system. It is obvious that the Hub does not work directly with all of them.

The Hub's network is composed of different kinds of actors, each one with a specific role and impact on the food system. Usually links are established during specific events or activities organised by Agro Camera. Some of the connections remain stable only for the duration of a specific event (for example a fair). Others can remain stable and/or start a domino effect, as food system actors, more than others, are connected with each other. They are experiencing this also in the process of actor engagement for the SWITCH project. Some of the actors contacted until now, provided us with new contacts from his/her network that are also new to the Hub network.

At the start of the SWITCH project (February 2023), the Hub leader created an inventory of the actors within the **Agro Camera** network and the type of connection they perceived having with network members. A total of **19** food system actors were indicated. The largest category was made up by **policy makers** and **food national competent authorities** (47.4 %) and the smallest ones by **food services & hospitality** (0%), **citizens & general public** (0%), **media & journalists** (0%) (see **Table 1, Annex 5**)

The Hub leader perceived most actor connections as characterised by **Cooperation** followed by **Networking** and **Coordination**. The actors that **Agro Camera** fully collaborates with are Rome Chamber of commerce, Rieti and Viterbo Chamber of commerce and Lazio Innova.

During the past months, the network of the Hub has changed, resulting in **82** food system actors in **October 2023** (see **Table 2, Annex 5**). The largest increase was made up by **food providers** and **policy makers and food national competent authorities**. The new network came from Hub brainstorming about which actors in their network could be resources for the SWITCH project. Some actors were added as the Hub knew them during recent events they participated in. This is the case of some food providers that we had the opportunity to know and interview during an agricultural event organised by a big organisation which is in the Hub network as well. They started new activities such as the series of workshops for food journalists (started in October 2023) that let them meet new actors. In other cases, large increases were due to the presence of more than one person of the same organisation (for example different university members).

Concerning the network, it has a large proportion of policy makers and big organisations which is positive as they can have a great impact on food systems. However there is a lack in citizens and consumers that the Hub wants to engage with. Finally, concerning food providers there's still a lack of fishermen and seafood providers.

Opportunities and barriers for healthy and sustainable eating

Figure 6 represents the set of Barriers and Opportunities for healthy and sustainable eating in Hub 1. Most of the information comes from interviews conducted between September 19 and November 9, 2023. The rest of the information is derived from events where interactions with various individuals took place (Table 6).

Table 6. Activities through which barriers and opportunities were investigated.

Activity	When	What
Interviews	19/9-8/10 2023	Interviews with food system actors to investigate Hub context, barriers and opportunities
Workshop with food journalists	11/10 2023	Participants shared knowledge, motivation, barriers and opportunities using an Ego-Eco Empathy model approach. This was the first of a series of training meetings on short supply chains and food sustainability.
Farmers market fair (i.e. Villaggio Coldiretti)	13-15/10 2023	Agro Camera had the opportunity to collect data on people's consumption habits and food sustainability perception
Innovations fair (i.e. Maker faire)	20-22/10 2023	Agro Camera as Hub of Rome and Lazio region introduced SWITCH, interacted with visitors and collected data about food consumption habits and food sustainability perception.

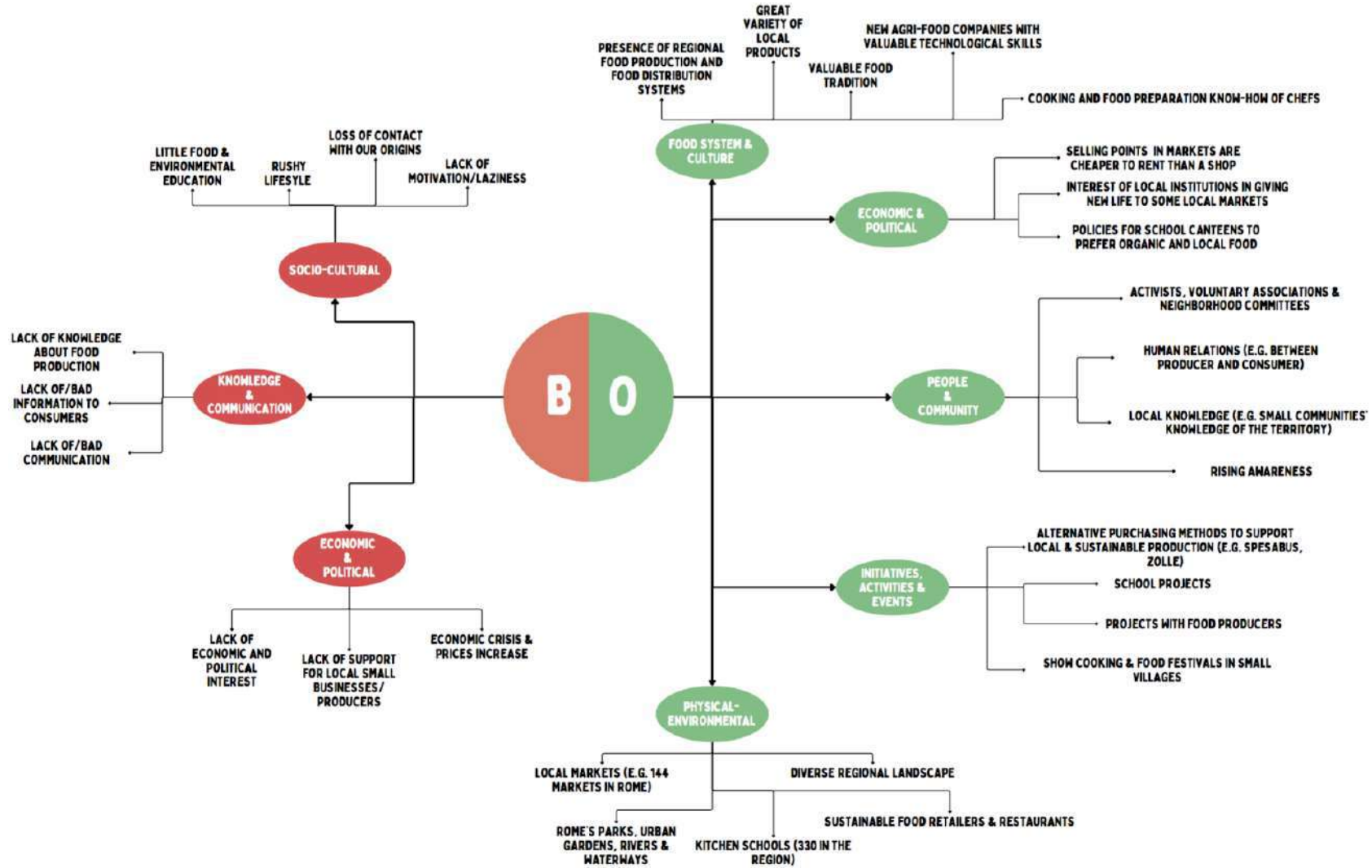
As we can see in **Figure 6**, barriers and opportunities were classified in groups. Concerning barriers, they were classified in three groups:

- Socio-Cultural Barriers: Societal norms, cultural practices, and people's attitudes
- Knowledge and Communication Barriers: Lack of information, misinformation, and ineffective communication strategies impeding the understanding and promotion of sustainable dietary choices.
- Economic and Political Barriers: Economic constraints, such as high costs, and political factors, including policies or regulations, limiting the feasibility or accessibility of healthy and sustainable food options.

Opportunities were classified in five groups:

- Food System and Culture Opportunities: Opportunities within the food system and cultural aspects that facilitate the promotion and integration of healthy and sustainable diets, leveraging culinary heritage and local food diversity.
- Economic and Political Opportunities: Favourable economic conditions and supportive political strategies or policies that encourage the adoption of healthy and sustainable diets.
- People and Community: Involvement and engagement of individuals and community groups in advocating for and embracing healthy and sustainable dietary practices.
- Initiatives, Activities, and Events: Various projects, activities, and events aimed at promoting awareness, education, and behaviour change towards adopting healthier and more sustainable eating habits.
- Physical-Environmental Opportunities: Environmental factors and physical resources (e.g. buildings) that offer opportunities for promoting sustainable diets, such as access to local, organic produce or infrastructure supporting eco-friendly food systems.

Figure 6. Barriers and Opportunities



Conclusions and further actions

As evident from **Figure 6**, the majority of barriers in the Rome Hub are linked to knowledge and socio-cultural dynamics. Education, communication, and information availability are identified as extremely crucial areas where efforts are still insufficient. Regarding communication, there is significant confusion due to the overwhelming amount of circulating data, leading to either misinformation or low trust among people.

Another strongly felt barrier is the economic one, especially in this period of significant price increases.

Despite existing gaps, education and schools are deemed as high-impact resources. To change people's habits, time is necessary, and starting with the new generations is crucial. Furthermore, the strong culinary culture on one hand, and the abundance and diversity of local products on the other, provide a solid foundation for building a healthy and sustainable diet. Disseminating the history of our cuisine and letting people know local products can serve as a lever to reconnect people with the value of food. In this context, local markets could be a good starting point to connect consumers to local producers, who are people with a great knowledge of their product. Together with other figures such as chefs, this can be an opportunity to promote local products.

Finally, since one of the strongest drivers of change is people's motivation, another opportunity lies in the fact that individuals' interest in changing is increasing. This is particularly evident in voluntary associations, especially those composed of young people.

Focusing on the hub (Agro Camera) we can state that one of the greatest resources is represented by the people who are part of it. Their great knowledge of the regional food system and their efforts to find a better way to support fresh, local and seasonal production represent a strong basis to start co-creating activities. For example, their experience with food and environmental education could provide the basis to co-create and improve activities with schools. Furthermore, they have an entire physical space that can be used to host events, conferences and meetings with the general public. It is still little used but it has the potential to become a reference point for activities.

Finally, being a top-down hub can be difficult due to bureaucracy and formalities but it gives access to contacts with politicians who have a great impact.

Talking about barriers, the Hub is aware that there is still confusion about what sustainable means, they have an idea but they need to have a formal definition also to be able to communicate it to the food system. Together with that, they don't want to disappoint actors by not being able to manage all the activities that can come from the actors' engagement process. This must be explored in depth by both prioritising the activities and evaluating the capacity of each actor who will be involved.

From the process of actor engagement some interesting ideas emerged that can be inspiring for the process of activity planning. Here are some examples:

- *Piatto raccontato* (A narrated dish). An immersive experience where the narrative is about what you are eating, its origins, curiosities, stimulations towards reaching back to the way ingredients are produced, where, how, why. It uses the taste to narrate the excellence of the territory. This activity was shared by the vice-chair of the journalist association who is involved in the organisation of workshops about short chain distribution and food sustainability.

- *Agroalimentare in rosa*. Organisation for women in agriculture and food production. Its objective is to connect these women, making them understand the value of their work. It also works as a network for small producers. This activity was also shared by the vice-chair of the journalist association.
- *Incontri d'Autore*. A free event organised until December 2023 each time in a different market in Rome to promote some of the excellence of the territory. Four local companies bring their products which are cooked by a chef. This activity was shared by the chef that is involved in this project. He also shared his idea of bringing this type of event to small town markets.
- PNRR (National Plan for recovery and Resilience) projects in schools such as school gardens to show children how food is produced or how natural cycles work. These activities were shared by some teachers we met during the fairs in which the Hub participated.
- Fruit & Vegetables project. Its aim is to promote healthy nutrition together with the children's education about seasonality, organic production, waste and environment. This activity was shared by teachers and some actors who have children. One thing that emerged is that it is limited to primary school so there is the need to bring these initiatives to higher school levels as well.
- Dietary plans for people with autism. This activity was shared by a researcher in nutrition and it will be carried out by a nutritionists' organisation together with an agronomy school.
- *Un pesce al Di*. Communication and promotion campaign for fish products. It is a project with the aim of promoting a conscious consumption of fish products among consumers. For example they have a website in which they provide recipes to cook less known fish species. It is a new project with the potential to encourage sustainable fish consumption. It was mentioned by a chef who is in the Hub's network.

4.2 Hub 2. Cagliari and Sardinia region (Italy)

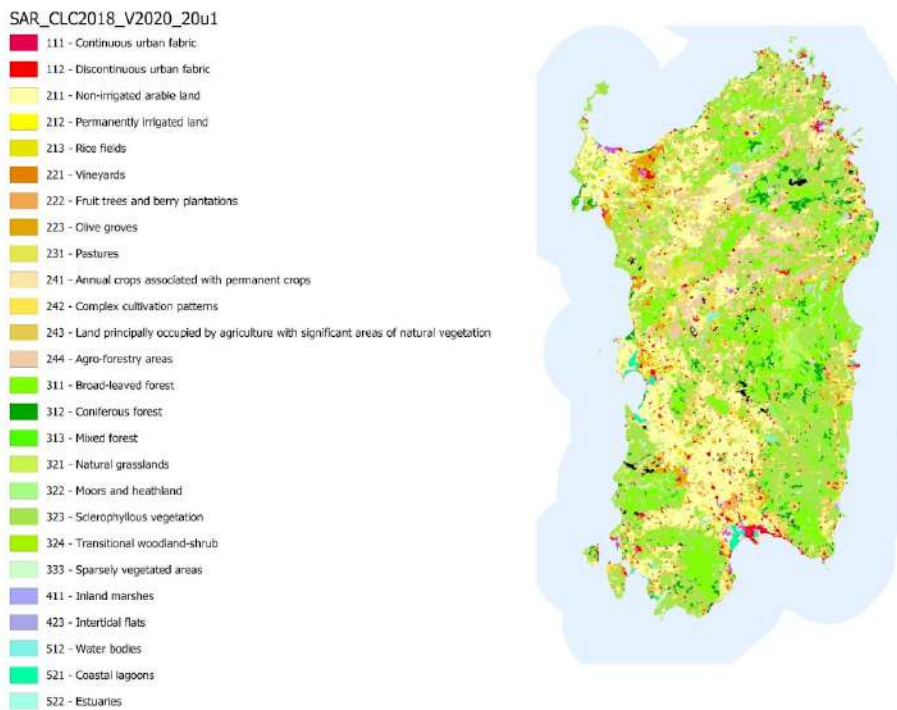
Regional profile

Cagliari and Sardinia region is also one of the city-regional food hubs that will implement SWITCH objectives. Sardinia, the second-largest island in the Mediterranean Sea and an Italian region, spans an area of 24,000 km², mostly rural. Sardinia is home to almost 1.6 million inhabitants. The most significant urban agglomerations are found around Cagliari metropolitan city and Sassari. Cagliari metropolitan city hosts around 26% of the Sardinian population and the city is also the capital of Sardinia. The area of influence of the hub covers the entire territory of Sardinia comprising both rural and urban areas. However, the activities may be conducted in Cagliari, Sassari and/or particular rural areas depending on the activity itself and the presence and interest of the actors.

The island features a diverse and complex landscape, characterised by plains and mountains, but mostly hills spread across the region.

These features along with extensive coastlines and multiple wetlands, offer a wide array of habitats and a rich biodiversity. Agricultural land occupies about half of the territory while forested areas dominate the other half. Notably, the island has one of the highest share of forests among Italian regions across its territory (as illustrated in **Figure 7**).

Figure 7. Main land cover types of Sardinia Island (Corine Land Cover, 2018)



The demographic profile of Sardinia reveals an ageing population with an average age of 47.3 years, surpassing the national average, particularly in rural internal areas (ISTAT, 2020). Life expectancy remains high at 83 years. Sardinia indeed is one of the five longevity blue zones having a remarkably high concentration of centenarians.

An outlook on health issues classifies nearly 32% of the island's adult population as overweight and 9.3% as obese (ISS, 2022). Almost 22% of minors in Sardinia (between 3 and 17 years old) are considered overweight or obese and whose health status is compromised by increasingly unhealthy food and daily habits and poor food education. These figures, although high, fall within the national average.

The socio-economic status of the population is shaped by income level, education level, and employment opportunities. Employment availability varies across the regions and the economic sectors. For instance, tourism is a significant source of income during the summer months in the coastal regions. However, many people work in agriculture where profitability is low and inconsistent. Geographic disparities can also be found. Rural areas with limited economic diversification and job opportunities have lower socio-economic

conditions than urban centres like Cagliari, Sassari, and Olbia. Despite overall educational accessibility, differences in educational accomplishment persist and significantly contribute to socio-economic disparities. These factors negatively influence the island's poverty and social exclusion index, which has seen a constant increase in the past years, reaching around 36.4% in 2022 - significantly higher than the national average of 24.4%. Health inequalities may arise due to the cited socio-economic conditions, biological factors, the resources and the efficacy of the healthcare system and the local status of one's residency.

Sardinia is home to some Italian minorities like descendants of people from Veneto, Marche, Abruzzo, Sicily, and Istria who settled in certain areas during land improvement works at the beginning of the 20th century and post-World War II eras. Italian-Tunisian families can also be found east of Cagliari toward the sparsely populated Castiadas. The main linguistic minorities include the Sardinian language (Sardo) which recent efforts to conserve remain heterogeneous. Other languages like Istriian, Venetian, and Friulian face extinction in Sardinia, spoken only by a few elderly individuals in Fertilia and Arborea.

Despite being the Italian region with the lowest total fertility rate and the second-lowest birth rate, important immigration flows in the last years from other Italian regions, Eastern Europe, Africa and China have contributed to Sardinia's population growth.

Food systems and food culture characteristics

Around 56% of the utilised agricultural area in Sardinia is composed of permanent pastures, 39% of arable land and vegetables, and the remaining part is made of woody crops (ISTAT,2020). The island's economy heavily relies on the livestock industry, ensuring food security and sustaining the livelihoods of thousands, with half of the agricultural farms dedicated to this sector. Specifically, sheep farming, typically extensive and pasture-based, stands at the basis of Sardinia's rural economy and local cultural identity. This is evidenced by the remarkable number of sheep heads in the region (almost 3 million constituting half of Italy's sheep population) reared for milk and lamb production (Anagrafe Nazionale Zootecnica, 2023). Most arable crops are temporary forages to support the livestock sector along with durum wheat for pasta and bread making. Olive trees, vines, and to a lesser extent temperate woody crops and citrus trees, are prevalent among tree crops. Most cropping systems in Sardinia are under extensive and heterogeneous systems. Yet, vulnerable areas under intensive crop and bovine farming systems exist (Arborea zone).

The region, through the regional and local administrations, actively works on enhancing access to nutritious food and sustainable food systems. Efforts are focused on advancing agroecological and low-input practices, promoting organic farming, preserving traditional low-environmental footprint practices and supply chains, and investing in climate and environmental sustainability.

In the last five years, Sardinia has continuously expanded its organic farming areas, reaching 171462 hectares by 2022, primarily consisting of grasslands (SINAB, 2022). This places it as the seventh largest among Italy's 20 regions, accounting for 7.3 per cent of the country's total organic farming areas. Efforts to promote organic farming included the establishment of the regional biodistrict of Sardinia in 2021. Sardinia is known for several traditional and quality food products (8 PDO and PGI) and has the highest share of Italian

producers dedicated to quality crops. Food habits generally align with typical Italian diets despite some culinary traditions varying with geography. Most Sardinians prefer home-prepared meals consuming mainly pasta and bread but also vegetables, fruits, legumes, and products of animal origin.

Coastal areas exhibit a higher preference for fish consumption, while inland regions lean towards meat. Moreover, prevailing agricultural activities contribute to culinary distinctions. For instance, areas with more cultivation, like in the plains, favour dishes derived from crops, whereas areas engaged in the livestock sector tend to consume more meat and cheese. Despite being a part of the dietary pattern, the island has unfortunately the second lowest rate of legume consumption in Italy (ISTAT, 2022).

People considered vulnerable and marginalised

Economic-social status is one of the major factors leading to vulnerability and marginalisation. People with low income, unstable employment and limited education have lower access to sustainable and healthy food. These are also exacerbated by the poor culture and information on healthy food. Even social assistance entities aiding individuals with dire economic conditions often overlook the quality and sustainability of the food they provide. Vulnerability and marginalisation are more likely to be found in the cities and popular peripheral areas. Additionally, teenagers, children and university students are susceptible to poor food habits. Children are conditioned by the economic status, lifestyle and the demands of the work-life routine of their parents. Children's vulnerability can be frequent in single-parent families. Contrary to previous generations, today's teenagers have unrestricted access to unhealthy food and eating habits (junk food restaurants and 24-hour vending machines across the cities offering low-quality and obesity-inducing food). Other vulnerable people include the elderly who can suffer from economic and health issues that increase their vulnerability to accessing adequate and nutritious food. Shepherds and small-scale farmers and food producers in Sardinia also suffer from global market price volatility, climate change (including water shortage and the increased risk of desertification in Sardinia) and rural depopulation, all of which negatively impact their livelihoods.

The Hub's characteristics and ambitions

The Cagliari and Sardinia food hub is represented by *Laore* which serves as the regional agency responsible for implementing agricultural programs and fostering rural development in Sardinia. Established in 2006, the agency was formed through the union and change of missions of various entities (from land transformation to technical assistance to development agency). Over the last ninety years, the hub has witnessed significant historical changes in the agricultural, rural and social landscape of Sardinia. Around 830 employees across different structures and departments in *Laore* cooperate to promote the sustainable development of agriculture and fisheries.

Laore's missions, in specific, include offering technical assistance to both public and private entities, coordinating the integration of agricultural and fishery supply chains, and rural districts, and valorizing the local production, regional biodiversity, and typical products.

Additionally, it supports the aggregation of agri-food production, assists local administrations in implementing territorial development programs, engages in integrated supply chain and territorial planning processes, and manages financial aids and contributions as per European, national, and regional regulations.

The SWITCH project echoes Laore's strategic commitment to holistic rural development and strengthens the region's pursuit of robust, resilient, and sustainable food systems. It represents an opportunity for Laore to continue its engagement in enhancing the economic-productive development in agriculture. This would be achieved through the transfer of modern supply chain concepts to local food systems, the promotion, and stimulation of the multifunctionality of rural areas, and the integration of sustainable practices. The project also offers the potential for improving the hub's performance by exchanging experiences and benchmarking activities between the work packages and the Food Hubs.

Currently, the hub's primary activities focus on fostering the establishment of rural districts, valorising quality production, and promoting sustainability in school catering through participatory processes. While these activities involve 15 people, only 6 of them will actively dedicate their efforts to SWITCH activities. Throughout all its activities, Laore will be receiving support from the IAFES (Impacts on Agriculture, Forests and Ecosystem Services) Sassari division of the CMCC Foundation.

Within the SWITCH project, the Hub will build upon existing collaborations with identified actors. In particular, there will be carried out activities centred on collective school catering. These activities allow the definition of territorially contained areas to interact with different actors, from policymakers to children addressing sustainability and healthiness at various levels. Additional strategies aim to valorise local production distinctiveness from global markets, primarily through school catering initiatives but also through other multifunctional initiatives. Other initiatives, yet to be evaluated, might also focus on multifunctional activities linked to the food experience. The hub is also interested in capacity building for those pursuing sustainable lifestyles, integrating family and work, and offering new prospects for a generation challenged by unemployment and limited opportunities. The hub recognizes the importance of participatory processes that enable collective sense-making and visioning and give every actor involved visibility and leadership.

The actor network of Cagliari and Sardinia region

At the start of the SWITCH project (February 2023), the Hub leader created an inventory of the actors within the Cagliari and Sardinia region network and the type of connection they perceived having with network members. A total of 26 food system actors were indicated. The largest category is made up of food providers (38.5%) and the smallest ones by food service, nutritionists, citizens and media (each 3.8%) (see **Table 3, Annex 5**)

The Hub leader perceives most actor connections as characterised by networking (80.8%) followed by coordination (7.7%). The actor that the Cagliari and Sassari region Hub fully collaborates with is the *Assessorato dell'Agricoltura e Riforma Agro - pastorale della Regione Sardegna* (Department of Agriculture and Agro-pastoral reform) which is the regional public entity overseeing agricultural policies, reforms, and activities within the

Sardinia region. Also, the Hub coordinates its work with the *Assessorato della Difesa Dell'Ambiente della Regione Sardegna* (Department of Environmental Protection) which is the regional public entity overseeing environmental policies and activities and *ANCI Sardegna* which is the organisation of Sardinian municipalities.

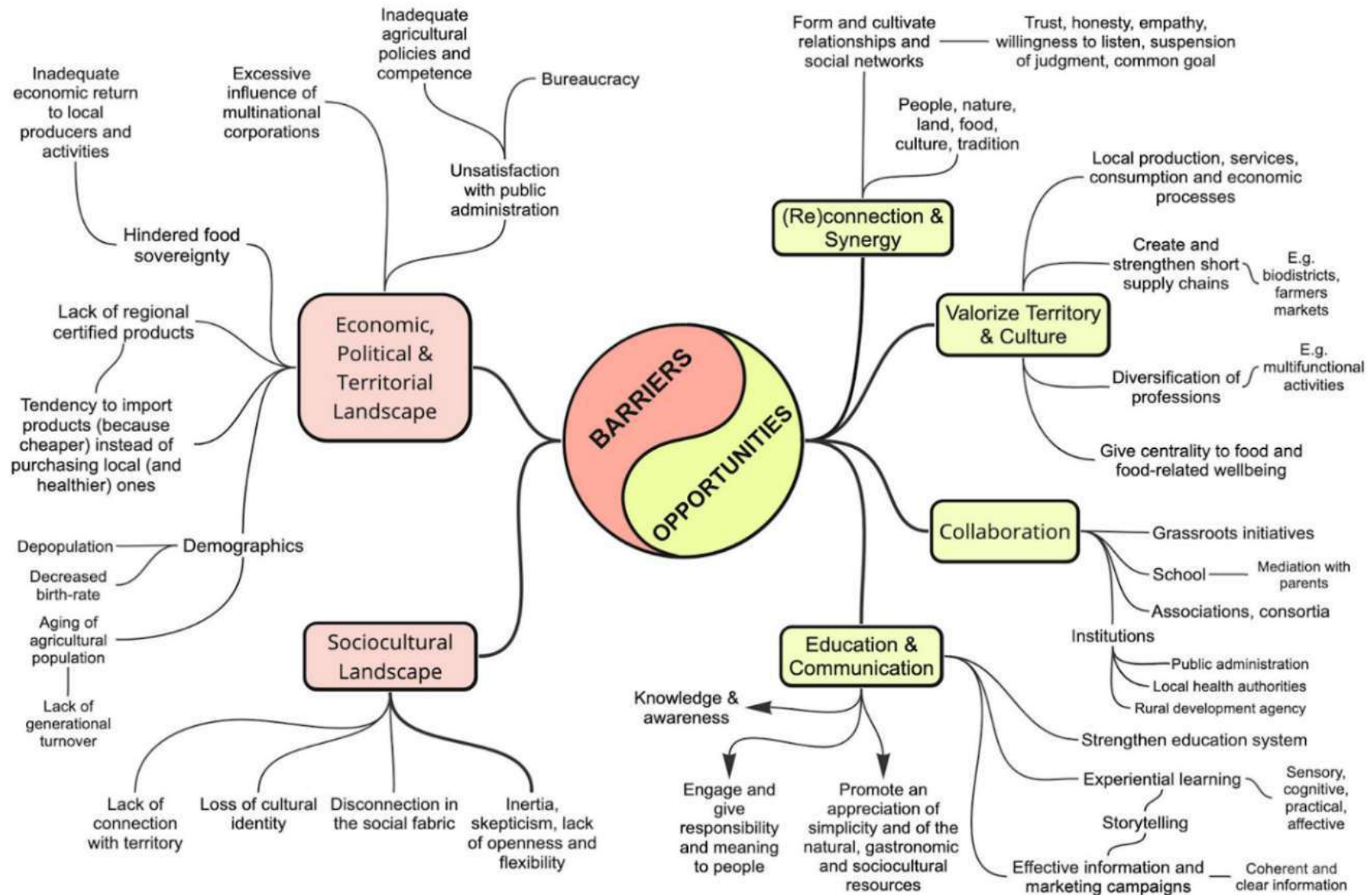
Cooperative relationships are also established with other regional agencies like *AGRIS*, the regional public research agency in the agricultural, food and forest sectors.

At present, the hub considers the existing network sufficient and diverse enough to support SWITCH activities. However, there is always room to expand and diversify the network but that depends on a clearer understanding of the specific activities to be implemented. The hub continuously increases its network by actively engaging with both existing and new actors. Solid relationships with the existing actors need to be constantly maintained for a collaborative search for solutions and the creation of new projects. Although the hub lacks an organised form for ongoing networking with these actors, there exists active communication, support, and genuine interest among all parties. This occurs through the exchange of collaborations and insights in common projects, participation in joint initiatives and attendance at events. Moreover, individual initiatives within the hub (for instance in events that might meet the hub goals) also contribute to fostering connections.

Opportunities and barriers to healthy and sustainable eating

The perspectives of the 27 actors in the Cagliari and Sardinia food hub on perceived barriers and opportunities towards engaging in healthy and sustainable food practices were captured in Salutogenic Story interviews in June 2023. The interviewees represent the categories that are aimed to be involved in SWITCH activities. As a consequence, numerous barriers and opportunities have emerged that are visualised in **Figure 8** and summarised in the next section, conclusions. (for the full list, see **Annex 14.**)

Figure 8. Visual scheme representing barriers and opportunities perceived by the actors in the food hub of Sardinia.



Conclusions and further actions

In the Sardinian food system, barriers are identified on two levels as shown in Figure 8. Most of them pertain to the economic, political, and territorial landscape. Challenges such as hindered food sovereignty, discontent with public administration, depopulation and a lack of generational turnover pose serious hurdles. Additionally, socio-cultural challenges are on the rise in the Sardinian community, marked by scepticism, inertia, weakened social ties, erosion of cultural identity and lack of connection with the territory.

Opportunities, as barriers, are also found at different levels to restore healthy and sustainable food systems. These opportunities rely on the interconnectedness and the initiatives of all actors. While numerous opportunities exist, fostering positive changes requires knowledge transfer and effective communication that empower, engage, and reinforce the role of individuals in food systems transition. A central role is played by school systems' education and schools' canteens where children get to develop their diets, food preferences and experiences. This could also happen by offering to new generations novel experiential and hands-on learning. This would be possible thanks to the rich agrobiodiversity of Sardinia and its vibrant food culture deeply rooted in its history, territory, and traditions. A valorization and revival of local products, food and culinary traditions and connection with farmers, restaurants, agritourism and other actors involved in their valorisation might be useful to reconnect people with the territory and to boost the local supply chains.

4.3 Hub 3. San Sebastian and Basque region (Spain)

Regional profile

Donostia-San Sebastián and the Basque region are located in the north-east part of the Iberian Peninsula, on the border with France. It is one of the chosen city regions to implement innovative activities to promote healthy and sustainable diets within the SWITCH project. This region hosts a mix of Mediterranean and Atlantic climate and a mixture between coastal and mountainous orography. The area of impact of the Hub is not really broad in terms of extension and people living in it, but it is usually mentioned as a reference model regarding both socioeconomic and environmental indicators. The proliferation of industry, knowledge dissemination centres like universities, innovative projects fostered by entities like technological parks, a growing array of social movements and their interconnection, makes it a living territory, with great performance in comparison to other surrounding regions but, of course, still with much room for improvement.

The Basque Region (Euskadi) is the living place for approximately 2.250.000 people, who prominently live in cities or in considerably big municipalities. It could be said, then, that the Basque population is predominantly urban. Concerning population, like in most European regions, growing life expectancy, linked with low natality rates are contributing to a clear populational ageing. Regarding socioeconomic indicators, the social-economic status of Basque people is higher than the Spanish average, attending to different indicators⁶.

⁶ GDP per capita, Gini index, social exclusion levels...

However, inequalities, which are, among other factors, determined by unemployment, labour insecurity, excessive housing prices and barriers to the political and social participation of the citizens, are still obvious. Although data related to poverty and social exclusion rates are in general better than the average, there is still an important amount of people⁷ who do not live with a standard minimum of material well being. Those inequalities are in many occasions translated to health issues. Income, job, education, living place, food consumption and the state of the biosphere are some of the main social determinants of health which clearly affect some people more than others.

Concerning those people, there is a general tendency among institutions and the academy to identify “vulnerable groups” according to one single social characteristic and to ignore the interconnections and overlaps that happen between them. Nevertheless, women, migrant people, poor families and families whose main “breadwinner” is looking for a job are usually identified as the most vulnerable groups in the region. Other aspects leading to vulnerability, such as spatial segregation are not usually taken into account for this region and the creation of general and huge “vulnerable groups” cannot address the real dimension of the vulnerability issue. It is crucial, then, to analyse vulnerabilities in an intersectional and systemic way and to ask ourselves “vulnerability to what?” not to be generalist (although sometimes it is inevitable) and to represent the problems in a more realistic way.

Regarding the Basque food system, it shows, as in some of the fields which have been previously described, many similarities with the European and Spanish panorama. For instance, even if there is an important valuation of local products, more than 90% of the food eaten in the Basque Country is imported, which shows a clear lack of food sovereignty and the exportation of the Basque ecological footprint. There is also an evident loss of land for agriculture and a growing land concentration like in the rest of Spain. However, there is also a growing degree of awareness regarding sustainability among food systems and a wide range of actors (social movements, institutions, citizens, etc.) who do not always have the same vision and between which the dialogue is not always easy.

However, Basque culture and food have always had a close relationship. Indeed, local gastronomy, which is enriched by the mixture of sea and mountain cultures, is such a relevant landmark of the Basque Region. Food tends to be an element which constitutes the centre of many social occasions, many social plans are food-related. “Txokos” or gastronomic societies⁸, “pintxos⁹” and “pintxopote¹⁰”, local food markets and “sagardotegia¹¹” are some of the social-gastronomic phenomena which show the relevance

⁷ In 2020, 13,9% at risk of poverty or social exclusion (AROPE), 10% at risk of poverty, 3,8% suffered severe poverty and 5% suffered severe material deprivation.

⁸ Traditionally male clubs (the majority of which have moved into a joint model during last decades) where food is cooked and eaten among the members of certain social groups (friends, family, etc.) to celebrate something or just as a social plan.

⁹ A small portion of food which tends to be served in a wooden skewer or over a piece of bread, and which can contain a wide range of ingredients.

¹⁰ Local tradition, quite widespread among which combines the tasting of pintxos and different beverages at special prices.

¹¹ Cider bars, normally placed in rural areas where people go to have lunch or dinner and drink all the cider they want, which has normally been locally and traditionally elaborated.

of gastronomy in the Basque Country. What is more, even now, in the age of globalisation, the valuation of local products is still high, with many different labels¹² (figure 9) showing that the products have a local origin which are really famous. In fact, the rich orography and mixture of climates evince a vast heterogeneity of foods, which go from fish and meat to vegetables, legumes, dairy products or even wine. Moreover, participatory guarantee systems (PGS) are also being developed in the territory¹³.

Figure 9: Food Labels in the Basque Region



The Hub's characteristics and ambitions

The SWITCH Basque Hub, still in a process of definition, has three main members ([BC3](#), [Basque Culinary Centre](#) and [Kutxa Fundazioa](#)) but it is still working on its amplification and on the creation of a permanent group which includes more agents of the Basque food system. Precisely, the information used to do this fingerprint has been the result of a combination of desk research and interviews. The interviewees have been people representing Basque Culinary Centre (focussed on gastronomic issues) and Kutxa Fundazioa (focussing on social issues). However, one of the next steps within the Hub will be to engage and interview other agents, which, as it will be explained below, could be susceptible of becoming Hub members in the future.

The Hub's physical space, where meetings and different activities are launched, is certainly urban, as it is placed in the centre of Donostia-San Sebastian, the main city of the province of Gipuzkoa, in the Basque Country. To be more concrete, it is placed in the "Tabakalera" building specifically on the upper floor in [LABE](#): "The Laboratory for Innovation and Digital Transformation for the Gastronomy of the Future", which can be seen in Figure 10.

¹² Ekolurra, Eusko Label, Euskal Baserri, Anchoa/Bonito del Cantábrico, Idiazabal, Rioja Alavesa, Arabako/Bizkaiako/Getariako Txakolina, Euskal Sagardoa.

¹³ For more information, visit https://pgs.ifoam.bio/pgs_groups/204 and <https://ehkolektiboa.eus/bermesistemapartehartzailea/> (in basque), or also go to Cuellar-Padilla, Mamen, Haro-Pérez, Isabel & Begiristain-Zubillaga, Mirene (2022). Participatory Guarantee Systems: When People Want to Take Part. Sustainability, 2022, 14, 3325, <https://doi.org/10.3390/su14063325>

Figure 10: Tabakalera Building. Physical side of the Basque Hub



Within SWITCH, the purpose of the Basque Hub is currently to contextualise regional diets, focussing on sustainability and health issues in order to find an appropriate transition narrative which respects and promotes the cultural and socioeconomic context of a culturally very rich region. In the end, even if it is a small region, the Basque Country is a referential territory in terms of gastronomy, which hosts an extensive network of restaurants, including many world class chefs. Although the agricultural area of the region is small and has decreased during last decades¹⁴, both food production and consumption are closely linked to the gastronomy, culture and identity of the Basque citizenship. In this context, the Hub's mission is to connect different stakeholders in the region, to understand what they are already doing to improve diets in terms of sustainability and health and to create a space to share knowledge and experience between them, which could help to generate collaboration, projects and even participatory policies among them. For doing so, the objective is to create a stable group of stakeholders to monitor during the project to understand what is happening in the region at the moment, what activities are being done there so that we start the process of co-creation from what is currently being done and we keep building.

Regarding the composition of the hub, the main actors, as it has been said before, are the Basque Centre for Climate Change (BC3), Basque Culinary Centre (BCC) and Kutxa Fundazioa, who will have different roles regarding the project. BC3 will work (and is working) as the coordinator of the Hub, linking it with the different Work Package (WP) researchers and with the other agents that participate in the rest of the SWITCH Hubs. Apart from helping BC3 launch different activities, BCC plays special focus in the connection of chefs with both production and consumption sides in terms of sustainability,

¹⁴ From 69.821 hectares dedicated to agriculture in 2000 to 59.957 in 2022. For more information go to the Basque Institute of Statistics (EUSTAT)
https://eu.eustat.eus/bankupx/pxweb/eu/DB/-/PX_102124_fesp_agr01.px/table/tableViewLayout2/

and Kutxa Fundazioa will facilitate the urban gardens it manages for some of the activities that are being taught. Regarding staff issues, from BC3 seven people are currently working at the project, out of which three have exclusive dedication, 2 people from BCC and other two people from Kutxa Fundazioa.

As it has been mentioned before, the idea of the Basque Hub is to make use of the activities that are currently being tackled in the region to channel a just transition towards healthy and sustainable diets like the one SWITCH promotes and also start some new ones focused in school canteens. The reason for that approach is that many different activities are currently taking place in the Basque Region related to sustainable transitions of agrifood systems. The Hub's partners find these as an interesting opportunity to enrich ongoing projects with SWITCH resources and activities. The community gardens that Kutxa Fundazioa manages, which have previously been mentioned, conform a network called "Baratza Parke Sarea", that has been working since 2013 and is available for citizens from more than 30 municipalities across Gipuzkoa province¹⁵. Consumer groups associated with food, contribute to shortening the food chain and are also something common within the Basque Country. Concerning the "educational" side, many projects have been taking place in the region during recent years. For instance, BCC has a wide array of recipes and books which have been developed and published in order to foster healthier and more sustainable diets¹⁶, tackling that transition from diverse sides. They have also developed gastronomy projects which aim to emphasise the consumption of legumes¹⁷ and new products based on alternative proteins¹⁸, apart from launching pilot actions to promote healthy, traditional-innovative meals with catering companies at school canteens¹⁹ and workshops to current and future professionals about different topics²⁰. Another interesting initiative in the territory was the launch of a citizen's assembly in San Sebastian in which, after four meetings between November 2022 and January 2023, diverse recommendations related to the question "how could we ensure the agricultural activity of Gipuzkoa to face the current

¹⁵ Apart from the ones placed in the province of Gipuzkoa, there are also important networks of urban community gardens in Bizkaia and in Araba.

¹⁶ Recipes using food discards (Manual de Descartes) and wild plants and gastronomy (Silvestre), for example.

¹⁷ GASTROVALOCAL (Developed by Neiker to foster the revalorization of traditional varieties of vegetables, GASTROKOP (economic aid for gastronomy-related projects in the area of cooperation), DELICIOUS (PRIMA project to avoid child and teenager obesity through the Mediterranean diet).

¹⁸ INSEKNIOR (development of products for the elderly based on protein from insects), GASTROALGAE (development of beverages and gels based on microalgae as a healthy alternative to sugary soft drinks and alcoholic beverages), MYCOTOUR (development of mushroom-based products in rural areas).

¹⁹ E.g. of some initiatives led by Ausolan and Basque Culinary Centre to rethink traditional diets in school canteens. For more information:

<https://www.naiz.eus/es/gaiak/noticia/20211116/ausolan-y-el-bcc-replantean-recetas-tradicionales-de-los-comedores-escolares>.

²⁰ About the revalorization of food waste, wild plants and traditional varieties, healthy/sustainable approaches, etc.

climate emergency” were developed²¹. Moreover, different projects with which SWITCH could have remarkable synergies are taking place in the region²².

With that basis, the idea of the hub is to apply activities of diverse nature precisely taking advantage of the activities that are currently taking place in the region. For that reason, the hub’s idea is to use Kutxa Fundazioa’s community gardens to measure people’s food autonomy, to do some activities in supermarkets to analyse people’s choices in different situations, and also other ones at school canteens. The hub is at the moment open to the realisation of other activities, though, that are expected to be designed in a process of co-creation with the other partners and hub members.

Network within the Hub

Although there were previous connections among the actors that currently conform the Basque Hub, the hub itself was specifically created for the SWITCH project, with the idea of permanence beyond the end of the project. On the other hand, the physical space where the hub is located, as it has been mentioned before, is in an urban area, in Donostia (San Sebastian). Concretely, as it has also been highlighted before, it is placed in the Tabakalera building, an antique tobacco factory which was bought by Donostia’s city council, by the provincial (foral) council of Gipuzkoa and by the Basque Government, to transform it into an international culture centre. In this centre, Kutxa Fundazioa has a space which will be used for activities within SWITCH, a part of LABE living lab which belongs to BCC.

Regardless of those 3 current hub members, the project aims to gather a wider range of relevant agents for the basque food system who can be part of a stable group for meetings, collaborations and for discussing and finding common paths for the transition of the food system. However, the project is still trying to construct that group, so, regarding the motivation to join SWITCH and the experience with it, for the moment, only the current hub member’s opinion will be taken into account. Nevertheless, a series of events that will be taking place from the end of November on, will contribute to the construction of a more representative narrative. Certainly, the actors that have been interviewed have highlighted that one of the reasons for them to have joined the project has been the opportunity to participate in a European project which considers the different dimensions of sustainable food systems and diets. Regarding the necessities from SWITCH, some of the agents within the hub have mentioned that during the project it will be necessary to have an effective connection with other Work Packages (WPs) and Hubs, which facilitates coordination and

²¹The nine developed recommendations were: 1) repay rural owners for their contribution to ecosystem services and to spread those values to the society; 2) promote forest management through R + D; 3) change the economic valuation of the primary sector for an ecosystemic one through the participation of different stakeholders; 4) sensitise society since childhood regarding the agricultural world and climate change; 5) study policies for the rejuvenation of the primary sector; 6) promote km0 from the first phase of production; 7) promote ecological agriculture through the creation/growth of agents that raise competitiveness, productivity and commercialisation; 8) promote local product adjusting fiscal bonifications and 9) boost mixed professional teams in the sector. For more information, check the following link <https://www.gipuzkoa.eus/es/web/herritarrenbatzarra/recomendaciones>.

²² Other e.g Crops4Life

(https://www.vitoria-gasteiz.org/wb021/was/contenidoAction.do?idioma=es&uid=u_63857896_18b1910a957_737a) and Building a Green Gastronomic City (<https://innovation.bculinary.com/en/portfolio/building-a-green-gastronomic-city/>), among others.

dialogue to find synergies and also what to report from the activities that will take place in the territory. Some of them also consider that the project must engage and give tools to public institutions to encourage local and organic agriculture and livestock, which, even if has increased during last decades, is still the exception²³. The fact that resources must be promoted to educate, give information and facilitate access to these foods to people was another demand among the current Hub members.

The actor network

Concerning the actor network of the Basque Hub, the quantity and quality of the connections is addressed in **Table 4, Annex 5**. The figure shows the different connections within the Hub that were signalled at the beginning of the project, and also the ones that the Hub is aiming to get once the project is presented to the actors of the Basque food system (highlighted in green). As it can be seen, the potential network is quite ambitious, but it is hoped that it gathers the sufficient actors to contextualise the region and to implement activities in the most transversal way that is possible. The quality of the connections is not immutable, and it is expected that it evolves during the years of the project.

Opportunities and barriers for healthy and sustainable eating

Regarding opportunities and barriers to the just transition towards healthy and sustainable diets that SWITCH is trying to promote, **Figure 11** (page 56) gathers some of the first provisional insights of the Basque Hub. The figure is quite provisional and will be updated with the inputs that the different agents of the Hub provide during next weeks' events. However, preliminary speaking, some elements that limit the mentioned transition and some others that are susceptible to foster it can be mentioned.

Regardless of the provisionality of the figure, it can provide a general overview of the Basque panorama concerning barriers and opportunities for healthy and sustainable eating. There are obvious demographic and socio-economic factors that can be contributing to the limitation of a dietary shift: population who is getting older, inequality levels, rising food prices, etc. However, the lack of a common definition of what a healthy and sustainable diet is, a poor definition of what a vulnerable group is concerning healthy and sustainable eating and the existence of a wide array of stakeholders in the Basque food system among who different visions and power imbalances are evident are also other factors that can prevent the objective of the SWITCH project from being achieved. Moreover, the specific characteristics of the Basque food system contribute to the limitation of local and ecological production and consumption, which in turn is limiting the territory's food sovereignty.

Nevertheless, the territory is also the place for a vast variety of initiatives, projects and, in the end, opportunities to achieve a generalisation of healthy and sustainable eating. Indeed, the relevance of gastronomy in the Basque culture and identity is an important factor to

²³ In 2021 the share of organic agricultural lands within the whole agricultural lands was 4,6%. For more information:

<https://www.euskadi.eus/gobierno-vasco/-/noticia/2022/la-agricultura-ecologica-sigue-al-alza-euskadi-pero-todavia-queda-trabajo-que-hacer-cumplir-objetivos-del-pacto-verde-europeo/>

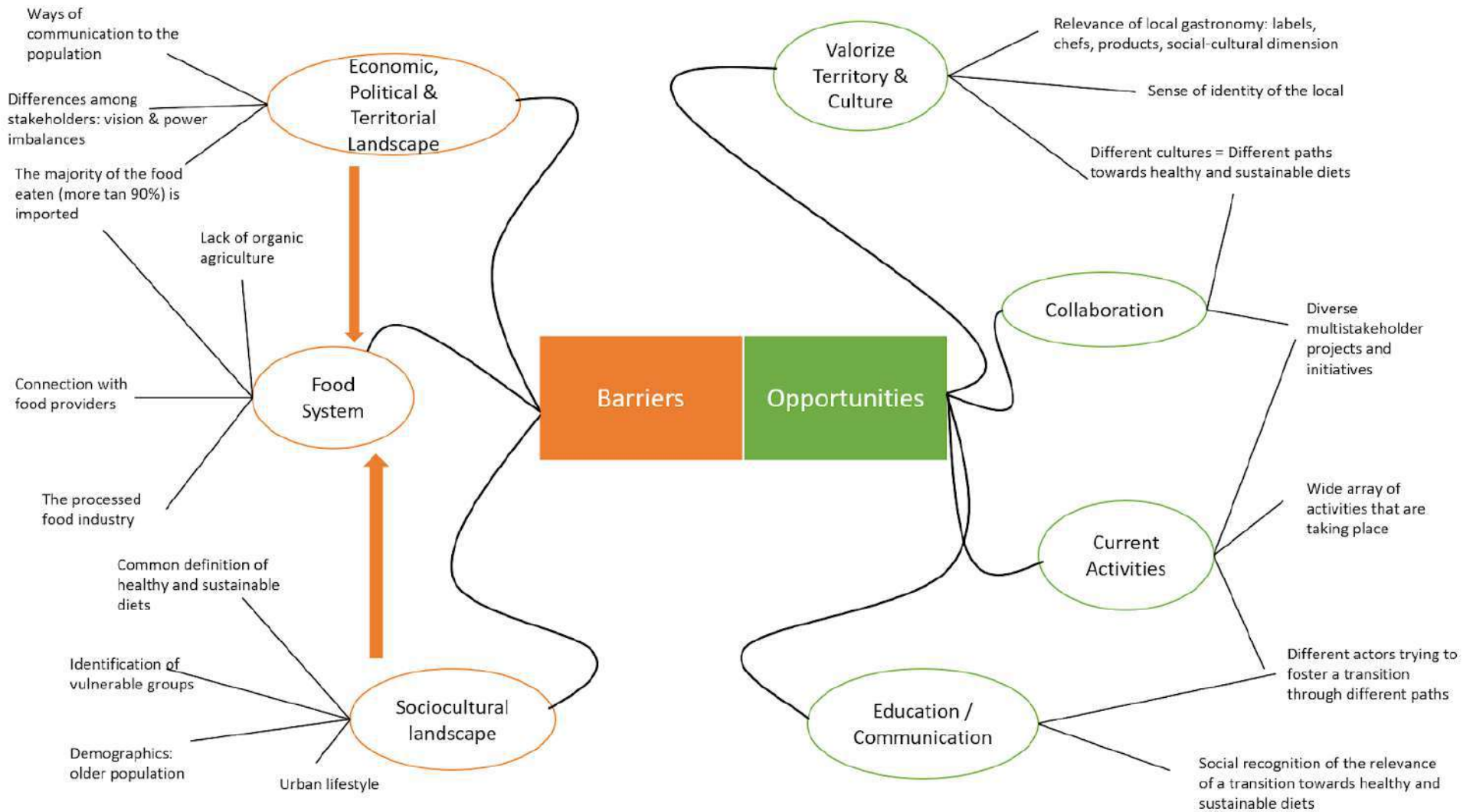
consider the promotion of the production and consumption of local products. What is more, different initiatives and projects (which have been previously mentioned) coming from different agents of the Basque food system are taking place nowadays in the territory, as it has been mentioned before, and a social recognition of the necessity of switching towards healthy and sustainable diets is also common among the local population.

Conclusions and further actions:

As it has been highlighted in some occasions along this “SWITCH Fingerprint”, this elaboration is currently provisional and susceptible to be modified during next weeks. However, it shows a general perspective of the Basque panorama regarding the SWITCH project. The implementation of activities to promote the dietary transition, which is one of the key elements of the project, is currently being addressed in the Basque region in different ways. Both private, public and citizen initiatives are taking place in the territory and the idea of the Hub is to encourage, facilitate, reconduct (if necessary) and foster those activities and not to start from scratch. Moreover, some new activities in community gardens, school canteens and among the different stakeholders of the food system are also being planned.

Another aspect of the region that this fingerprint has shown is that even if the Basque region is such a small territory, it hosts a wide variety of stakeholders who can contribute to the development of SWITCH. However, the existence of different views of healthy and sustainable food among them, as well as power imbalances could result in chaotic and biased activities, views and narratives. For that reason, it is important to set common goals among the stakeholders and to find a common narrative that fits the best with the territory’s social and cultural characteristics and with the necessities of the most vulnerable, who should be identified in a realistic and non-generalistic way. Barriers and opportunities to the dietary shift have been identified and addressed (in a provisional and generalistic way), highlighting the fact that despite its difficulty, there are seeds in the public institutions, grassroots organisations, general citizenship and in the general panorama of the Basque food system which can contribute to a healthier and more sustainable food system and eating throughout the territory.

Figure 11: Hub 3. San Sebastian (Basque Region)



4.4. Hub 4. Montpellier Metropolis and Occitanie region (France)

Regional profile

Montpellier Metropolis and Occitanie region is one of the city-regional food hubs chosen to implement innovative activities. The region hosts 6 million citizens, of which 500,000 live in the Montpellier Metropolis (Montpellier Méditerranée Métropole, n.d.) The Montpellier metropolis consists of the city and its 31 municipalities. Situated in the Southeast of France, the region is geographically diverse with proximity to the Mediterranean Sea, highlands and different mountainous landscapes. As the region extends on 72000 m², it is difficult to characterise its heterogeneous landscape, associated production and cultural identity. The Metropolis however is irrigated by two major coastal rivers and contains multiple biodiversity hotspots, favouring specialised farming in the area. Specifically, viticulture and market gardens are very present on the territory, reflected in the number of producers and markets which allows easy access to fruits and vegetables. Universities, organisations, and research centres are remarkably present on the territory and participate in its development (Montpellier Méditerranée Métropole, n.d.). The tertiary sector is predominant with very few active industries.

A considerable part of the Montpellier metropolis population is precarious or lives below the poverty line. This is partially explained by the tertiary sector offering precarious jobs. Different migratory waves from Italy, Spain and Northern Africa have marked the territory in the last century. The population is also very dynamic and heterogeneous, with a lot of young people, students and highly skilled workers temporarily staying.

Regarding health, Montpellier Metropolis does not differ so much from national statistics. Obesity rates are comparable to other French regions and the ageing population explains the prevalence of chronic illnesses. National Food-based dietary guidelines are only followed by a small part of the population and fruit and vegetable consumption is low. Nutrition is not a public health priority as tobacco and alcohol prevention remains more critical to tackle. However, access to care is emphasised and illustrated by the high prevalence of doctors and hospitals in the metropolis.

Food habits in the Montpellier hub are characterised by frequent visits to markets due to their accessibility and presence in the food environment while supermarkets remain an important delivery channel. Eating habits are Mediterranean, which means most fruits and vegetables, cereals, olive oil, and fish. Some products are independently typical of the region but not rooted in a specific gastronomy. Food and eating practices are not as culturally marked by immigration waves as in other French regions for example. Food is usually prepared at home and ready-to-eat food consumption is decreasing. The high prevalence of fast food restaurants, specifically in the city can be explained by the student demographic. Occitanie is France's leading organic region, representing 20% of organic agriculture in the country. The region was also awarded the best organic region in Europe in 2022 thanks to increasing agricultural investment and support in organic transition at multiple levels. The region also holds a great share of label-protected food producers in France (Région Occitanie / Pyrénées-Méditerranée, 2023). Montpellier Metropolis takes responsibility for agricultural policies and makes significant efforts to increase and enable access to quality, sustainable and healthy food. For that purpose, political priority is focused

on promoting agroecology and resilient supply chains. Agroecology aims to build agricultural systems inspired by nature and its ecological processes. It is a way to produce differently with inspiration from nature by enhancing it and reconnecting production and nutrition. This priority is shared between local and regional governments as well as a lot of food system actors who work conjointly to move towards more sustainable agriculture. Additionally, bottom-up initiatives have flourished thanks to citizen's mobilisation and dissemination of knowledge by various research organisations in the area.

People considered marginalised

Montpellier is a diverse city, ethnically, socially, and economically. In the last few years, the notion of food precarity has extended beyond identified socio-economic groups. Students, precarious workers and single-parent households. Other noticeable groups are North African and gipsy communities, for which there are striking disparities in employment rates, nutritional status and health.

The gipsy communities settled in Montpellier have a high prevalence of chronic diseases, obesity and hypertension. Their eating habits differ from the rest of the population, with considerably higher intakes of meat, ultra-processed food and sugar-sweetened beverages. They also face discrimination, noticeable in spatial marginalisation and their constant exclusion from the job market. Interestingly, they have been taking part in informal food and vegetable distribution networks in the area for decades. More generally, a lot of people receive food aid and have difficulties in financially accessing food, specifically fresh.

Geographically, this diversity is visible in the hub through strict separation between people, creating and emphasising marginalisation. Schools for specific population groups, variable real estate prices, and landscape change at neighbourhood frontiers are examples of this constructed marginalisation. When working with marginalised groups, it was reported that technological tools widen the gap between socio-economic groups and are counterproductive when aiming at changing food and eating practices. In the same way, education can create frustration and negative feelings of responsibility. Past initiatives in the hub have highlighted the inequality in the transition to sustainable diets, and the need to consider innovative approaches.

The Hub's characteristics and ambitions

Within the Hub, research has an important role in supporting innovation. UMR Innovation is an INRAE research unit in the Montpellier hub, focused on agroecological, climate and food transitions. The unit designs, leads and participates in projects and programs ranging from agroecology practices to food accessibility, in various geographical locations. Therefore, researchers have different backgrounds in agricultural science, sociology, geography and nutrition. They share common goals of knowledge dissemination, communication and support of grassroots initiatives. The research unit director has worked on food systems sustainability since the 2000s and has been engaged in defining and analysing what they entail. MOISA (Montpellier Interdisciplinary Centre for Sustainable Agri-food Systems) is another INRAE unit actively involved in the hub and focused on the interaction between nutrition, health, agriculture, and the food system.

Both units share the overarching goal to make the food system evolve by supporting, studying and accompanying initiatives in this direction.

The Hub was developed by these two research units based on closed links already established with past projects and initiatives. Connections were already strong with the metropolis, FAB'LIM and the UNESCO Chair. The former was chosen because of its political and public policy knowledge, agenda and leverage and FAB'LIM as an innovation and research actor regarding the implementation of experimental initiatives in Montpellier. Finally, the UNESCO Chair was thought to bring deep and extensive knowledge about initiatives, research paths and actor networks within Montpellier. The research team is composed of 11 researchers, the 3M has engaged 2 representatives, the UNESCO Chair has flagged two representatives, and FAB'LIM provides insights from 1 expert.

Within the Montpellier Metropolis, there is a political consensus between a range of political parties on the importance of moving forward on food and agricultural issues. The existing collaboration of political actors, researchers and producers is highly favourable for change. Parallel to this, collective initiatives are major levers of change in the hub, before political decisions, or individual consumer decisions. This is why the hub is investing in grassroots initiatives through political and scientific support. Recreating some of the links between a region's agri-food activity and its eaters is key to promoting sustainability and system transformation. Consumers' active participation increases interest and knowledge in food, making eating a participatory and democratic act. Moreover, participatory involvement also improved compliance with nutritional recommendations in past projects. This can be through discussion, exchange and decision-making but also physical work in structures like participatory shops.

Historically, Montpellier is a pioneer city in France for having launched a systemic agricultural and food policy very early on (2008). This policy was the result of collaboration between mayors of the metropolis and researchers, building an action plan aimed at linking agriculture and food. Through this city food policy, many initiatives have been launched and different municipality branches have been collaborating on common issues.

Additionally, Montpellier was the first city in France to engage in the Milan pact, showing its engagement at the international level. Moreover, the hub also participates in projects supporting the development of agri-food systems in Africa.

Montpellier Metropolis's approach to health and sustainability is remarkable and characterised by decisive responsibility in creating food policies for innovation, collaboration of actors and interaction with consumers. In the last 6 years, the city has developed a territorial cooperation approach to establish more sustainable food systems: the P2A agroecological and food policy. The overarching goal of this project is to improve access to local food, support actors of the agri-food system, reinforce the link between farmers and researchers, improve the environmental impacts of the industry, preserve resources, and favour social cohesion. This initiative stems from the lack of alignment on reterritorialization at the national and European levels, pushing local actors to transgress barriers and accelerate the process. The remarkable aspect of this food policy is not only the cooperation between all actors of the territorial food system but also the involvement of citizens in priority definition.

Many research projects have emerged through this policy as well as bottom-up initiatives supported by political actors, allowing social innovation and active participation of citizens in policies. Such initiatives include cooperative food stores and participatory cooking for example. This is a continuing process as it requires coherence with existing policies and all levels of the food system (Chaire UNESCO, n.d).

A remarkable project the hub has been involved in is a Communal Food Bank. Based on the social security framework, a collective budget was drawn from public and private funds, as well as citizen contributions. From this budget, 100€ is distributed per household and monthly to use in selected local food shops, based on defined healthy and sustainable criteria. Voluntary citizens were picked at random to participate, representing a real population sample. This experiment aimed to give local consumers access to quality food and contribute to the development of local, sustainable distribution channels.

Another project the hub has recently been involved in aims to study the place and role of Gypsies and Travellers in the agricultural and food sectors of Occitanie. One of the work packages focuses on prevention, awareness-raising and food education initiatives.

The ambition of the hub in the future of SWITCH is to build on the collaborations already in place in the network and to support the development of existing initiatives. First, the Hub wants to develop its influence. To raise awareness of the project and engage a wide range of actors, the hub wants to make ludic events that could anchor SWITCH in the public eye. This is meant to be done during the “4 seasons of agroecology” led by the metropolis, in the next spring season. An official launch could be held during this event for the general public to create engagement and awareness about the objectives of SWITCH.

Regarding initiatives, the hub wants to monitor the communal food bank and its potential by-product: cooperative supermarkets, participative grocery stores, buying groups, food banks and food vouchers. The hub also wants to focus on marginalised groups, identify their needs and support existing connections like the ones made with the gypsy community through various projects.

Overall, the emphasis on grassroots actions is clear through the support of citizen committees, and governance bodies. Within the actors of the hub, there is an interest in exploring food democracy through these initiatives. Researchers can contribute to this interest by evaluating the impacts of such actions.

The SWITCH project is an opportunity for the Montpellier metropolis to build on existing knowledge about successful food policy making. Common goals show the potential of the Montpellier hub to do so. The motivation of actors to join SWITCH was the focus on the reterritorialization, food systems transition and food and eating practices. One of the SWITCH objectives is to downscale the food systems knowledge from Europe to a regional hub. In Montpellier, increasing decision-making at the city level and dissemination of knowledge by local research centres shows the hub's priority to move away from top-down European food system knowledge. Additionally, the farm-to-fork approach key to SWITCH's successful unfolding is at the heart of Montpellier region's recent policies, illustrated by active engagement and communication between all actors along the agri-food system.

The actor network of Montpellier

In the last few years, Montpellier Metropolis has laid the foundation for more innovative initiatives and collaboration in the food system. At the start of the SWITCH project (February 2023), the Hub leader created an inventory of the actors within the Montpellier Hub network and the type of connection they perceived having with network members. A total of 35 food system actors were indicated. The largest category was made up of citizens and general public organisations (28,5%) and the smallest ones were nutritionists and healthcare providers (0%). (see **Table 5, Annex 5**)

The Hub leader perceived most actor connections as characterised by cooperation and knowing (see **Annex 5**). The actors that Montpellier Hub fully collaborates with:

- Montpellier Mediterranee Metropolis (3M): Counting almost 500,000 inhabitants, 3M groups 31 communes, with a wide range of public policy competencies. In France, the competencies of a Metropolis include the economic, social and cultural planning and development, planning of urban spaces, housing policies, and city policies, including to some extent environmental policies such as house waste management, energy transition, water and territorial climate policies.
- UNESCO Chair on World Food Systems: the Chair was created in 2011 as a collaborative effort of the Institut Agro Montpellier and the Agropolis International. The Chair aims at increasing and disseminating knowledge on world food systems, with a focus on urban areas. The Chair leads important activities to bring together a variety of stakeholders: it conducts training to spread awareness and knowledge, and consolidate its network, leads coordination of multidisciplinary programmes to frame dialogues between the scientific realm and other stakeholders, and finally the Chair supports science-society dialogue to inform decision-makers and guide research initiatives.
- FAB'LIM (Laboratoire des territoires alimentaires Méditerranéens): FAB'LIM is a research hub to support projects and partnerships around territorial agriculture, respectful of ecosystems and resilient to climate change, a food democracy with sustainable and inclusive food systems, and enhanced economic cooperation between the food system's stakeholders. FAB'LIM supports participative approaches and exchange spaces between actors with experimental practices.

Due to the already extensive nature of the Montpellier Hub network during the first inventory, the network's development activities have mainly focused on deepening the collaborative efforts between organisations partners of the Hub (INRAE, 3M, UNESCO Chair and FAAB'LIM). For this reason, no changes can be reported on the increase of actors involved in the Hub. However, further collaborative explorations will be sought in the months ahead, as the Action Plan of Montpellier Hub solidifies.

From interviews with hub members, perspectives on the current network in place were drawn. The network is strong and developed but doesn't quite embody the actual extensive network of the Montpellier Hub. Actors from the traditional food value chain from producer to individual consumer are well represented but the network misses some health and nutrition-related actors. While some INRAE members have a nutritional and

epidemiological background and have ensured accountability of nutrition in our proposals, It would be beneficial to engage actors outside of the research field in order to sustain the health perspectives of the project within our Action Plan.

Restaurants and caterers are also missing actors of the network. Despite the high number of these provisioning services, only 2 actors have been identified, and none are in close collaboration. Engaging restaurants and caterers in the Montpellier living lab would help to expand connections with delivery channels and understand their role in the transition towards healthful and sustainable food. Additionally, while the Montpellier Metropolis is crucially involved in the hub, involvement of the Occitanie region remains low and a potential barrier to developing activities in a regional context. Due to the fact that Toulouse is the region's capital, efforts are not centred around Montpellier specifically.

Once decisions on the construction of the Action Plan are in place, it is certain that more organisations will be drawn to our network, and that connections will deepen.

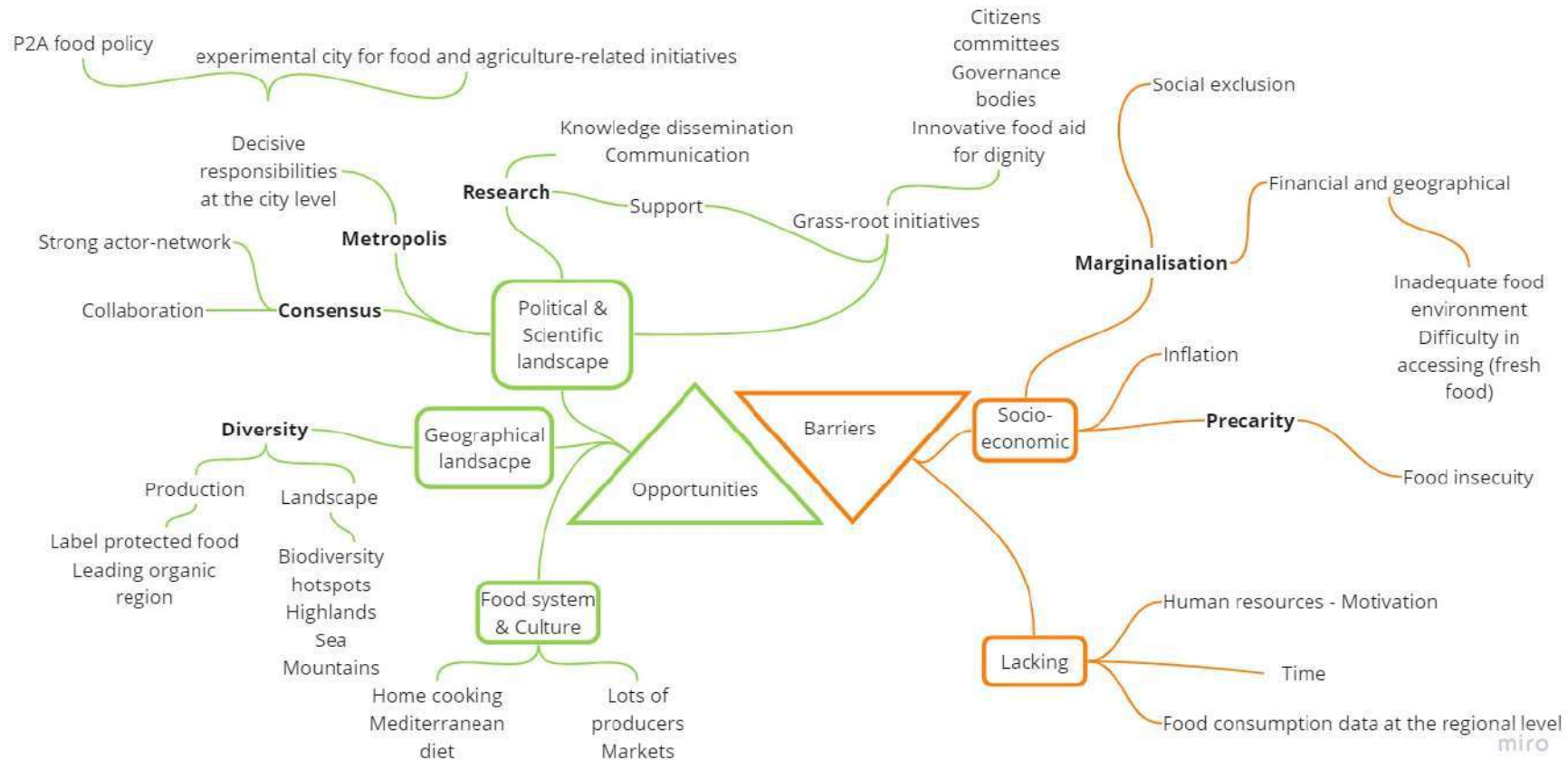
To sustain close relationships, the hub organises regular meetings with our full collaborative partners to present the progress of the project and discuss upcoming priorities. The last meeting was dedicated to presenting the current Action Plan proposal, with over 30 initiatives selected, and engaging in a preliminary reflection on the most relevant ones. Partners' agendas are also taken into account when building the Action Plan: this helps to strengthen links and to ensure sustained collaborative efforts in the project's development. With actors who are not in full collaborative efforts, some events are usually held with individual representatives of INRAE. As our colleagues are involved in a variety of projects, programmes and initiatives, the network is fed by participating in various activities of personnel interests. Montpellier has the great advantage of being a French experimental city for food and agriculture-related initiatives. Actors within the Hub already interact, engage and act together towards a general common goal of a sustainable food system, and propose countless events, programmes, and actions that gather different actors. Actors' engagement is fully ongoing.

Currently, the fully collaborative actors of the Hub (INRAE, 3M, UNESCO Chair and FAB'LIM) meet on a regular basis to sustain a minimal engagement of these actors and ensure the development.

Opportunities and barriers for healthy and sustainable eating

Insights collected for this report comes from interviews conducted with hub actors . In total, eight interviews were conducted: Six actors from the INRAE research institute including hub leader and members (sociologists, geographers, public health nutritionists and economist) and two members of the Unesco Chair. Interviews were conducted in French from October to November 2023. Expertise on the region and its characteristics and the hub and its mission was retrieved. Finally, this scheme of opportunities and barriers for healthy and sustainable eating was constructed (Figure 12). Important opportunities include the strong actor network connection and its political support towards change in the agri-food sector as well as the diversity of landscape and production. Main barriers relate to financial access to food and difficulties in overcoming food precarity for a large group of people, specifically increasing due to inflation and the Covid-19 pandemic.

Figure 12. Barriers and opportunities perceived by Montpellier Hub members



Conclusions and further actions

The historical connection between political and research actors creates a strong support for innovative interventions. Moreover, the political consensus on food and sustainability accelerates changes through policymaking and favours productive collaboration. Research actors are numerous, and their interdisciplinary work participates in creating knowledge on healthy and sustainable food systems. Very strong support for grassroots initiatives is given by all actors, working towards food governance as a response to precarity and food insecurity. There is a great opportunity to focus on these activities for SWITCH, specifically as they need monitoring and evaluation of outcomes.

Geographically, the hub presents a variety of landscapes and production, as well as high-quality food. The food culture is orientated towards a Mediterranean diet, which is known for various health benefits. Additionally, home cooking is very common. As the hub hosts many producers, there is a high number of markets that are highly frequented by citizens. The promotion of local agriculture and consumption is at a place in season, which provides the space for the creation of activities, notably for students.

Regarding barriers, financial access to healthy and sustainable food is crucial. Montpellier metropolis has a considerably precarious population and many inhabitants live under the poverty line, aggravated by the COVID-19 pandemic and recent inflation. Food aid is common but not adapted for long-term food security and not nutritionally adequate. The marginalisation of certain groups alienates them from healthy food delivery channels, both geographically and economically.

Some resources lacking create barriers, notably food consumption data that hinder researchers from creating a nutritional profile of the region. Moreover, available time appeared as a crucial factor for involvement in projects and initiatives by various actors of the hub. Further actions in this direction have been proposed, notably through the development of the communal food bank to alleviate some financial charges in precarious households. Identifying the needs of marginalised groups to adopt healthier and more sustainable diets will also be important. Finally, more time allocation to the project is planned, which will allow better management of initiatives.

4.5. Hub 5. Berlin and Federal State of Brandenburg (Germany)

Regional profile

Berlin-Brandenburg is the city-region considered when studying the regionalisation of the food system. They are two different administrative units, since they are different Federal states of Germany. The area of influence is the one affected by the whole collaborative network of food system actors (LebensMittelPunkte or LMP-Network) that form the collaborative network of food system actors, which is the entire state of Berlin. The population of Berlin is around 3.7 million, whereas Brandenburg accounts for 2.6 million inhabitants. Thus, the population of the whole city-region is around 6.3 million. Importantly, Brandenburg is a large and low-dense populated state, accounting for a population density of just 85.58/km², whereas Berlin represents an opposite case, small and highly populated, with a population density of around 4,126/km². The age distribution is also different in the

two Federal states. While in Brandenburg more than 25% of the population is older than 64 years, in the case of Berlin this figure is just 19%. The risk of poverty is overall higher in Berlin (19%) than in Brandenburg (14%). In contrast to Brandenburg, Berlin is a multicultural city where more than 800,000 people are not German.

In the case of Berlin, the city is formed by different districts, very different in terms of socio-economic and demographic conditions. These differences do not respond to geographic drivers (e.g. distance to the city centre, peripheral suburbs...), but might be due to the socio-economic and demographic features (e.g. population density, migration background). This makes Berlin a city with marked differences in terms of access to healthy and sustainable food.

While Berlin is highly urbanised, it is Brandenburg where the vast majority of the available agricultural land is located (1.310.361 ha), distributed in 5.413 farms, with an average farm area being around 240ha, the third largest one in Germany. Of the agricultural area, around a third is used by arable farming operations, a third by fodder farming operations and a third by crop production and livestock farming associations. Both Berlin and Brandenburg are overall very homogeneous in terms of geomorphology and soil conditions, being very flat, composed of sandy and low-fertile soils. The small vegetable production and other sustainable and regional food production is often sold in Berlin, despite its production taking place in Brandenburg.

Even though the area of influence is the whole city of Berlin, in the beginning of the project, it might be that some of the activities take place at the Baumhaus (LMP prototype) and, therefore, the area of influence would be primarily the Wedding neighbourhood and broader Mitte district. Another possibility will be that Baumhaus becomes the place where some workshops and other activities affecting the whole city take place (i.e. Baumhaus as "Projektbüro").

People considered marginalised

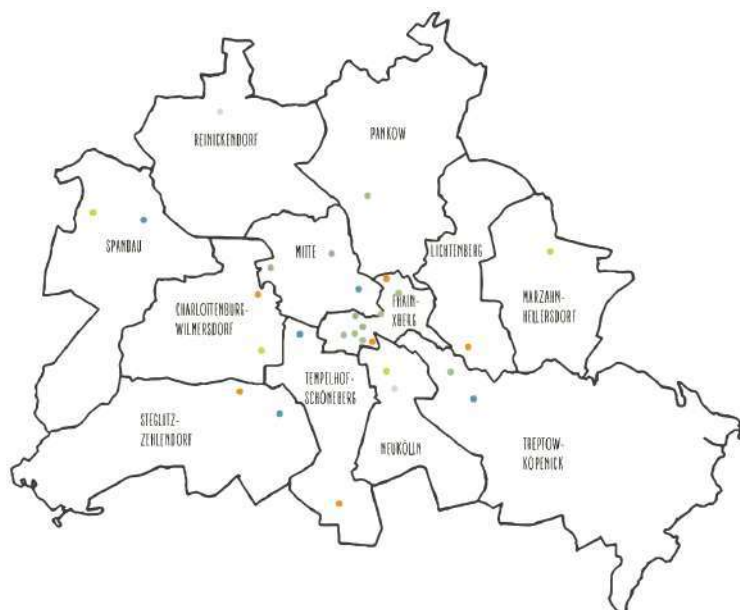
Migrants are an important group of identified vulnerable people in Berlin, each bringing their own strong food cultures, but with visible health inequalities in the city. While districts with a very high proportion of migrants or migrant-background people are the ones that achieve the lowest health quality scores, those districts where German people are majority are typically the ones that achieve higher social and health scores. Moreover, and especially since 2015, the population of refugees has increased strongly, and remains highly exposed to suffering from lack of access to healthy and sustainable food.

The Hub's characteristics and ambitions

The Berlin HUB of the SWITCH project is working with a collaborative network of food system actors called "LebensMittelPunkte (LMP)", urban food hubs (see **Table 7** for an overview). These LMPs are community centres or similar places with a special focus on food, sustainability and community cohesion, located across the city. In 2020, the network of LMP's was initiated out of a six month project by Baumhaus funded within the framework of the Berlin food policy strategy. This strategy aims to feed the people of Berlin more local, more sustainable, more healthy and (back then) with a focus on fairness.

Since then, Baumhaus is the driving force behind the overall LMP network. Das Baumhaus organises activities that include actors in the Brandenburg city-region food system. In total there are currently 27 LMP initiatives (see **Figure 13**) and more will join in 2024, each one with its own specificities in terms of activities and actors' involved.

Figure 13. Map of Berlin LMPs



Their activities vary from food sharing, cooking together to other activities related to education on health and nutrition. These community-oriented spaces focus on food system change, sustainability and neighbourhood participation and cohesion. Key objectives for the LMPs are: self-organisation, food sovereignty, healthy food for all, community-building and creativity & individuality. The idea in an LMP is that you can join activities in a food hub, you can initiate and organise an activity yourself or you can help others organise an activity. As the LMPs are a network of local hubs, information activities and initiatives can be shared and learned from each other.

Table 7. Summary of the main characteristics of the LMPs that are part of the LMP-network in Berlin

mission: the why	Accelerating food system change locally throughout building a network of food hubs in each neighbourhood as a part of the Berlin food strategy, collaborating with a broad range of local actors
key objectives: the what	<ul style="list-style-type: none"> ● self organisation ● food sovereignty ● healthy food for all ● community building ● creativity & individuality

current activities: the how	<ul style="list-style-type: none"> ● Act as a distribution point of some CSA farms from Brandenburg, where the different CSA members can get their products and engage in other activities in the food hub ● enable people, organisations and other stakeholders to join activities and/or to initiate and organise an activity themselves and/or to support others in organising an activity ● enable shared learning ● creative action ● food sharing ● cooking together → community dinners (“Küfa”). ● education on nutrition and health
characteristics of activities	<ul style="list-style-type: none"> ● valuing neighborhood ● valuing inclusivity ● organising together ● Foster urban-rural relationship and re-connecting consumers with producers
ambitions	<ul style="list-style-type: none"> ● developing one LMP per neighbourhood
opportunities	<ul style="list-style-type: none"> ● enthusiasm of neighbourhood volunteers ● engagement with local actors (farmers, community gardens, institutes, ...) ● Community Supported Agriculture (CSA) farms (SoLaWi)

The LMPs are fuelled by enthusiasm and neighbours/volunteers. Every LMP is self-organised by a team of neighbours, volunteers and community organisers, and connects the local neighbourhood with a network of different actors from regional farms and from the local food environment, providing space and activities to scale and combine existing sustainable food initiatives.

Behind this network, each LMP is also in contact with different actors in their neighbourhood, such as farmers, community gardens and local institutes for engagement. An example is with the community-supported agriculture (CSA) projects: the LMPs act as Depots for seasonal, regional and agro ecologically-grown foods from local CSA projects, located in the areas surrounding Berlin. In Germany they are known as Solawis (Solidarischen Landwirtschaft, or ‘Solidarity Agriculture’), as they provide weekly produce and goods through a solidarity-based subscription model, which also includes the opportunity to volunteer directly with the farm work. Simultaneously, a process of awareness takes place as consumers are exposed to the production process, which prevents food waste and addresses issues related to overconsumption and production. CSA farms provide opportunities to develop and scale sustainable and regenerative agroecology practices. Even though the CSA deliveries (either for the CSA members and/or the food hubs themselves) are relatively common in most of the hubs, the food hubs are very urban-oriented, currently lacking a strong connection with the rural environment (i.e. Brandenburg).

The actor network

Baumhaus' network is composed of regional food actors, local neighbours, food providers (CSA farms) and the associated members of each CSA, who go to the food hubs to pick up their shares of food. This network is directly responsible for several activities regarding regional, sustainable food systems, such as: the depot activities of several CSA farms, organising weekly or monthly community dinners (Küfas), where people from each neighbourhood can enjoy a meal prepared by volunteers and using food that partially comes from a CSA, and keeping connection with local policymakers and people working for the City Administration (e.g. Senat). Furthermore, Baumhaus develops connections with other actors in the neighbourhood, such as Food Cooperatives, shops and supermarkets, and food sharing initiatives. Moreover, Baumhaus comes from a 4-year partnership together with the Leibniz Centre for Agricultural Landscape Research (ZALF) and the Food Policy Council (Ernährungsrat Berlin), where Baumhaus has been acting as the living lab, where different activities have been tested and assessed.

At the start of the SWITCH project, the Hub leader has created an inventory of the number of actors within the Baumhaus network and the type of connection they perceive to have with these actors (see **Annex 5**). A total of 45 food system actors were indicated (**Table 6**). The largest category is made up by food providers (34%) and the smallest ones by nutritionists and healthcare providers (6.8%) and policy makers and national food authorities (6.8%). The Hub leader perceives most actor connections as characterised by 'knowing them' and 'networking with' (both 31.8%), followed by cooperation (20.5%), full collaboration (9.1%) and coordination (6.8%). The actors that Baumhaus fully collaborates with (4) are the district mayor of Mitte, Karolinengarten and Biokräuterei (CSA farms) and the overall LMP network that covers Berlin. The latter involves 27 initiatives that reach different consumer target groups, including vulnerable and deprived groups. See detailed information in the **Annex 5**.

Opportunities and barriers for healthy and sustainable eating (see **Table 8**)

Three main objectives/challenges for the LMP-network were identified:

1st challenge: Supporting the multitude of local actors of change who are already working on local solutions for sustainable diets → how to scale the existing solutions/projects/activities (i.e. scaling deep)?

2nd challenge: Supporting the local food hub initiatives, engaged citizens who want to organise healthy and sustainable food for all → how to scale the neighbourhood food hubs (i.e. scaling out)

3rd challenge: Supporting the development of the food strategy, esp. the connection/communication/focus on scientific goals → how to scale the food strategy (i.e. scaling up)

These differing levels of community and policy engagement contain a large piece of the puzzle for scaling the efficacy of the LMP Network and its activities. For instance, when it comes to existing projects and activities, a need arises for a shared set of values and definitions regarding even basic concepts such as sustainability, without which there is difficulty in setting tangible goals. Sustainability is regarded as multifaceted and refers to sustainable methods of cultivation and production, provisioning of locally sourced and seasonal products as well as to foods contributing to a sustainable way of eating and living. A lack of alignment is also perceived related to initiatives in Berlin that work toward the same objective without being aware of each other's existence. This is regarded as inefficient in terms of resource utilisation, and hence, countering a transition toward sustainable patterns. The LMP Network itself was created as an opportunity to overcome some of these challenges — to set a baseline of shared understanding for local food change actions and to build up a network where resources and knowledge can be shared across the city.

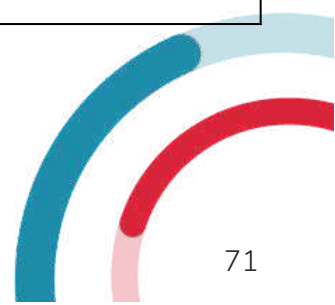
As regards scaling the food hubs (scaling out) and their reach (scaling deep), interviewees express concerns regarding the engagement of consumers that seem to be disconnected from the origins of food and the natural environment. Consumers operate within their bubble of interest, which may not include sustainable food and eating. Also, deficits are perceived regarding knowledge and time, with people opting for convenience foods and supermarket deals. Starting engagement efforts at an early age is viewed as an opportunity to counter this. Baumhaus is already collaborating with KitAs (kindergartens) and primary and secondary schools, and efforts are being made to integrate educational activities at LMPs. Another perceived opportunity is the increase of awareness among the general public and a growing demand for sustainable and locally sourced food. Consumers are becoming more interested in the origin of their food and the impact of their food choices, which is an opportunity for sustainable producers to connect with a growing market. Specifically, the LebensMittelPunkte in the Berlin region serve as spaces for fostering a sense of belonging, connectivity and ownership, the starting point for change, and together with partnerships such as community supported agriculture (CSA) or solidarity agriculture (Solawi) farms, LMPs encourage innovation and knowledge exchange, which is considered highly important for initiating change by the Hub members.

Changing food policy and enacting a viable food strategy (scaling up) poses some of the most serious challenges. Hub members perceive barriers related to bureaucracy, financial constraints and policy misalignments. This is partly due to the multiplicity of policies that exist at the European and the national level, as well as the federal state policy for Berlin-Brandenburg, and even further for specific policy at the city and local district levels (with each district having its own mayor, the *Bezirksbürgermeister*). LMPs often rely on government subsidies and support; thus, they depend on often fluctuating political contexts, and good connections with the mayors of the districts. This adds to the general lack of financial resources for scaling up sustainable food systems. Hub members also view some existing policies as contradicting sustainability goals by favouring conventional practices. Also, requirements for subsidies provided by the EU may differ from those included in local policy guidelines. They view there is enough policy, yet not specifically on promoting healthy and sustainable food systems.

Despite the challenges posed by existing policies, Hub members recognize opportunities for advocacy and policy reforms. They emphasise the need for collective efforts to influence policymakers and advocate for sustainability focused policies, such as a food strategy. Hub members are aligned with the scope of the issue and the need for change, and know their role and position in food system change. They perceive activism as a key driver of their work, illustrated by one Hub member saying, ‘*People sharing food together is one of the strongest political actions. Because you don't have to fight over some ideology - food can transcend that in-fighting.*’ The concept of an Alternative Food Network (AFN), centred around agroecology and soil regeneration, is perceived as an alternative to extractivist food systems. AFNs aim to establish a system resilient to natural or other potential shocks and challenges that could impact food production, including factors like oil and gas availability. Baumhaus is striving to align with the principles of AFNs; however, a lack of policy and monetary support is currently limiting the possibility to construct a foundation solely based on this structure, leaving further work to be done.

Table 8. Overview of perspectives of Berlin Brandenburg Hub members on barriers and opportunities for sustainable change

<i>topic</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
Meaning, understanding and actionability	<ul style="list-style-type: none"> - diversity in defining sustainability hinders setting tangible goals 	<ul style="list-style-type: none"> - rewording term sustainability to reflect reality - Hub members align on need for change - Hub members are aware of role and position within the food system
Policies	<ul style="list-style-type: none"> - multiplicity of policies - policies at different levels not aligned - policies supportive to non-sustainable practices - requirements differ per policy (e.g. EU versus district policies) - government top-down approach separate from grassroot level initiatives 	<ul style="list-style-type: none"> - increasing collective action and advocacy for policy reform
Finances	<ul style="list-style-type: none"> - lack of financial resources for scaling up sustainable food systems - lack of financial resources to build alternative food system - LMPs rely for budget on fluctuating political context 	<ul style="list-style-type: none"> - some of the hubs become living labs, thus providing information on the actual outcomes of the LMP-network and, therefore, allowing the activists for applying for funding at different administrative levels (city/national/international)



<i>topic</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
Engagement	<ul style="list-style-type: none"> - consumers disconnected from food and nature - low engagement of consumers that merely prioritise convenience due to lack of interest or time - consumers lack knowledge - lack of alignment of different sustainable initiatives leads to unsustainable use of resources 	<ul style="list-style-type: none"> - increase of consumer awareness, interest in origin of food and demand for sustainable and locally sourced food provides growing market for sustainable producers - LMPs foster sense of belonging, connectivity and ownership - partnerships (LMPs, CSA's) encourage innovation and knowledge exchange - Hub activities engagement children at early age (daycare, schools) - integrating education in LMP activities
Power structures	<ul style="list-style-type: none"> - influence of major corporations counter sustainable transformation 	<ul style="list-style-type: none"> - develop Alternative Food System (AFN)

Conclusions and further actions:

The Berlin-Brandenburg hub is composed of two very differentiated areas. While the majority of the production is located in Brandenburg, the LMP-network affects only Berlin. This creates inequalities between Berlin and Brandenburg while fostering access to sustainable and healthy food.

Nevertheless, the scaling (deep and out) of the LMPs in Berlin in the following years will lead to an increase in the demand of agroecology-based products and, thus, might foster the creation of more agroecology-based farms in Brandenburg aimed at providing a wide range of products to be consumed regionally. This has a strong contrast compared to the current situation, where agricultural land in Brandenburg is typically covered by large monocropping systems. Moreover, this could benefit people from Brandenburg, since the production would be much higher and, therefore, part of it could be dedicated to feed Brandenburg's population.

Considering the city of Berlin, the increase and diversification of the activities developed by the food hubs (scaling deep) will increase access to regional sustainable and healthy food at the neighbourhood level, allowing the food hub to target some of the activities to specific vulnerable groups in the neighbourhood (e.g. the activities in schools and kindergartens). Furthermore, the scaling out of the LMP-network will allow more citizens in Berlin to have access to this agro ecologically-produced food and, furthermore, to have access to a space where they can meet, increase knowledge and connection to food.

There are barriers difficult to overcome, such as policies and regulations, some of them arising from the fact that two Federal states are involved. However, barriers related to lack of knowledge and engagement from food citizens in the city would be relatively easy to overcome, since they are the target of most of the activities developed by the food hubs.

Regarding financial sustainability, it is unclear if there is a common solution for all the food hubs, since each one has its own nature, context and specificities. However, as it has been proven during the previous project, FoodSHIFT2030, the fact that some of the food hubs will act as living labs will be key to provide evidence on the outcomes of the LMP-network in the whole city-region.

Therefore, three-dimensional scaling (deep, out and up) of the LMPs, plus some of the food hubs becoming living labs would allow the LMP-network to overcome most of the identified barriers. Very importantly, the fact that each LMP has its own specificities and is adapted to the context of the neighbourhood would allow the LMP-network to develop activities that are targeted to generate specific outcomes (e.g. increase access to regional sustainable and healthy food for vulnerable groups).

4.6 Hub 6. Gothenburg and Vastra Gotaland region (Sweden)

Regional profile

The city of Gothenburg is located in the southwestern coast of Sweden in the Västra Götaland region, which has both urban and rural areas. Gothenburg is located where the Göta river flows into the Kattegat, which is a part of the North Sea. It has many islands, the archipelago, which consist of rough, barren terrain with cliffs and rocks²⁴. Gothenburg has an oceanic climate with mild temperatures which is due to the influence of the Gulf Stream. The city has many green zones including parks, horticultural gardens, nature reserves and other green areas²⁵. Thanks to the right of public access²⁶, everyone in Sweden is free to explore the Swedish nature, with the exception of private property or agricultural land²⁶. These areas not only provide the citizens a beautiful space for a stroll or to take up some exercise, but they also connect to social and cultural needs; festivals are hosted in parks, there are playgrounds for children, café's to socialise in, there is an "open zoo" in which different animals can be visited e.g. penguins, seals, and moose, and the Museum of natural history is located in a park as well²⁷. The city centre is well-connected to the more metropolitan parts by busses, trams, and trains. There are initiatives for sharing cars, bikes, and electric scooters. Gothenburg is connected to the northern and southern archipelago by ferry boats²⁸.

The city has its history as a Dutch trading colony. In the 18th century fishing was the most important industry, but after the Swedish East India Company was founded, foreign trade became most important and the city flourished²⁹. Nowadays the Port of Gothenburg remains the largest port in the Nordic countries. Manufacturing and industry have played a

²⁴ Goteborg&Co (n.d.) *Gothenburg guide 2022-2024 English*.

http://cms.goteborg.com/uploads/2022/08/2022-2024_ENG_GbgGuiden_Webtillganglig.pdf

²⁵ Goteborg.com (n.d.) *Nature & Sports*. (Retrieved on 2023-11-21).

<https://www.goteborg.com/en/nature-sports>

²⁶ Goteborg.com (n.d.) *The right of public access*. (Retrieved on 2023-11-21).

<https://www.goteborg.com/en/guides/the-right-of-public-access>

²⁷ Goteborg.com (n.d.) *Tourist attractions*. (Retrieved on 2023-11-21). <https://www.goteborg.com/sevardheter>

²⁸ Goteborg.com (n.d.) *Get around town*. (Retrieved on 2023-11-21).

<https://www.goteborg.com/guider/ta-dig-runt-i-stan>

²⁹ Goteborg.com (n.d.) *Gothenburg's history and heritage*.

<https://www.goteborg.com/en/guides/gothenburgs-history-and-heritage>

major role in the contribution to the city's wealth as well, with companies such as SKF, Volvo, and Ericsson.

Gothenburg is the second largest city in Sweden with a population of around 600,000 inhabitants in the city centre and 1.1 million inhabitants in the metropolitan area surrounding Gothenburg³⁰. The age composition of the population in Västra Götaland is similar to that of Sweden as a whole. Almost a fifth of the inhabitants of Västra Götaland are currently 65 years or older, and 5.1 percent are 80 years or older. In both the country and Västra Götaland, just over 60 percent of the population is of working age (18-64 years). The average life-expectancy is similar over the different regions in Sweden and is 81 years for men and 85 years for women. A recent regional survey in March 2023³¹, based on official statistics and questionnaires of Västra Götalandsregionen, shows that 7 out of 10 men and women in Västra Götaland rate their health as good/very good. There is a difference in perception about health status for socio-demographic factors; in addition to gender and age a low health status is found with economic hardship, pre-secondary education, severe disability, substance abuse problems, single parent with children, lack of emotional support and involuntary loneliness. There is also a big difference for health between different areas in Gothenburg which is related to socio-economic factors. Half of the residents of Västra Götaland region are overweight or obese³². Obesity is most common in the over-45 age group, where it affects one in five compared to one in ten in younger age groups (16-29 years). In the municipality of Gothenburg the at-risk-of-poverty rate was 16.6 percent in 2021 and the percentage of households with a high economic standard was 7.6 percent³³. There are key figures to support the implementation of the 2030 Agenda. The percentage of residents with low economic standards in the municipality of Gothenburg is 21% for the age group of 0-19 years, 15% for ages 20-64 years, and 16% for ages 65 years and above³⁴.

In Gothenburg municipality there are approximately 174.000 foreign born persons (30% of the total population) from 184 countries (year 2022)³⁵. The countries with the highest number of immigrants (>4000 persons) are Iran (13307), Iraq (12938), Somalia (9893),

³⁰ SCB. (2023, July 10th). *Göteborg över 600 000 invånare – och Sverige har fått en ny minsta kommun* <https://www.scb.se/pressmeddelande/goteborg-over-600-000-invanare--och-sverige-har-fatt-en-ny-minsta-kommun/>

³¹ Dale, Allen, 2023-03-01, Hur mår invånarna i DRN Göteborg. [PowerPoint slides].

³² The Council for the Promotion of Municipal Analysis Kolada. (n.d.) *Agenda 2030 - Global goals for sustainable development*. (Retrieved on 2023-11-21). <https://www.kolada.se/verktyg/jamforaren/?focus=27504&report=130290&row=gender&type=region>

³³ SCB. (n.d.) *Income inequality indicators by region, type of income, observations and year* (Retrieved on 2023-11-21) https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__HE__HE0110__HE0110F/TabVX1DisplnkN/table/tableViewLayout1/

³⁴ The Council for the Promotion of Municipal Analysis Kolada. (n.d.) *Agenda 2030 - Global goals for sustainable development*. (Retrieved on 2023-11-21). <https://www.kolada.se/verktyg/jamforaren/?focus=27504&report=130290&row=gender&type=region>

³⁵ SCB. (n.d.) *Population by region, region of birth, sex and year*. (Retrieved on 2023-11-21) https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START__BE__BE0101__BE0101E/FolkRegFlandK/table/tableViewLayout1/

India (9392), Syrian Arab Republic (9390), Bosnia and Herzegovina (7163), Poland (6039), Türkiye (5699), Yugoslavia (5603), Finland (5303), China (4585) and Afghanistan (4004).

The Hub's characteristics and ambitions

The food hub in Gothenburg was created officially in 2023 with the Research Institute of Sweden (RISE) and Chalmers University of Technology as main starters of the hub. Both RISE and Chalmers have worked on developing scientific research, gathering data, and sharing knowledge through education, networks and development of tools that actors can use in order to support specific target groups. RISE has several years of experience of collaborating with policy-makers, the food sector, and the public meal sector. Both institutions excel at research and have independently of each other done many research projects together with companies and institutions focused on innovation, technology, sustainability.

Since the food hub was started up at the beginning of 2023 it has focussed on finding its purpose, mission, and their values and since then, the hub has come far in establishing their identity. The grand purpose of the hub mainly revolves around creating a collaborative and inspiring space for establishing partnerships with actors within the regional food chain, public sector and civic society. The hub recognises that people have mainly been working in their own pillar of research and that the time has come to bridge the gap between different disciplines. That is why the focus of the hub lies on using all of the knowledge that actors have gathered around health and sustainability and to be able to develop new action-based research.

The project team consists of the hub's "core team" which are three employees from RISE (with additional support from seven experts) and two researchers from Chalmers. The urgency for transitioning to a more sustainable food system with healthy foods is felt in the team; the common mission has brought together a wide range of experts that consists of three expert in the fields of nutrition and health, two experts on behaviour change, four experts on sustainable food and environmentally friendly food systems, one expert in working in the public meal sector, one expert on food skills and communication, and one expert in digital tools.

The team has been able to come up with and communicate 4 concrete and ambitious missions that the hub is dedicated to as well as an overarching goal for 2027:

1. Increase the intake of vegetables, legumes and whole grains;
2. Increase the intake of sustainable seafood;
3. Reduce the intake of red meat and salt; and
4. Reduce the overconsumption of discretionary foods.

The overall goal is to have healthy food for everyone within the planetary boundaries. By 2027, the goal is to have twice as many inhabitants of Gothenburg eating healthily and sustainably.

The actor network

At the start of the SWITCH project (February 2023), the Hub leader created an inventory of the actors within the Gothenburg and Västra Götaland region network and the type of connection they perceived having with network members. A total of 54 food system actors were indicated. The largest category is made up of policy makers and national authorities (28%) and the smallest ones are the nutritionists (9%), citizens (6%), and media (each 2%) categories (see **Table 7, Annex 5**). The hub-network at baseline has been shaped out of pre-existing networks and relationships that the project-team members within RISE and Chalmers have with institutions, organisations, companies, policy-makers and individual actors. This baseline also indicates actors that the hub considers to create a connection with in the future.

On the 18th of October 2023, the Gothenburg hub organised their first official actor event: the launch of the food hub. The event was held at GoCo Health Innovation City, which is a newly constructed district where companies, organisations, and individuals working in life science and health are being brought together. With this event, the food hub aimed to introduce the SWITCH project to the actors in the local food system and to inspire and mobilise them to contribute to the next phases of the project. The activities and workshops during the event were based on the theory of salutogenesis and had the aim to understand why the actors find the transition to a healthy and sustainable food system important (Meaningfulness), how they define a healthy and sustainable food system (Comprehensibility), and what resources or assets they have to offer or need to be able to contribute to this transition (Manageability).

During this event around 70 individual actors from 43 different organisations were present and participated in the activities: they reflected on what food they would want to see on their plates in the future, they filled in the forms related to the SOC components, they listened to the panel and asked them questions, and they went around the room to add comments with barriers, opportunities and drivers for the four identified Hub missions. For the shared lunch at the event location a local chef made a healthy and sustainable vegan dish for the participating actors.

The event had a positive atmosphere; actors were engaged during the talks and the panel discussions, asked many questions, took the time to talk to each other, and shared stories about their experiences with food both from their professional background as well as their personal background. Many actors mentioned that they were glad this event brought them in contact with other actors in the food system. Many actors stayed until after the end of the event to network and talk with others.

A large amount of data was obtained at the event and analysed using Atlas.ti to locate barriers and opportunities for healthy and sustainable eating. These barriers and opportunities are presented in the next section. To conclude this section, some photos made during the event are presented to show the atmosphere of the event (**Figure 14**).

Figure 14. Impression of the launch of the Gothenburg hub event



Opportunities and barriers for healthful, sustainable eating:

The overview of opportunities and barriers is visualised in **Figure 15** and is based on the perceptions of actor that attended the event that was held on the 18th of October 2023 (see **Annex 16** for the outline of the event).

During the event, actors shared **barriers** they perceive during their journey of engaging in the transition towards more healthy and sustainable food systems. Themes identified relate to economy and market factors, the socio-cultural landscape, policy and regulation, communication and guidelines and resources:

1. **Economic and market factors** regard systemic issues and include a lack of insight in supply and demand of plant-based foods and seafood; on the one hand, procurement for small producers is difficult and when demand is low, investing in new sustainable infrastructures is too costly; due to small businesses lacking financial support to scale up their production, local food produce is too low and much foods are imported; regarding demand, unhealthy foods are often relatively cheap and more accessible than plant-based foods and seafood.

-
2. **Socio-cultural landscape** relate to multiple barriers and include *unfamiliarity* with seafood, legumes and plant-based foods leading to people having limited preparation skills and sensory issues (smells, textures, taste); plant-based foods also have a negative image including not being satisfying, not tasty, boring and not being real foods for humans; conservative attitudes towards changing food habits, especially when it regards unfamiliarity with novel foods is another barrier.

Barriers also relate to *norms* and include gender norms with meat being seen as masculine and required to be strong and healthy; meat replacers are advertised towards women and more associated with being female; norms also regard what to eat at which location, with sugary, carbonated drinks and fatty snacks to be eaten in entertainment locations; restaurants are often associated with quality and luxury products and treating yourself, which matches with eating meat and discretionary foods rather than healthful foods.

Health and nutrition regarded the switch to a more healthy and sustainable food system means eating foods with a different nutrient profile; eating plant-based foods with lower bioavailability may be perceived by consumers as not fitting a healthy diet; another barrier is that dietary recommendations are not solely communicated by formal institutions, which has changed public views on what is considered healthy; an increasing number of people adopt new 'alternative' diets or try to avoid e.g. carbohydrates or gluten; risks related to food safety due to human influences on the environment (e.g., microplastics and toxins in fish) are another perceived barrier.

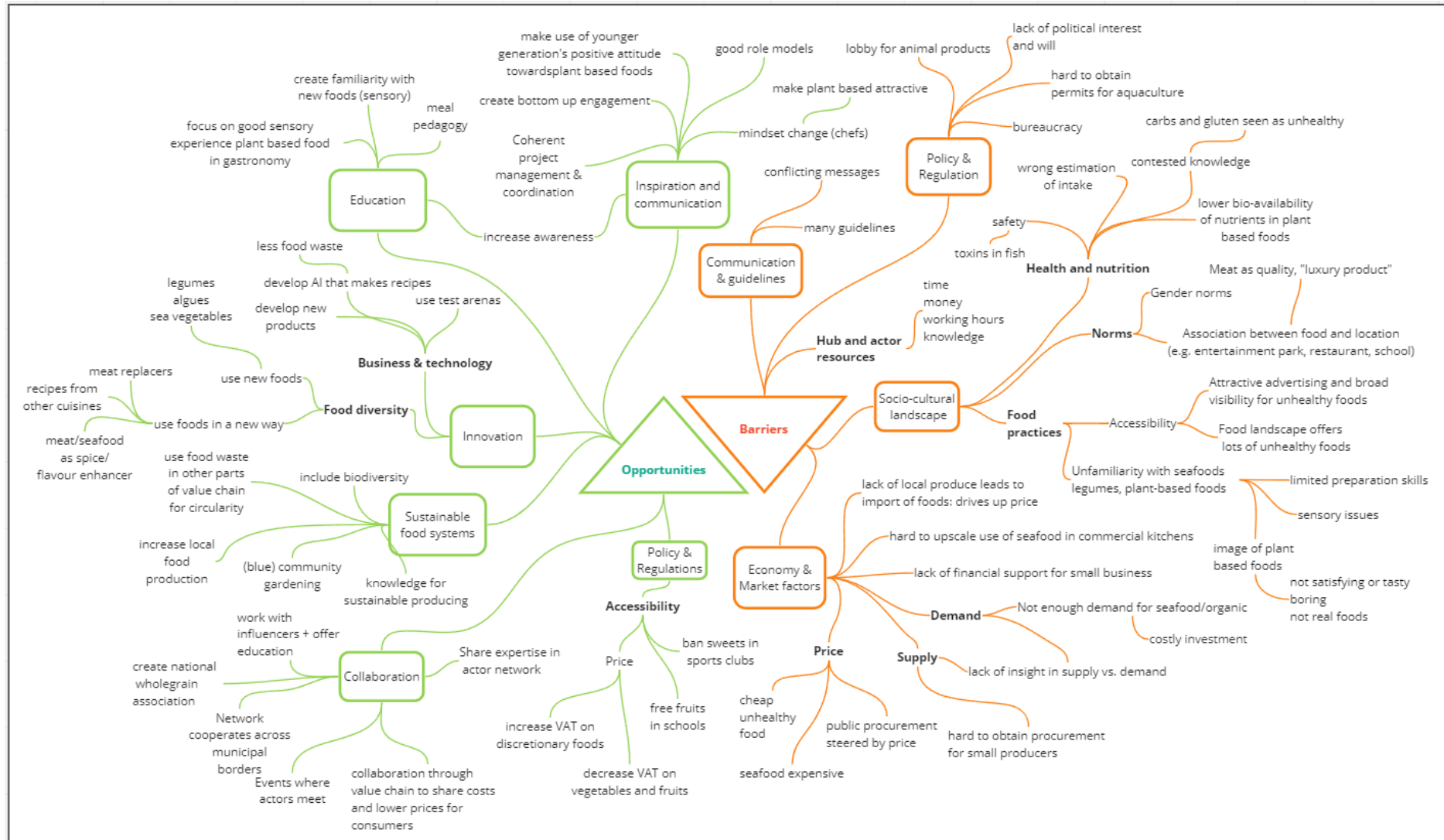
3. **Policy and regulation** relate to a lack of political interests and will to focus on healthy diets and sustainability; also, bureaucracy and the tedious process of obtaining permits, specifically for aquaculture is a barrier; lastly, the lobby for animal products is perceived as hindering the mission of reducing meat consumption.
4. **Communication and guidelines** relate to conflicting messages broadcasted by official institutes and organisations and the difficulty of gaining overview of the multitude of guidelines and projects that operate at the same time.
5. **Resources relate to** the actor's perception that many resources are available yet a shortage of time, working hours, money and expert knowledge is a barrier to actual change.

During the event the actors were also asked for perceived **opportunities** regarding the change to a more healthy and sustainable food system. From their answers, we extracted six different themes: They relate to policy and regulations, collaboration, sustainable food systems, innovation, education and inspiration and communication. The themes relate to perceived barriers and hence, can be resources to overcome these barriers.

1. **Policy and regulations** relates to accessibility of foods which is perceived as an opportunity to ban discretionary foods at for example sports clubs and to provide free fruits in schools; is also relates to influencing store food prices through changing taxes, e.g., an increase of tax on discretionary foods and a decrease on vegetables and fruits.

2. **Collaboration** relates to sharing expertise in actor networks or collaborating with actors throughout the value chain to share costs and lower prices for consumers; actors regard it valuable to meet with like-minded actors to network and share ideas to be able to move forward; a concrete example is to network and cooperate across municipal borders or to collaborate with influencers on social media and have their help in dispelling food myths; to ensure the sharing of correct information, courses or education about healthy and sustainable foods could be provided to influencers.
3. **Sustainable food systems** relates to food production and technology; actors perceive it an opportunity to focus on knowledge available to increase sustainability of producing food, e.g., biodiversity and circularity by using food waste in other parts of the value chain; to foster self-reliance, actors perceive the increase of local food production and using resources available in the regions, such as seafood, is important. At community level, blue and green community gardening was perceived as an opportunity, which means communal efforts to take care of a plot of land or a small pond to grow your own food and be more self-reliant as a community.
4. **Innovation** specifically regards food diversity, business and technology; opportunities were perceived in new ways of meat replacers production, using recipes from other cuisines and using meat or seafood as a spice or flavor enhancer instead of as a main part of dishes; opportunities also relate to using less well-known foods such as legumes, algae and sea vegetables which may provide new business opportunities; actors perceived this as a way to establish their brand as frontrunners and develop new products, with test arena's offering try-outs by taste panels; Also, artificial intelligence was viewed as an opportunity for reducing food waste by creating recipes based on left-overs in the fridge, dietary needs and other relevant information.
5. **Education** relates to creating familiarity and acceptance of new foods, smells, tastes and textures and healthy and sustainable foods in general which can be done by using meal pedagogy in and outside of the education system; meal pedagogy uses examples related to foods and everyday life skills such as growing, shopping for, preparing, cooking, tasting, and disposing of food; restaurant kitchens can focus on providing good sensory experiences with novel-, plant-based and seafood.
6. **Inspiration and communication** relates to inspiring the general population to change their behaviour; opportunities were viewed in reframing sustainable food transition for chefs from a mandatory change and limitation to a challenge of their culinary skills, which may resonate with meaningfulness within their work; chefs that perceive plant-based foods as a creative opportunity, may provide tasty, attractive plant-based meals that invite customers to try these out; young chefs that are part of the younger generation with a positive attitude towards plant-based foods may serve as role models; reminding parents that they are important role models for their children and other people around them was also an indicated opportunity; at systems level, bottom up engagement and support for grassroots initiatives is important, as well as coherent project management and coordination to make sure that people are aligned, inspired and working together towards the common goal of transitioning to a more healthy and sustainable food system.

Figure 15. Barriers and opportunities towards engagement in healthful, sustainable food and eating perceived by Swedish actors



Conclusions and further actions

Based on data gathered at the actor event, many opportunities and barriers were identified in the food system of Gothenburg. Systemic challenges for the food system such as (lack of) accessibility to foods, lack of supply or demand for foods, financial and regulatory difficulties for small businesses, as well as bureaucracy and lack of political interest in change pose serious barriers. Other important barriers related to the socio-cultural landscape such as conservative food practices, unfamiliarity with novel foods, contested health knowledge, and norms in society contribute to resistance to change as well. To be able to transition to a healthy and sustainable food system these systemic, sociocultural, and individual barriers have to be addressed.

The opportunities that were identified related to the aforementioned barriers and proposed focus points to help the transition forward. These opportunities present themselves on a systemic, community, socio-cultural, and individual level and are interconnected. Special emphasis is placed on the educational system in which familiarity and pleasurable sensory experiences with novel foods need to be created in the young generation through hands-on experience and experiential learning. It is needed to inspire new and older generations to create a mindset change, to create engagement with the cause of health and sustainability, and to step up and be a role model. Opportunities for collaboration and alignment between actors in the food system were also seen, such as collaborating through the value chain of product production, cooperating across municipal borders, and creating a shared agenda or a national association. Innovations in food product development were mentioned as well as diversifying the use of existing foods. Lastly, financial and regulatory changes are needed to support the actors in making the aforementioned changes. Because of the interconnectedness of the opportunities it is necessary to use a holistic approach to make use of the opportunities that have been presented.

The food hub's first interactive event with stakeholders can be seen as the start of further development of the hub. The obstacles, opportunities and driving forces identified during the event represent those who participated. Of course, the picture could have been different with other participating actors. Thus, this initial mapping is not an absolute truth and must be interpreted with caution. However, we see it as a good starting point for continued dialogue and collaboration with more stakeholders in the region.

The next step for the hub will be to invite people to a webinar in December where we will summarise the results of the event and present a plan for the way forward. We will continue to invite more actors to collaborate with us to get as complete a representation of the food system in the region as possible.

Our way forward will be to form thematic working groups based on our four missions, led by experts from Chalmers and RISE. In these working groups, we can then, as a next step, begin concrete planning for activities and test pilots based on current research and knowledge in health and sustainability, the actors' ideas, identified needs and Switch's overall goals. The first meeting for the working groups will be at the end of February, a live actor event with current and new actors to make activity plans.

We will further need to explore challenges and opportunities for vulnerable and marginalised groups. Our ambition is to ensure that activities and pilot tests are inclusive of different socio-economic groups so that the transition is fair and accessible to all. In our region, as in the rest of Sweden, it is a major challenge to reach out to those in society who have the highest rates of poverty and health. We hope that together with our stakeholders we can find ways and strategies that make a difference for those who need it most. If we reach this and find working models that can be scaled up, Switch can have a very positive impact on both society and the individual.

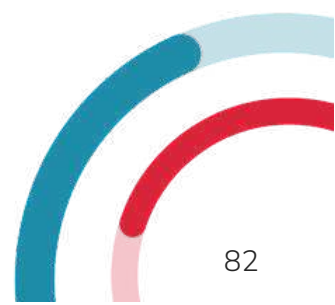
5. Summary

Actor engagement process

The internal project activities that were held during 2023 have provided co-learning elements, which are summarized in **table 9**.

Table 9. Summary co-learning elements embedded in SWITCH internal project activities.

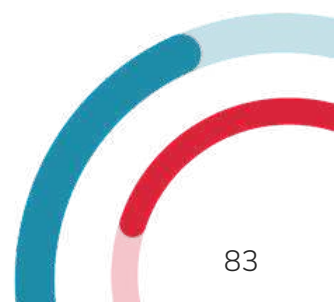
Activity	Co-learning elements
Rome kick off meeting	<ul style="list-style-type: none"> ● Asset mobilisation: Participants reflect and write down what are their assets ● Team building: Groups of partners interact and discuss fundamental contents and goals for SWITCH ● Outcomes of co-learning: (1) Recognition of the regional value (specificities) of the Food Hubs and need to assess diets per group including vulnerable groups (2) Models of sustainable and healthy diets will be proposed (3) activities/innovations (Living Labs = a series of activities in place in the Food Hubs) will be suggested and implemented in the Hubs and see if/what people respond, to understand which are the potential drivers and barriers and measure the achieved shift.
Actor network analysis	<ul style="list-style-type: none"> ● Actor mapping: Offers a roadmap that can be used to strengthen and expand existing connections and explore options for collaborating with new actors



First food hub workshop	<ul style="list-style-type: none"> ● Linking SWITCH with hub activities: Hub members indicate how their existing activities fit with SWITCH activity criteria ● Actor engagement process step 1: Hubs indicate the type of connections for a selection of actors ● Actor engagement process step 2: The salutogenic interview method was shared. Hubs can use it to capture the perspectives of regional actors on the purpose of changing towards more sustainable food (meaning), what sustainable food means (comprehension), and resources they need to participate in this change (actionability) ● Scenario exploration to enhance internal co-learning within the project: (1) Hubs responded to the question ‘what can happen’ in a (near) perfect project situation (2) Hubs responded to the question ‘how can a situation be improved when many things go wrong’
Second food hub workshop	<ul style="list-style-type: none"> ● Application of the Ego-Other-Eco Empathy Model: Hub members reflect and learn how to apply the model within activities with their actors. ● Weekly hub meeting initiation: Hub members exchange experiences and questions to foster mutual learning and a sense of togetherness.
Third food hub workshop	<ul style="list-style-type: none"> ● Co-learning discussion: Project partners discuss the SWITCH Food Hubs, the upcoming tasks regarding activity development and the alignment between SWITCH WPs.
Hub inventory	<ul style="list-style-type: none"> ● Establishing a shared baseline and understanding of hub contexts in relation to SWITCH: (1) Capture the context in which Hubs shape their actor engagement process; (2) Facilitate common understandings between SWITCH Work Packages; (3) Facilitate the co-creation process as Hubs have a better ideas of the local opportunities and barriers; (4) Build and invest in mutual relationships between Hubs and their actors.

Barriers and opportunities

The engagement activities during the first year indicated a multitude of barriers and opportunities that are perceived to hinder actionability within the SWITCH Hubs and their regions. A first set of factors relate to the outline, structure and communication of the project itself. The second set relates to socio-cultural, economic, political characteristics of the regions.



1. Barriers and Opportunities in relation to the SWITCH project

Barriers

- Lack of time and resources, e.g. stakeholder fatigue, stressful timetable, hard deadlines, missing days
- Lack of time management with stakeholders, e.g. planning helps, realistic timelines, monitoring
- Lack of visibility of the activities: communication must be creative and planned from different angles, e.g. concerning language, media, tools, scenarios, creativities
- Difficult prioritisation: review, iterate the plan, share doubts, use template, organise ideas, activities
- Lack of time or resources: translation can be time consuming; lack of financial resources to do all the activities
- Process: No clear and structured info/planning; colleagues leaving the project
- Outcomes: Results not useful
- Engagement challenges:
 - Onboarding: hard to engage actors and as a result, their engagement is limited
 - Ongoing: actors become less motivated over time; don't participate regularly, leave project;
- Perception of benefits: Actors don't see the benefit in participating resulting in actors leaving the project
- Lack of representativeness: Some actors are involved but it is hard to get a representation of the whole food system and important actors are missing
- Participatory approach pitfalls: approach is not truly participatory, actors not involved in development of activities

Opportunities

- Assets Hub leaders perceive as important to the effectiveness of the forthcoming SWITCH activities: passion, interaction, patience, transdisciplinary, adaptability, synthesis, appetite, thinking differently.
- Implementation of different types of meeting:
- Regular meetings with WP5: These may have different aims including (a) co-creating, (b) sharing updates & checking-in, (c) thematic meetings on different themes to spark inspiration
- Horizontal meetings with other hubs: The purpose is to share advice and experiences and get inspired
- One on one talks and coaching between hubs and management
- Project management tweaks:
- Better communication between management and hubs
- Fewer heavy surveys to collect data
- Clear timeline/planning including a known and accessible location where it is posted
- Clarity on what is expected: co-creation paired with guidance on process
- Importance of communication and demonstrating benefits: Ways to do this could be for example: break the silos by inviting them to see what is happening in other hubs)
- Increase exposure: create an event about food with media
- Think of alternative ways to implement activities
- Provide incentives: make incentives for partners in exchange for participating in SWITCH

2.

3. Overview of perceived socio-cultural, economic, political and communication barriers within the regions

	Socio cultural	Economic	Political	Communication
Hub 1. Rome	Loss contact with origins Lack motivation Busy lifestyle Little food, environmental education Lack knowledge food production	Economic crises, increase prices Lack of economic interest Low support for local, small businesses/producers	Lack of political interest	Lack of or bad information to consumers
Hub 2. Cagliari	Lack connection with territory erosion of cultural identity Inertia, scepticism, lack openness and flexibility weak social ties	Influence large corporations Low food sovereignty Lack regional certified products High import Low generational turnover in agriculture	Public administration (bureaucracy, inadequate agricultural policies and competence.	
Hub 3. San Sebastian	No connection with food providers Urban lifestyle Buy mainly imported foods	Low food sovereignty Rising inequalities Rising food prices Lack of organic agriculture Power imbalances between actors	Ways of communicating with the population	No common definition SHF* and vulnerable groups Different vision
Hub 4. Montpellier	Marginalisation: social exclusion, Low geographical, economic access to SFH	Food insecurity with fFood aid not adapted to long term food insecurity		
Hub 5. Berlin	Disconnected from food, nature Low consumer engagement (interest, time, knowledge)	Major corporations hinder transforming to sustainable, healthful food No financial resources for scaling up Budget depends on fluctuating political climate	Multiplicity, not aligned policies Support non- sustainable food Governmental top-down approach separate from grassroot initiatives	Diversity in defining sustainable, healthful food Lack of alignment SFH initiatives
Hub 6. Gothenburg	Unfamiliarity with regional foods Negative image plant-based foods Conservative attitude to change Eating out associated with unhealthy foods Alternative diets	Low local food produce High food import Cheap, easy accessible unhealthy food Investing in SHF costly (infrastructure, production)	Lack policy interest and will regarding SHF Bureaucracy (permits) Lobby animal products	Conflicting messages Multitude guidelines, projects

*SHF = Sustainable Healthy Food

Overview of perceived socio-cultural, economic, political, collaboration and communication *opportunities* within the regions

	Socio-cultural	Economic	Political	Physical environment	Collaboration and communication
Hub 1. Rome	Raise awareness Value food traditions, cultural heritage Tap into territorial knowledge (chefs) Leverage regional food diversity	create favourable economic conditions New agri-food companies with technological skills Use relative cheap rentals at food markets	Supportive policies Institutional Interest in reviving local markets School canteen policies to favour SFH	Access variety local, organic produce through supportive Infrastructure, food markets, retailers, restaurants Parks, urban gardens, rivers, waterways Diverse regional landscape	Tap into interest of activists, voluntary association, neighbourhood committees Advocacy by individuals and communities Invest in human relations (producer-consumer) Join existing projects, activities, events
Hub 2. Cagliari	Valorise territory and culture Centralise to food, food related wellbeing Raise knowledge and awareness Engage and give responsibility, meaning to people Promote appreciation of simplicity, natural, gastronomic and socio cultural resources	Create, strengthen short supply chains (bio-districts, farmers markets); Diversify professions (multifunctional activities);			Foster trust, honesty, empathy, willingness to listen, common goal Form, cultivate relationships and social networks Collaborate with grassroots initiatives, schools, associations and consortia, institutions Strengthen education system Provide experiential learning, storytelling Coherent and clear information
Hub 3. San Sebastian	Relevant local gastronomy (labels, chefs, products, socio-cultural) Sense of identity of local Different cultures = different change paths Social recognition of change necessity				Diverse multi-stakeholder projects, initiatives Actors use different strategies to foster transition Wide variety of actors Promotion of local agriculture and consumption

	Socio-cultural	Economic	Political	Physical environment	Collaboration and communication
Hub 4. Montpellier	Support grassroots initiatives Home cooking is common		Decisive responsibility at city level: political consensus on SHF, experimental city food, agriculture Favours collaboration Connection political and research actors Diverse: production and landscape	Available high quality food Many food producers and markets Food markets often used	Research: knowledge dissemination and communication, support to grassroots initiatives (citizen committees, governance bodies, innovative food aid for dignity)
Hub 5. Berlin	Rewording sustainability to reflect reality Increase consumer awareness to provide market for local producers LMPs foster sense of belonging, connectivity, ownership	Assessment insights Hub activities allows for funding	Increase collective action and advocacy for policy reform		Partnerships encourage innovation and knowledge exchange Hub activities engage young children Integrating education in LMP activities
Hub 6. Gothenburg	Meal pedagogy to create familiarity, acceptance regional foods Restaurants provide sensory experiences Reframe sustainability for chefs as creative challenge Young chefs and parents as role models	Business opportunities (meat replacers, meat and seafood as flavour enhancer, legumes, algae, see vegetables) AI to reduce food waste by left-over recipe creation Foster self-reliance by increasing local production and communal food growing and fish farming	Limit accessibility of unhealthful foods Taxation strategies		Bottom up engagement and support for grassroots initiatives Coherent project management and coordination to ensure alignment between actor Collaborate with influencers to dispel food myths Knowledge available to increase SHF production

6. Conclusions and recommendations

The following observations and related recommendations were extracted from the actor engagement process based on workshops, internal discussions and the results of the co-design activities:

- **The importance of establishing a common ground:** Fostering a shared common ground, aligning our visions, and collaboratively outlining the steps to achieve our goals across the different project levels are key ingredients for building coherence and minimising frustration.

Recommendations: Invest time in establishing and agreeing on a common ground/a basic structure and aim before moving on to the next steps. Develop an overall project framework (e.g based on the FFI Mediterranean model of integral ecological regeneration, **chapter 2**)

- The actor engagement process requires a **shared why, how and what of SWITCH** in order to foster working together within the projects as well as with regional food system actors. At present, a first 2-paged document has been prepared that will be developed into a Manifesto during a co-creation session at the annual meeting in Berlin, January 2024.

- **Process is key and in many cases, more important than the end goal:** The process needs to be emphasised more than the end goal and technical details.

Recommendations: (1) Shift the focus to the food system actor co-design processes from which end activities will naturally arise from. This aspect is crucial in the living lab/food hub process and realist evaluation framework. (2) Shift the focus to the internal co-design process through team and project building sessions focusing on process rather than content.

- **The importance of building agency, confidence and empowerment:** Switching to a co-design mindset is not easy and is not always a given especially for those who have not participated in such a process before. Having people who have experience with co-design within each hub and act as a liaison between the hubs and partners is useful to bridge gaps.

Recommendations: Empower the target groups to take charge of their own process; Have one person in each hub with co-design experience who has the role of linking with this process. To acknowledge the differences between Hubs concerning their set-up, capacities, their regional context and the barriers and opportunities, we recommend that each Hub creates their own Play-Book. Standardisation of the actor engagement process in a handbook is often applied in other projects. However, this is not the preferred option for SWITCH. Such standardisation will interfere with regional relevance and applicability and hence, the outcomes of Hub activities. To facilitate adaptability. An organising template and mixture of resources is provided to support Hubs (see **6.2 Playbook - resource kit**).

-
- **Systemic architecture is key for the health of the project:** Clarity is key to promote the systemic health of the project and promote flow, quality, creativity and vitality. *Recommendations:* Making sure that (1) any potential issue from the past is acknowledged and lessons can be learned; (2) all internal SWITCH actors feel there is a purpose and reason for being in the project; (3) there is a strong sub-team cohesion and recognition of roles within a team (4) the current positions have purpose and match with the needs of the project. To facilitate a shared understanding of the interdependencies between partners, an infographic has been developed. The infographic (**Figure 16**) is a visual representation of how the WP's are interconnected and part of the evolution process of the SWITCH project, going from seeds to fruits - the systemic change:

The soil is the abundant and vibrant environment that makes life possible and in which development begins. Buried deep into the soil is **Inclusivity**, the foundational principle of the project, on which seeds feed. The seeds represent the **Food Hubs**, as they constitute the core element growing connections (roots) with each other and within their regional network, innovating and implementing activities that will continue to evolve as they integrate cycles of feedback and evaluations from the engaged actors.

WP5 plays an essential role in nourishing and assisting the seeds to sprout and navigate through the layered soil that represents the **Multidimensionality** of the context and circumstances). It accomplishes this by studying how the whole system works, and by creating and providing the best possible structures and methodologies that Food Hubs can employ to **Meaningfully engage** food system actors and the general public.

WP5 is assisted by **WP4**, represented as earthworms, which are important contributors to soil health and fertility. WP4 provides research methods and insights on social determinants that influence regional capacity to produce and consume food in a healthy and sustainable way, with special attention to actors that are not currently able to engage in such practices.

WP8 is a layer that originates in the soil and accompanies all stages of growth of the tree until fruition and beyond. It guides engagement with actors and food systems transformation through **Communication strategies** and manages a variety of activities aimed at effective dissemination and exploitation of project outputs.

WP6 contributes to the nourishment of the seeds and growth of the tree in the role of a meshed irrigation system - or DataLake. It collects data from Hubs' activities and delivers digital innovations tailored to specific groups to support education and engagement.

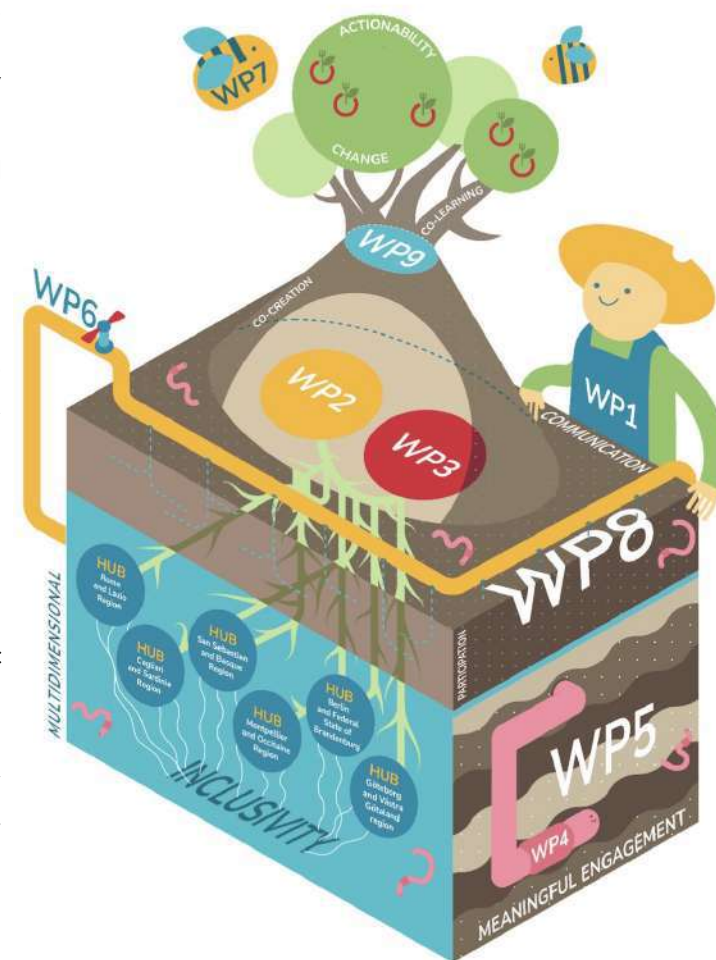
WP2 and **WP3** lie at the base of the trunk of the tree, where they collect and analyse various types of data emerging from the Hubs' realities, including information about the infrastructure of a regional food system flow that has healthy and sustainable features (WP2), and data about the foods and meals that constitute a regional diet that is healthful and sustainable (WP3).

As the tree grows with the **Co-creative** effort of all partners involved and actors engaged, there will be a convergence facilitated by **WP9**, that has the task to cultivate a synergistic collaboration with the European and national political world and provide policy recommendations to ultimately facilitate **Actionability** and change.

WP7 has the role of assessing the sustainability of upscaling regional healthy and sustainable diets through a modelling toolbox, as well as demonstrating the health impacts and socioeconomic co-benefits of healthy dietary pattern changes. It will be contributing to the project in a later stage and is represented as bees pollinating and assessing the health of flowers, and thus, the potential of the fruits.

Finally, to make sure the whole process evolves according to plans and leads to the expected results, there is the essential contribution of **WP1**, which, in practical terms, is responsible for project coordination, supervision and management. WP1 is represented as the farmer, who is tending to and monitoring the whole developmental process of the tree - from seeds to the ripening of the fruits.

Figure 16. Representation of SWITCH evolution process and WP's interconnection



- **Purpose and motivation need to be continuously ignited:** Purpose and motivation are crucial elements which drive the whole project but tend to get lost and need to be re-ignited.
Recommendation: Have activities that reignite these regularly (ex: the WHY on the Sinek golden circle); bring back the joy surrounding food and our passion to change the food system.
- **A project is only the sum of its parts which are people:** Feeling like a team is the most important element.
Recommendations: Crucial to place emphasis on group dynamics and have sessions to gain understanding from one another, make agreements, work on trust, give feedback in a constructive way.
- **Workshop co-design from the bottom-up is key:** It is crucial to align the different levels of the project and co-design the workshop sessions between the session organisers and the target audience of the sessions; Using collaborative tools during workshop sessions is beneficial to steer creativity, self-reflection and understanding what is missing. However, in some cases, workshop sessions need to be adapted to fit the workshop participants.
Recommendation: Consult with the target group of the workshop to assess what their most pressing current needs are and include these into the design of the workshop; make sure what you intend to do in the workshop resonates with them; continue to use creative session formats and balance them with other formats (e.g.: Q&A sessions).

Barriers and opportunities within the SWITCH regions

The Hub inventory uncovered barriers perceived by Hub members and food system actors. Barriers are shared (e.g. related to policy and regulations) and specific to regions (e.g. related to fish consumption). The shared barriers relate to four themes: disconnections, imbalances, misalignments and inaction and represent deep-rooted issues within European food systems:

Disconnection: the loss of connection between people, regional territory and its food producers has resulted in consumers being unfamiliar with local foods, assigning a negative image to it and hence, a low demand of such foods with preferences for cheaper, imported and high processed foods; life in cities is characterised by being busy, weak social ties, a preference for convenience, with low openness and motivation to engage in sustainable, healthful food practices.

Imbalances: marginalisation of groups is visible in the rising inequalities, food insecurity and low food sovereignty; this also applies to the production side, with business incentives for already large, powerful (multi-national) businesses rather than small, regional producers; imbalance in production-demand emerges from high processed foods being geographically and economically easy accessible, while

local (certified) food production remains low due to small regional businesses struggling with financing sustainable food infrastructures and upscaling.

Misalignments: differences between policies at EU, national and regional level complicate funding; also, action is hindered by the misalignment between visions, definitions and guidelines regarding healthful, sustainable food and the plurality of disconnected initiatives.

Inaction: public administration is characterised by (inadequate) policies, bureaucracy and low competence, which hinder taking action; also low political interest in transformation, with some policies being supportive to non-sustainable practices and non-supportive to grassroots initiatives is perceived as a barrier.

Also, a multitude of opportunities were brought to the forefront and include a mixture of resources at socio-cultural, economic, political, physical-environmental level. These are categorised in strategies that may counteract the perceived disconnectedness between people and food, re-generate balance and alignment and igniting action:

Connectedness: activities that valorise the regional territory, traditions, culture and foods, cultivate a shared sense of familiarity, belonging and appreciation, with gastronomy playing a key role.

Balance: relative cheap food markets, existing infrastructure and green and blue locations may be used to increase demand for small producers and provide affordable, accessible local food to regional inhabitants;

Alignment: the multitude of small, bottom-up (grassroots) initiatives provide critical mass to advocate for policies and subsidies that favour regional, sustainable produce over imported, unsustainable and high processed foods from (multinational) large companies; also,

Action: reframing sustainability into a positive challenge that resonates with everyday reality of actors, invites engagement, alignment and creation of social networks, partnerships and initiatives that are characterised by coherent coordination to ensure sustainable use of resources.

The inventory of barriers and opportunities has inspired Hubs to formulate their first conclusions on their further steps of the actor engagement process (**chapter 4**), leading to formulating their activities within the first six months of 2024.

6.2 Resource-kit for the SWITCH actor engagement process

This resource-kit provides a set of materials that each Hub can use to create a PlayBook for their regional actor engagement process. It contains:

1. Outline for how to create the Play-Book;
2. A template outlining the four stages within the actor engagement process and the key question to answer during each stage;
3. SWITCH formats for collecting actor perspectives;
4. Additional resources.

1. Overall format for the SWITCH actor engagement process

Actor engagement is an essential component of FOOD HUBs. The aim is to involve all actors interested in the barriers and opportunity being addressed in order to obtain useful and comprehensive feedback for the development of innovative Hub activities. The stakeholder engagement process can be divided into four main stages:

2. How to create your own SWITCH Hub PlayBook?

Using the local barriers and opportunities indicated in your Hub fingerprint, you will create your own PlayBook, which serves as a kit of tools and resources to support your Food Hub actor engagement process. Your Playbook should include:

- A checklist of activities to be carried out for each stage of the process
- Templates of documents and tools to be used for stakeholder engagement and for your communication (in your Food Hub language)
- Case studies and good practices for inspiration
- Stakeholder analysis checklist
- Template letter of invitation to participate in the Food HUB
- Template questionnaire for collecting feedback from stakeholders
- Materials for co-design (Hackathon, DT tools, etc, see 5. Additional tools and resources.)

Tips on creating your PlayBook recommendations for FOOD HUBs coordinators:

Based on the above, here are some tips for Hub coordinators who need to carry out the actor engagement process:

- Start with a **thorough analysis of the stakeholders**. Who are they? What are their interests and needs? Where do they fit into the stakeholder network? Identify the key stakeholders (actors) involved, establish the goals of engagement, and clarify the roles and responsibilities of each actor. Analyse key stakeholders' observations.
- **Define clear and specific objectives** for stakeholder engagement. What do you and the stakeholders want to achieve by being engaged?
- Choose the **most appropriate methods** of involvement for your context and objectives. Facilitate workshops, brainstorming sessions, and other participatory activities where stakeholders collaborate to co-create solutions. Use design thinking methodologies to generate ideas with an open-minded attitude (divergent phase) and to refine ideas (convergent phase).
- Make the engagement process **transparent and inclusive**. All actors must have the opportunity to participate actively. Carry out the planned experiments, prototypes, or interventions within the Food Hub environment. Engage actors in the hands-on implementation of the project.
- Identify successful **outcomes and innovations**, develop strategies for scaling them up, and disseminate the findings through reports, presentations, conferences, and other dissemination channels. Engage actors in the dissemination process to ensure knowledge transfer.
- Select your best **monitoring tool**: implement data collection methods, monitor the progress of the experiments, and assess the impact of innovations. Engage actors in feedback sessions and evaluations.

Stages:	WHY*	People WHO**	Tools WHAT***	Spaces WHERE****	Interactions HOW*****
<p>1. Actor analysis</p> <p>The first stage is to identify all actors with an interest in the challenge or opportunity. It is important to consider all possible actors both internal and external to the organisation hosting the SWITCH HUB.</p>					
<p>2. Define the objectives</p> <p>Once the actors have been identified, it is necessary to define the objectives of the engagement. The objectives can be of different types, such as:</p> <ul style="list-style-type: none"> ● obtaining feedback on actors needs and expectations; ● involving actors in the process of developing solutions; ● building relationships and cooperation between actors. 					
<p>3. Choosing methods</p> <p>The third step is to choose methods of participation; methods can be of different types, for example face-to-face meetings, focus groups, surveys, workshops, other participatory techniques.</p>					
<p>4. Implementation</p> <p>The final step is to implement the engagement plan. It is important to ensure that the process is transparent and inclusive, and that all actors have the opportunity to actively participate.</p>					

*WHY: why do you want to commit to this activity; ** People: WHO is going to do what in the planning and executing the activity; ***Tools: WHAT tools and resources do we need for the activity and for communications **** Spaces: WHERE are we going to execute the activity *****Interactions: HOW will we interact with actors and organise communications about the activity

Format for Hub communication

The SWITCH WP5 Hubs have designed a template through which communication with the other WP's is organised. WP leaders regularly update the template with the state of affairs of their WorkPackage and specify current and upcoming tasks for the Hubs and provide an overview of important documents. Both the Hubs and WP leaders can list questions to be addressed in upcoming Hub meetings (**Annex 15**).

https://drive.google.com/drive/folders/1WaEKzIxdZP-Ego8uyyLChF5RT4cJImJg?usp=drive_link

3. Salutogenic criteria for Hub activities

An important part of the playbook is co-creating the SWITCH activity. The SWITCH activity is the result of a co-creative process, Hubs and relevant stakeholders (see [report D4.1](#)). To provide some guidance to this co-creative process, [report D4.1](#) conducted a review to uncover relevant mechanisms for activities aimed at promoting healthy and sustainable eating. This literature review pointed out the importance of personal meaning, a sense of togetherness and a supportive learning culture in individual behavioural changes processes. These change mechanisms are in line with how the Salutogenic Model of Health (SMH) views mechanisms important for behavioural change (for a more detailed explanation of the link between the results of the literature review and the SMH; see SWITCH report D.4.1). Based on the literature review and the SMH, report D.4.1 provides some direction for either 'switchifying' Hub activities or designing/developing new effective SWITCH activity. These results of the literature review are translated into 5 *guiding* salutogenic criteria to design/switchify a hub activity. A SWITCH activity is an activity that provides opportunities to:

1. **Participate actively:** participants and stakeholders have active participation in shaping the outcome of the activity. According to salutogenesis, active participation refers to the 'why' a participant should invest in the action. The activity should be considered worthy to invest in. Experiences in shaping outcomes are comparable to what self-determination theory refers to as the psychological need for autonomy (Ryan et al, 2008). Autonomy is experienced when people feel they contribute to decision-making and feel in control of the behaviour. In self-determination theory, autonomy is considered critical for internalising a motivation for initiating and sustaining new behaviours (e.g. moving from external motivation to intrinsic motivation and regulation) (Ryan et al 2008).
2. **Stimulate self-reflection:** active participation goes hand-in-hand with self-reflection. The activity should invite participants to self-reflect on previous experiences with healthy and sustainable eating (life course approach) and personal values to internalise the motivation for more healthy and sustainable eating.
3. **Foster social connectedness:** the activity is designed to connect participants in a meaningful way. People need to feel consistent emotional bonds and a sense of belonging in a group of participants during the activity.

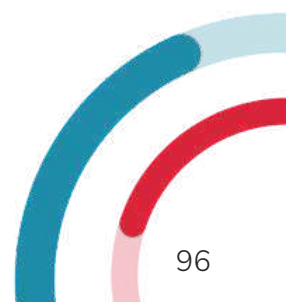
4. **create equitable social, cultural, economic and physical access for all**, including vulnerable/marginalised groups. In SWITCH this informs which people are the ‘target groups’ of the activities, starting from “sustainable, healthful food for all’ . The SWITCH project wants to avoid inverse equity effects that are known to result from interventions that require resources unavailable to these groups including health and food literacy, learning skills and social support. In SWITCH, this requires an understanding of how food/eating practices differ per marginalised group.
5. **employ an encouraging and supportive approach** to healthy and sustainable eating that makes participants feel seen and motivates to take action and ownership over their diets. In practice, this means positive, solution oriented messages that aim to support participants in identifying and applying resources that foster meaning, understanding and action of everyday sustainable, healthful eating practices. In addition, an encouraging and supportive approach implies that activities are evaluated with tools that, similar to the activities itself, foster meaning, understanding and action among activity participants and -stakeholders.

4. SWITCH formats for collecting actor perspectives

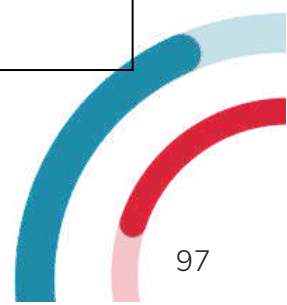
- **Salutogenic interview guide (Annex 11)**
- [Example format actor event \(Annex 16\)](#)

5. Additional tools and formats:

Who - engaging stakeholders	<p>The MSP guide from WUR on how to design & facilitate multi-stakeholder partnerships</p> <p>Methodology for the engagement of school living labs with stakeholders - SALL</p> <p>Practical guidance and training materials for the engagement of school living labs with stakeholders - SALL</p> <p>Guidelines for mobilizing and involving people - European Commission</p>
------------------------------------	--



<p>What - designing the living lab/co-creation journey</p>	<p>In-depth reports</p> <p>UNALAB urban living lab framework - UNALAB</p> <p>Living lab handbook for urban living labs developing nature-based solutions - UNALAB</p> <p>Good practices and methods for co-creation - RICHES EU</p> <p>Roadmap for co-creation - SALL</p> <p>Development and experimentation platform for social, health and wellbeing services in the context of Kalasatama health and wellbeing center</p> <p>iSCAPE manifesto for citizen engagement in science and policy</p> <p>Roadmap, timeline, schedule of workshops and role of stakeholders in planning process - FUSILLI project</p> <p>Framework for LL facilitation and data production DIVINFOOD</p> <p>Practical tools</p> <p>Toolbox worksheet for co-creation journeys</p> <p>Co-creation workshop on applying the living lab methodology</p> <p>U4IoT Toolkit - This toolkit is to guide the Large-scale pilot (LSP) projects and especially the pilot sites through the innovation processes, with a special focus on user-engagement. It comprises methodologies and tools found across literature and online, put together in a format that follows the different phases along the innovation process.</p>
<p>How - practical tools for the practice of co-creation</p>	<p>Practical tools & methods to be used during workshops</p> <p>Tools for co-creation from the european network of living labs - UNALAB</p> <p>Gamestorming: A Set of Innovative Co-creation Tools</p> <p>Co-Creative Workshop: Methodology Handbook</p> <p>The MSP toolguide from WUR</p> <p>Workshop guide citizen consultation on food system transformation - FIT4FOOD</p>



	<p>CO-CREATE DIALOGUE FORUM GUIDEBOOK - EAT lancet</p> <p>Liberating structures guide</p> <p>In-depth reports</p> <p>Co-creation workshops report - UNALAB</p> <p>Designing multi-stakeholder events - FIT4FOOD</p> <p>Reflection methods: proven methods to guide the process of reflection and boost collaborative learning</p> <p>CO-CREATE Dialogue Forum Tool - EAT lancet</p>
Physical materials to support workshops	CoCo tool kit
Courses on living lab co-creation	<p>Virtual learning lab course</p> <p>Deep dive training for co-creation and experimentation</p>
Additional resources	<p>Publication library from the european network of living labs</p> <p>Social innovation playbook (different field but interesting ideas)</p> <p>Co-Creativity and Engaged Scholarship, Transformative Methods in Social Sustainability Research - Academic and practical perspective on transformative methods</p>
Academic literature	<p>Health literacy – engaging the community in the co-creation of meaningful health navigation services: a study protocol</p> <p>Collaborative research methods and best practice with children and young people: protocol for a mixed-method review of the health and social sciences literature</p> <p>Nothing about us without us: A co-production strategy for communities, researchers and stakeholders to identify ways of improving health and reducing inequalities</p> <p>Homes (4H) Scotland: feasibility of a participatory approach to adaptation and implementation of a study aimed at early prevention of obesity</p> <p>Living labs under construction: paradigms, practices, and perspectives of public science communication and participatory science</p>
Examples Hub/LL approaches, activities	Build a city of food justice: what's next for the Bristol Local Food Fund?

Keywords: "Asset based community development" AND "protocol"; ("co-creation" OR "co-production") AND "protocol" AND (health OR food) AND community

7. Hub fingerprint summaries in local languages

For English version, see **Annex 18**.

7.1 Hub 1. Rome and Lazio region

Contesto regionale

L'HUB di Roma e del Lazio si trova nella parte centrale dell'Italia. La regione ospita 5.9 milioni di persone di cui quasi la metà risiede nella città di Roma. Roma, infatti, rappresenta il polo urbano più grande della regione e dell'intero Paese e, assieme ad altri 120 comuni, forma la Città Metropolitana di Roma Capitale. Quest'area rappresenta la massima area di impatto delle attività dell'Hub.

La popolazione regionale, oltre che dagli abitanti di origine italiana, è composta per circa l'11% da residenti non nativi che contribuiscono alla diversità culturale della regione. Essi provengono principalmente da Romania, Filippine e Bangladesh.

Per quanto riguarda lo stato socio-economico, la percezione è che la povertà sia in aumento, soprattutto per via dell'aumento dei prezzi. A ciò si accompagna un tasso di occupazione del 46% circa con ancora un grande gap tra donne (44,4 %) e uomini (60,1%). Il livello di scolarizzazione si sta alzando, solo il 3,8% della popolazione è analfabeta o non ha un titolo di studio mentre circa il 60% ha un titolo superiore alla licenza media.

Per quanto riguarda lo stato di salute, la maggiore problematica è rappresentata dalle cosiddette "patologie del benessere". L'eccesso di cibo, spesso di bassa qualità, accompagnato da una riduzione dell'attività fisica, causa l'insorgenza di problemi cardiovascolari, disordini metabolici e problemi di peso. Il Lazio è tra le regioni italiane con i tassi di obesità e sovrappeso più alti. Ancora più preoccupante è la diffusione di tale fenomeno tra i giovani, i quali sono sempre più soggetti a disturbi del comportamento alimentare.

In questo contesto, grazie al confronto con gli attori del sistema alimentare, è stato possibile identificare le categorie vulnerabili e/o marginalizzate nell'accedere ad un'alimentazione più sana e sostenibile, che risultano essere: 1) le persone con problemi economici (anziani, persone che hanno perso il lavoro e coloro che hanno un reddito basso) poiché hanno limitato accesso al cibo; 2) le persone con un basso livello di istruzione (che spesso fanno parte anche della prima categoria) in quanto non possono accedere ad alcune informazioni; 3) i bambini e i più giovani perché più vulnerabili allo sviluppo di cattive abitudini alimentari; 4) le persone con disabilità (es. autismo) spesso poco considerate dalle istituzioni. Per quanto riguarda il lato produttivo, è stato evidenziato che anche i piccoli produttori e le piccole imprese possono rappresentare categorie vulnerabili. Considerando gli effetti del cambiamento climatico e l'aumento dei prezzi, sono spesso costretti a chiudere le proprie attività.

Il sistema alimentare e la cultura culinaria. Il clima e la morfologia del territorio consentono la diffusione dell'attività agricola la quale è caratterizzata da un'elevata biodiversità. Questo si accompagna ad un'elevata diversità di prodotti locali (dal prodotto caseario, al miele fino a legumi e verdure). Il territorio regionale può potenzialmente fornire tutto ciò che un essere umano ha bisogno di introdurre in una dieta sana.

Per quanto riguarda i flussi alimentari, Roma rappresenta il più grande centro di consumo d'Italia. Considerando i turisti e le persone che lavorano in città, il numero di persone che mangiano ogni giorno a Roma si aggira intorno ai 5 milioni di persone, circa il doppio della popolazione residente. Il sistema produttivo circostante, quindi, non è in grado di garantire un livello di offerta sufficiente. Di conseguenza Roma consuma molti cibi che provengono dal resto del mondo, oltre che da altre parti d'Italia. Dall'altra parte, tuttavia, il consumo di alimenti freschi (verdura, frutta ma anche carne e derivati del latte) è elevato. A ciò contribuisce anche la rete di 144 mercati rionali (localizzati in diversi quartieri) che garantiscono un sistema di distribuzione a filiera corta all'interno della città.

Nella regione è ancora diffusa una forte identità culturale e una tradizione gastronomica che conta circa 300 specialità e 70-80 ricette tipiche. La cucina regionale è fortemente legata alla storia e alle tradizioni locali, si compone di prodotti semplici ed ha una grande attenzione agli sprechi. Ad esempio alcune ricette tipiche sono realizzate con il cosiddetto "quinto-quarto", ovvero parti di animali che solitamente vengono scartate. Oppure ricette come la "minestra con pane sotto", ovvero una zuppa a base di pane raffermo e verdure. Altra caratteristica della cucina regionale è l'inclusività. Per molto tempo questo territorio ha ospitato diverse culture. L'esempio più comune è la cucina giudaico-romanesca (cucina ebraica), una cucina antica e che si mantiene in vita soprattutto nella città di Roma. Infine, negli ultimi anni è possibile osservare anche una grande vivacità di gruppi di etnie diverse con le proprie specialità e ricette tipiche.

Il cibo tradizionale è mantenuto vivo principalmente dai ristoranti. A causa dei ritmi di vita, infatti, è sempre più difficile trovare chi abbia il tempo di cucinare in casa i piatti della tradizione. Ciò è legato anche alla progressiva perdita della capacità di scegliere e preparare determinati alimenti e ha un impatto sul modo in cui le persone fanno la spesa. Ad esempio, si ricercano piatti pronti o verdure già pulite e si acquistano solo i pochi prodotti conosciuti, rischiando di non diversificare la dieta. In linea con ciò, un recente studio basato su interviste nelle scuole ha dimostrato che i più giovani non seguono più la dieta mediterranea.

L'HUB.

L'HUB di Roma e del Lazio è rappresentato da Agro Camera, l'Azienda Speciale della Camera di Commercio di Roma che si occupa di promuovere e valorizzare il sistema agroalimentare della provincia di Roma. Nel suo ruolo rientra la gestione della Borsa Merci e l'organizzazione di attività volte al supporto di aziende e persone virtuose del settore agroalimentare. Essendo parte di un'istituzione Agro Camera rappresenta un HUB top-down.

Centrale nella missione dell'HUB vi è il supporto dei prodotti freschi, locali e stagionali e di tutte quelle aziende che se ne fanno promotrici. Non solo per gli effetti positivi sull'ambiente e sulle persone ma anche perché sono ritenuti anche un importante patrimonio culturale.

In linea con il suo ruolo e la sua missione, le attività promosse da Agro Camera si concentrano su diversi aspetti dell'agricoltura e del sistema agroalimentare: agroambiente e biodiversità, aspetti sociali (es. promozione dell'agricoltura sociale), turismo (es. agriturismo)

e istruzione (es. fattorie didattiche). Un esempio è la lunga storia di attività mirate all'educazione ambientale e alimentare nelle scuole. Inoltre, Agro Camera gestisce un sito web (<https://www.romaincampagna.it/>) che promuove attività e luoghi da visitare nella campagna romana. Infine, essa è coinvolta in progetti di certificazione alimentare con l'obiettivo di tutelare la diversità e la qualità dei prodotti alimentari.

Per quanto riguarda la struttura, Agro Camera è composta da 9 persone ognuna con un background diverso ma accomunate dalla grande conoscenza del territorio e del sistema alimentare della regione. La struttura fisica dell'HUB si trova nel centro di Roma ed è suddivisa in due sedi, una delle quali (Centro Servizi Roma in Campagna) è aperta al pubblico e può ospitare eventi e attività.

Essendo parte della Camera di Commercio di Roma, il network di attori dell'Hub è ampio. Esso si compone di diverse tipologie di attori, ciascuno con un ruolo e un impatto specifici sul sistema alimentare. Vi è un'alta percentuale di rappresentanti istituzionali ma mancano connessioni dirette con cittadini e consumatori. Infine, non ci sono ancora connessioni con il settore ittico.

Solitamente i contatti vengono stabiliti in occasione di specifici eventi o attività organizzate da Agro Camera. Alcuni rimangono stabili solo per la durata di un determinato evento (ad esempio una fiera), altri possono rimanere stabili e/o innescare un effetto domino, poiché gli attori del sistema alimentare, più di altri, sono collegati tra loro.

SWITCH è completamente allineato con i valori e la missione dell'Hub. Il progetto, infatti, rappresenta un'occasione per migliorare l'azione che l'Hub già svolge sul territorio (ad esempio l'educazione alimentare nelle scuole e la raccolta di dati sui consumatori).

Tra le principali ambizioni dell'Hub vi è quella di arrivare al consumatore. Infatti, sebbene l'attenzione verso le tematiche ambientali stia aumentando, le persone non sono ancora in grado di compiere un cambiamento. Spesso ciò è connesso ad una mancanza di informazioni e/o ad una comunicazione errata che genera confusione e scarsa fiducia. In questo senso SWITCH rappresenta una grande opportunità in quanto può fornire un supporto scientifico e informazioni credibili sia ai consumatori che ai produttori.

Altra ambizione è quella di recuperare e valorizzare alcuni mercati rionali della città con l'obiettivo di promuovere l'acquisto di prodotti alimentari locali. Attualmente, infatti, i mercati sono frequentati solo da alcune fasce della popolazione (soprattutto anziani) a causa degli orari di apertura.

Nel processo di transizione verso un'alimentazione più sana e sostenibile le difficoltà sono tangibili. La mancanza di una corretta comunicazione e di una solida educazione alimentare e ambientale da un lato, lo stile di vita frenetico e l'aumento dei prezzi dei prodotti alimentari dall'altro rappresentano delle forti barriere al cambiamento. Tuttavia, le opportunità che offre il territorio e l'Hub stesso sono molte. Innanzitutto, il territorio è pieno di persone motivate, soprattutto nelle fasce più giovani. La forte cultura culinaria e l'abbondanza e diversità di prodotti alimentari locali, forniscono una solida base per la costruzione di un'alimentazione sana e sostenibile. La possibilità di raccontare la storia di un prodotto e/o di un piatto, può essere una forte leva per riconnettere le persone al valore del cibo. In questo processo, i mercati possono funzionare da punto di incontro tra consumatore

e produttore, ovvero colui che è in grado di raccontare qualcosa del suo prodotto, eventualmente accompagnato da una figura come lo chef che possa mostrare come valorizzare un prodotto.

Parlando invece dell'Hub, una delle risorse più grandi è rappresentata dalle persone che ne fanno parte. La loro grande conoscenza del sistema alimentare regionale e il loro impegno per trovare sempre il modo migliore per sostenere le realtà virtuose rappresentano una solida base per avviare le attività di co-creazione. L'Hub, inoltre, dispone di uno spazio fisico che può essere utilizzato per ospitare eventi, convegni e incontri con il grande pubblico. E' ancora poco utilizzato ma ha il potenziale per diventare un punto di riferimento per le attività. Infine, se da un lato essere un Hub top-down può essere difficile a causa della burocrazia e delle formalità, dà però accesso a contatti con il settore politico-istituzionale il quale ha un grande impatto sul cambiamento.

7.2 Hub 2. Cagliari and Sardinia region

La regione Sardegna è uno dei territori (Food Hub) su cui si svolgeranno le attività per realizzare gli obiettivi trasformativi del progetto SWITCH. L'isola ospita una popolazione di quasi 1,6 milioni di persone e offre diversi paesaggi che favoriscono la sua grande ricchezza naturale e biodiversità. L'agricoltura occupa quasi la metà del territorio sardo, principalmente nelle pianure e nelle zone collinari, mentre le foreste dominano il resto del territorio, rappresentando una delle quote più alte di boschi tra le regioni italiane. Dal punto di vista demografico, i dati mostrano un progressivo invecchiamento della popolazione in Sardegna e un'età media che supera la media nazionale; inoltre, la Sardegna è nota come una delle rinomate "zone blu", caratterizzate per la longevità e la presenza di un elevato numero di centenari. Tuttavia, emergono preoccupazioni per la salute con alti tassi di sovrappeso e obesità tra adulti e minori (32% e 22% rispettivamente, nel 2022), sottolineando l'impatto di stili di vita non salutari e di una scarsa educazione alimentare. Il tessuto socio-economico dell'isola, influenzato da disparità di reddito, istruzione e occupazione, riflette variazioni tra regioni e settori. L'agricoltura, come l'allevamento ovino e l'olivicoltura, rappresenta un pilastro fondamentale dell'economia rurale. Tuttavia, affronta problemi di redditività, volatilità dei prezzi e sfide legate ai cambiamenti climatici. Inoltre, i luoghi rurali, affrontando una limitata diversità economica e opportunità di lavoro, mostrano condizioni socio-economiche inferiori rispetto ai centri urbani. L'indice di povertà e di esclusione sociale della Sardegna ha raggiunto circa il 36,4% nel 2022 in un costante aumento negli anni passati. Tuttavia, le disparità economico-sociali e lo stile di vita perpetuano la vulnerabilità e la marginalizzazione, limitando l'accesso a cibo salutare e sostenibile, specialmente tra famiglie a basso reddito, studenti universitari, bambini e anziani.

La Sardegna, attraverso le amministrazioni regionali e locali, favorisce attivamente l'accesso a cibo di qualità e sistemi alimentari sostenibili. Le iniziative ruotano attorno a pratiche agroecologiche, agricoltura biologica, conservazione di pratiche tradizionali e investimenti nella sostenibilità. L'accentuata crescita dell'agricoltura biologica in Sardegna e la realizzazione del bio-distretto regionale nel 2021 evidenziano un impegno significativo verso la promozione delle pratiche agricole sostenibili. Questo sviluppo positivo si

contrappone alla situazione che riguarda il consumo del cibo dei sardi. Sebbene la dieta presenta somiglianze con quella delle altre regioni italiane nel complesso, la Sardegna registra il secondo tasso più basso di consumo di legumi rispetto al resto d'Italia.

Il food hub della Sardegna, rappresentato da Laore e supportato dalla divisione IAFES Sassari della fondazione CMCC, incarna l'impegno della regione per programmi agricoli sostenibili e lo sviluppo rurale. Fondata nel 2006, Laore è l'agenzia regionale responsabile dell'attuazione dei programmi agricoli e della promozione dello sviluppo rurale in Sardegna.

Allineato al progetto SWITCH, Laore cerca di rafforzare i sistemi alimentari sostenibili attraverso concetti moderni di filiera, multifunzionalità rurale e pratiche sostenibili, promuovendo attività collaborative e partnership. La rete del food hub, che comprende vari attori e entità regionali, sarà la base delle attività di SWITCH. Laore è disponibile a sviluppare nuove connessioni e forme di collaborazione con altri attori interessati. Diverse sfide economiche, politiche e socio-culturali per l'adozione di diete e sistemi alimentari sani e sostenibili esistono. Tuttavia, le opportunità per trasformare i sistemi alimentari della Sardegna sono vaste e diverse. Tra le tante si possono menzionare la promozione di reti collaborative, la condivisione di storie di cambiamento, la valorizzazione della produzione locale attraverso iniziative come le attività di ristorazione scolastica e le filiere produttive regionali, ed infine l'educazione. Queste iniziative mirano a coniugare tradizioni e sostenibilità, sfruttando attività culturali e collaborazioni a livello locale. Laore si unirà agli attori locali per raggiungere gli obiettivi di SWITCH creando connessioni e cambiamenti durevoli. Questo sarà possibile grazie all'interesse crescente degli attori nei sistemi alimentari verso la sostenibilità e alla ricchezza del territorio sardo rappresentata dall'eccellenza delle produzioni locali, la sua agrobiodiversità e le sue tradizioni culinarie.

7.2 Hub 3. San Sebastian and Basque region

Spanish

Donostia – San Sebastián y Euskadi ha sido uno de los sistemas ciudad-región escogidos en el marco del proyecto europeo SWITCH para la implementación de actividades innovadoras con el objetivo de fomentar una transición justa hacia dietas saludables y sostenibles. En el seno de este proyecto, las regiones participantes constituyen living labs en los que se desarrollarán diversas actividades canalizadas y coordinadas por sus respectivos hubs. En el caso de nuestro Hub (San Sebastian and Basque Region), éste está momentáneamente compuesto por tres miembros: el Basque Centre for Climate Change (BC3), el Basque Culinary Center (BCC) y la Fundación Kutxa. Sin embargo, se halla en pleno proceso de definición y de creación de un grupo estable que aúne a más agentes del sistema alimentario de Euskadi.

En términos socioeconómicos, Euskadi acostumbra a caracterizarse como una región próspera en comparación con otras adyacentes. A pesar de ello, muchos de los procesos que se observan en otras regiones, como la creciente urbanización y envejecimiento de la población también se dan en Euskadi. No obstante, por mucho que los niveles de desigualdad, pobreza y exclusión social sean inferiores a las medias española y europea,

existe aún espacio para la mejora en aspectos que generan vulnerabilidades y que se traducen en muchas ocasiones en problemas alimenticios y/o de salud.

La alimentación, por su parte, es precisamente un elemento muy ligado a la cultura vasca. De hecho, la comida acostumbra a ser el centro de múltiples encuentros y actividades sociales. Sin embargo, a pesar de la relevancia de la comida y de la considerable valoración de los productos locales, el sistema alimentario en Euskadi sigue una tendencia parecida al panorama tanto español como europeo. Más del 90% de la comida que se consume en Euskadi es importada, además de que una considerable reducción de las tierras destinadas a agricultura y un incremento de la concentración de las tierras también están teniendo lugar en la región. Todo ello, con sus respectivos impactos sociales y ecológicos, lo que evidencia la necesidad de transitar hacia dietas más saludables y sostenibles, que se puedan encontrar al alcance de toda la población vasca.

Precisamente, las esferas de salud, sostenibilidad y justicia alimentarias son elementos que ya se están teniendo en cuenta por parte de diferentes agentes del sector alimentario. La iniciativa “Baratza Parke Sarea” de la Fundación Kutxa, la amplia gama de proyectos (libros, recetas, proyectos gastronómicos, talleres, actividades en comedores escolares, etc.) realizados por el BCC, la proliferación de grupos de consumo alimentarios, así como iniciativas promovidas desde las instituciones locales como la Asamblea Ciudadana de Gipuzkoa y los huertos urbanos municipales son algunos ejemplos. Desde el Hub se intenta realizar un mapeado de las actividades que se están llevando a cabo, con el objetivo de encontrar sinergias entre las mismas, potenciar las que lo necesiten y promover otras nuevas.

El objetivo del Hub, en última instancia, es el de contextualizar las dietas regionales, centrándose en aspectos de salud y sostenibilidad, para dar con una narrativa adecuada para transitar de manera justa hacia dietas saludables y sostenibles en la región. Para ello, está tratando de conectar a diferentes stakeholders de la región, para así comprender lo que están haciendo en términos de la mencionada transición, y crear espacios de conexión entre ellos para compartir conocimiento, experiencias, ideas y debates, que puedan resultar en potenciales colaboraciones en relación con una temática en la que existen diferentes visiones e intereses contrapuestos y en la que influyen múltiples factores socioeconómicos, culturales, psicosociales y ecológicos que la dificultan.

Euskera

Donostia eta Euskadi SWITCH europar proiektuaren esparruan aukeratutako hiri-eskualde sistemetako bat izan da, dieta osasungarri eta jasangarrietarako trantsizio jusetua sustatzeko jarduerak ezartzeko. Proiektu honen barruan parte hartzen duten eskualdeak *living lab-ak* dira, eta bertan hainbat jarduera garatuko dira, bakoitza bere *hubak* bideratuta eta koordinatuta. Gure *Hub-aren* kasuan (San Sebastian and Basque Region), une batez hiru kidek osatzen dute: Basque Centre for Climate Change ([BC3](#)), Basque Culinary Center ([BCC](#)) eta [Kutxa Fundazioa](#). Hala ere, *Hub-a* Euskadiko elikadura-sistemako eragile gehiago batuko dituen talde egonkor bat definitzeko eta sortzeko prozesuan murgilduta dabil.

Termino sozioekonomikoetan, Euskadi inguruko beste eskualde batzuekin alderatuta, eskualde oparo gisa karakterizatzen da maiz. Hala eta guztiz ere, beste eskualde batzuetan ikusten diren prozesuetako asko, hala nola biztanleriaren urbanizazioa eta zahartzea,

Euskadin ere gertatzen dira. Hala ere, desberdintasun-, pobrezia-, eta gizarte-bazterketako mailak Espainiako eta Europako batez bestekoak baino txikiagoak izan arren, oraindik ere badago lekua ahuleziak sortzen dituzten eta askotan elikadura- eta/edo osasun-arazoak eragiten dituzten alderdiak hobetzeko.

Elikadura, bestalde, euskal kulturari oso lotuta dagoen elementua da. Izan ere, janaria jarduera sozialen erdigunea izaten da askotan. Baina janariaren garrantzia eta tokiko produktuen balorazio handia gorabehera, Euskadiko elikadura-sistemak Espainiako eta Europako joera antzekoa izaten jarraitzen du. Euskadin kontsumitzen den janariaren %90 baino gehiago inportatu egiten da, eta, gainera, nekazaritzara bideratutako lurra nabarmen murrizten ari dira, bai eta lurren kontzentrazioa handitu. Horrek guztiak, bakoitzak bere eragin social eta ekologikoarekin, agerian uzten du beharrezkoa dela euskal herritar guztien eskura dauden dieta osasungarri eta iraukorragoetara igarotzea.

Hain zuzen ere, elikagaien sektoreko hainbat eragilek jada kontuan hartzen dituzten elementuak dira osasunaren, iraunkortasunaren eta elikadura-justiziaren eremuak. Kutxa Fundazioaren “Baratza Parke Sarea” ekimena, BCCk egindako proiektu sorta zabala (liburuak, errezetak, proiektu gastronomikoak, tailerrak, eskola-jantokietako jarduerak, etab.), elikagaien kontsumo-taldean ugaritzea eta tokiko erakundeek sustatutako ekimenak, hala nola Gipuzkoako Herritarren Batzarra eta udal hiri-baratzeak dira adibide batzuk. *Hub*-ean, eskualdean burutzen ari diren jardueren mapaketa egin nahi da, horien artean sinergiak aurkitzeko, behar dutenak indartzeko eta jarduera berriak sustatzeko.

Hub-aren helburua, azken batean, eskualdeko dietak testuinguruan kokatzea da, osasun- eta iraunkortasun-alderdietan zentratuz, eskualdean dieta osasungarri eta jasangarrietara modu jutsutan igarotzeko narrativa egokia aurkitzeko. Horretarako, eskualdeko stakeholder desberdinak konektatzen saiatzen ari da, trantsizio horri dagokionez egiten ari direna ulertzeko, eta haien arteko lotura-guneak sortzen, ezagutza, esperientziak, ideiak eta eztabaidak partekatuz, elkarlan potentzialetan gerta daitezkenak, hainbat ikuspegi eta interés kontrajarri dituen gaiari dagokionez, non hainbat faktore sozioekonomiko, kultural, psikosozial eta ekologikok eragiten duten.

7.4 Hub 4. Montpellier Metropolis and Occitanie region

La région Occitanie compte 6 millions d'habitants, dont 500 000 qui vivent dans la métropole de Montpellier. Cette dernière se compose de la ville et de ses 31 communes. Située dans le sud-est de la France, le paysage de la région est très hétérogène, avec à proximité de la mer Méditerranée, des hauts plateaux et différents paysages montagneux. L'Occitanie représente 20 % de l'agriculture biologique du pays et a été désignée meilleure région biologique d'Europe en 2022 grâce à l'augmentation des différentes aides à la transition. La région détient également une grande part des producteurs d'aliments avec des labels de qualité. La métropole est irriguée par deux fleuves côtiers avec une grande biodiversité, ce qui favorise l'agriculture spécialisée dans la région, comme la viticulture et les cultures maraîchères. Les universités, les organismes et les centres de recherche sont remarquablement présents sur le territoire et participent à son développement. Le secteur tertiaire est prédominant avec très peu d'industries actives.

Montpellier est une ville de grande mixité ethnique, social et économique. Une part considérable de sa population vit en dessous du seuil de pauvreté, reçoit une aide alimentaire et à des difficultés à accéder financièrement à la nourriture, en particulier fraîche. Les groupes vulnérables sont les étudiants, les travailleurs précaires et les familles monoparentales. D'autres groupes remarquables sont les communautés maghrébines et gitanes, pour lesquelles il existe des disparités conséquentes en matière de taux d'emploi, de nutrition et de santé, ainsi que d'importants problèmes de discrimination et de marginalisation. Cette diversité est visible à travers une séparation stricte entre les personnes, ce qui crée et accentue la marginalisation.

En ce qui concerne la santé, la métropole de Montpellier ne diffère pas beaucoup des statistiques nationales avec des taux d'obésité comparables, une population vieillissante qui explique la prévalence des maladies chroniques ainsi qu'une priorité de santé publique sur le tabagisme et l'alcoolisme. Les habitudes alimentaires dans la métropole de Montpellier se caractérisent par des visites fréquentes sur les marchés en raison de leur accessibilité et de leur présence dans l'environnement alimentaire, tandis que les supermarchés restent un canal de livraison important. Les habitudes alimentaires sont méditerranéennes, ce qui signifie que la plupart des fruits et légumes, des céréales, de l'huile d'olive et du poisson sont consommés. Toutefois, les directives alimentaires nationales ne sont suivies que par une faible partie de la population et la consommation de fruits et légumes reste faible. Certains produits sont indépendamment typiques de la région mais ne sont pas inscrits dans une gastronomie spécifique. Les repas sont généralement préparés à la maison et la consommation d'aliments prêts à consommer est en baisse. La forte prévalence de la restauration rapide, en particulier dans la ville, peut s'expliquer par la démographie étudiante.

Le Hub a été développé sur la base de liens déjà établis lors des différents projets et initiatives entre les unités de recherche, la Métropole Montpellier Méditerranée (3M) FAB'LIM et la Chaire UNESCO. Cette collaboration d'acteurs est favorable au changement grâce à un consensus politique historiquement efficace dans le lancement d'une politique agricole et alimentaire systémique et à un investissement à l'internationale. De plus, Montpellier est une ville expérimentale en France pour ses initiatives liées à l'alimentation et à l'agriculture. L'équipe de recherche est composée de 11 chercheurs, 3M a engagé 2 représentants, la Chaire UNESCO a signalé deux représentants, et FAB'LIM apporte les éclairages d'un expert. Le réseau est étendu, mais il manque des acteurs de la santé et de la nutrition ainsi que les restaurateurs et traiteurs.

Au sein du Hub, la recherche joue un rôle important dans le soutien à l'innovation. L'UMR Innovation est une unité de recherche de l'INRAE dans le hub de Montpellier, axée sur les transitions agroécologiques, climatiques et alimentaires. L'unité conçoit, dirige et participe à divers projets axés sur la diffusion des connaissances, la communication et le soutien aux initiatives locales. Les initiatives collectives et la mobilisation des citoyens sont les principaux leviers de changement dans le pôle, avant les décisions politiques ou les décisions individuelles des consommateurs. L'ambition du hub dans l'avenir de SWITCH est de s'appuyer sur les collaborations déjà en place dans le réseau et d'étendre le soutien aux initiatives existantes. Parmi ces initiatives figure la Caisse Alimentaire Commune, qui offre un accès égal à des aliments de qualité sur la base d'une sécurité sociale alimentaire

constituée de fonds publics et privés, et qui contribue également au développement de canaux de distribution locaux et durables. D'autres projets du pôle se concentrent sur les groupes marginalisés avec une étude sur la place et le rôle de la communauté gitane et des gens du voyage dans les secteurs agricole et alimentaire d'Occitanie, afin d'identifier leurs besoins et de renforcer la communication avec différents acteurs du système. Il y a au sein du hub un intérêt commun pour les initiatives citoyennes auxquelles les chercheurs peuvent contribuer en évaluant les impacts de ces actions.

Le projet SWITCH est une opportunité pour la métropole de Montpellier d'accroître son soutien aux initiatives en matière d'alimentation et de pratiques alimentaires. Les objectifs communs de reterritorialisation des systèmes alimentaires et d'une approche "farm to fork" montrent le potentiel d'une approche et d'un suivi holistique de ces initiatives dans le pôle de Montpellier. En outre, SWITCH peut assurer le suivi et l'évaluation des résultats des initiatives de terrain visant à la gouvernance alimentaire comme réponse à la précarité et à l'insécurité alimentaire. En effet, l'accès financier à une alimentation saine et durable reste crucial et aggravé par la pandémie COVID 19 et l'inflation récente, ainsi que la marginalisation de certains groupes qui les éloigne des circuits de distribution d'aliments sains. Enfin, le manque de données sur la consommation, qui entrave la création d'un profil nutritionnel de la région, ainsi que le temps consacré au projet restent des obstacles à surmonter dans les prochaines étapes du projet.

7.5 Hub 5. Belin and Federal State of Brandenburg region

Der SWITCH Berlin HUB wird vom "Baumhaus" organisiert, ein kollaboratives Projekt und nachbarschaftlicher Veranstaltungsraum für die Transformation zur Nachhaltigkeit in Berlin.

Das Baumhaus arbeitet mit dem "Berliner LebensmittelPunkte(LMP)-Netzwerk" zusammen, und hat das Netzwerk auch gestartet. LMPs sind ein berlinweites Netzwerk von nachbarschaftlichen Orten, die einen besonderen Schwerpunkt in den Bereichen Ernährung, Nachhaltigkeit und Zusammenhalt haben. "Gutes Essen für alle" und "Zusammen für die Ernährungswende in Berlin" sind die Slogans des Netzwerks.

Ziel: Lokal die Ernährungswende vorantreiben

Mission: Aufbau des LebensmittelPunkte-Netzwerks als Teil der Berliner Ernährungsstrategie, in Zusammenarbeit mit einem breiten Netzwerk von lokalen Akteur*innen

Werte: Selbstorganisation, Ernährungssouveränität und Agrarökologie, Gutes Essen für alle, Nachbarschaft, Kreativität, Ko-Kreation und Eigenart

Das Baumhaus ist die Werkstatt des Berliner LebensmittelPunkte-Netzwerks: Projektbüro, Plattform, LMP Prototyp und Reallabor für die Entwicklung des Netzwerks. Es bietet individuelle Beratung und Unterstützung für alle LMP-Initiativen, Schulungen und Workshops, organisiert Förderprojekte und Kooperationen zwischen dem LMP-Netzwerk und anderen Akteur*innen. Es ist der erste Anlaufpunkt für Orte und Projekte, die LMP werden wollen.

Aktuell gibt es 27 LMP-Initiativen (Stand November 2023), und 2024 werden es noch mehr werden. Jede Initiative hat ihre Besonderheiten. Ihre Aktivitäten reichen von Verteilpunkten

für regionale Gemüseboxen (Solawi), Lebensmittelretten und gemeinsames Kochen und Essen, bis zu Aktivitäten rund um Engagement und Bildung zu Gesundheit und Ernährung. Die Skalierung (Stärkung, Ausweitung & Ausbau) des LMP-Netzwerks in den kommenden Jahren kann auf Kiezebene mehr Zugang zu nachhaltigem und gesundem Essen in Berlin schaffen, sowie die Nachfrage nach agrarökologischen Produkten in der Region Brandenburg erhöhen.

Der HUB, Baumhaus und das LMP-Netzwerk sind Teil des vielfältigen und dynamischen Ökosystems von Food-Initiativen, kleinen Produzenten und Projekten entlang der Wertschöpfungsketten sowie Ernährungsstrategien in der Stadt-Region. Das Netzwerk des HUBs reicht von Nachbar*innen bis zu regionalen Erzeuger*innen, Food-Kooperativen, foodsharing, Ernährungsberater*innen, sowie lokale Verwaltungen auf Stadt- und Bezirksebene - und natürlich die LMP-Initiativen in allen Berliner Bezirken.

Drei wichtige Herausforderungen für den SWITCH Berlin HUB stehen fest:

- Die Vielzahl lokaler Akteur*innen des Wandels unterstützen, die schon an lokalen Lösungen für nachhaltigere Ernährung arbeiten -> Wie können die bestehenden Ansätze/Projekte/Aktivitäten gestärkt werden? ("scaling deep").
- Die LMP-Initiativen unterstützen: engagierte Bürger*innen, die gutes und gesundes Essen für alle organisieren wollen -> Wie können die LebensmittelPunkte ausgeweitet werden? ("scaling out").
- Die Weiterentwicklung der Ernährungsstrategien unterstützen, insb. die Verbindung mit/ Kommunikation von/ Fokus auf wissenschaftliche Ziele -> Wie kann die Ernährungsstrategie im Netzwerk ausgebaut werden? ("scaling up").

Die Berliner Bezirke unterscheiden sich stark in Bezug auf die sozioökonomischen und demographischen Bedingungen. Das dezentrale Netzwerk der LMPs, die jeweils an die Nachbarschaft angepasst sind, ermöglicht es uns, Aktivitäten zu entwickeln, die direkt bestimmte vulnerable Gruppen erreichen können. Im Rahmen des SWITCH-Projektes werden der Berlin HUB und das LMP-Netzwerk einen besonderen Fokus auf migrantische Communities legen. Berlin ist eine multikulturelle Stadt mit mehr als 800.000 Menschen ohne deutsche Staatsbürgerschaft. Migrantische Gruppen bereichern die Stadt mit ihren Esskulturen, aber es gibt auch auffällige Ungleichheiten im Bereich Gesundheit. Vor allem seit 2015 ist die Zahl der Geflüchteten gestiegen und es fehlt weiterhin oft Zugang zu gesunden und nachhaltigen Lebensmitteln.

7.6 Hub 6. Gothenburg and Vasta Gotaland region

Geografi och natur

Göteborgs stad ligger på Sveriges sydvästra kust i Västra Götalandsregionen, med både stads- och landsbygdsområden. Göteborg ligger där Göta älv rinner ut i Kattegatt, som är en del av Nordsjön. Här finns många öar, skärgården, som består av karg terräng med klippor och stenar. Göteborg har ett oceaniskt klimat med milda temperaturer, vilket beror på Golfströmmens inflytande.

Staden har många grönområden med parker, trädgårdar, naturreservat och andra grönområden. Tack vare allemansrätten är det fritt fram för alla i Sverige att utforska den svenska naturen, med undantag för privat egendom eller jordbruksmark. Dessa områden ger inte bara medborgarna en vacker plats för en promenad eller motion, utan de är också kopplade till sociala och kulturella behov; festivaler anordnas i parker, det finns lekplatser för barn, kaféer att umgås på, det finns ett "öppet zoo" där olika djur kan besökas t.ex. pingviner, sälar och älgar, och det Naturhistoriska museet ligger också i en park. Stadskärnan är väl förbunden med de mer storstadsnära delarna med bussar, spårvagnar och tåg. Det finns initiativ för att dela bilar, cyklar och elektriska skotrar. Göteborg är anslutet till den norra och södra skärgården med färjor.

Historik

Staden har sin historia som en holländsk handelskoloni. På 1700-talet var fisket den viktigaste näringen, men efter att Svenska Ostindiska Kompaniet grundats blev utrikeshandeln viktigast och staden blomstrade. Idag är Göteborgs hamn den största hamnen i Norden. Tillverkning och industri har också spelat en viktig roll för stadens välstånd, med företag som SKF, Volvo och Ericsson.

Sociodemografi

Göteborg är Sveriges näst största stad med en befolkning på cirka 600 000 invånare i stadskärnan och 1,1 miljoner invånare i storstadsområdet runt Göteborg. Befolkningens ålderssammansättning i Västra Götaland liknar den i Sverige som helhet. Nästan en femtedel av invånarna i Västra Götaland är idag 65 år eller äldre och 5,1 procent är 80 år eller äldre. I både riket och Västra Götaland är drygt 60 procent av befolkningen i arbetsför ålder (18-64 år). Medellivslängden är likartad i de olika regionerna i Sverige och är 81 år för män och 85 år för kvinnor.

Hälsa

En nyligen genomförd regional undersökning i mars 2023, baserad på officiell statistik och frågeformulär från Västra Götalandsregionen, visar att 7 av 10 män och kvinnor i Västra Götaland skattar sin hälsa som bra/mycket bra. Det finns en skillnad i uppfattning om hälsostatus för sociodemografiska faktorer; förutom kön och ålder finns en låg hälsostatus med ekonomiska svårigheter, förgymnasial utbildning, allvarlig funktionsnedsättning, missbruksproblem, ensamstående med barn, brist på känslomässigt stöd och ofrivillig ensamhet. Det finns också en stor skillnad i hälsa mellan olika områden i Göteborg som är relaterad till socioekonomiska faktorer.

Hälften av invånarna i Västra Götalandsregionen är överviktiga eller feta. Fetma är vanligast i åldersgruppen över 45 år, där det drabbar en av fem jämfört med en av tio i yngre åldersgrupper (16-29 år).

Socioekonomi och utrikes födda

I Göteborgs kommun var andelen hushåll med risk för fattigdom 16,6 procent 2021 och andelen hushåll med hög ekonomisk standard 7,6 procent. Andelen invånare med låg ekonomisk standard i Göteborgs kommun är 21 procent för åldersgruppen 0-19 år, 15 procent för åldrarna 20-64 år och 16 procent för åldrarna 65 år och äldre. I Göteborgs

kommun finns ca 174 000 utrikes födda personer, dvs ca 30 procent av den totala befolkningen, från 184 länder (år 2022). De länder som har flest invandrare (>4000 personer) är Iran (13 307), Irak (12 938), Somalia (9893), Indien (9392), Syrisk Arabrepubliken (9390), Bosnien och Hercegovina (7163), Polen (6039), Turkiet (5699), Jugoslavien (5603), Finland (5303), Kina (4585) och Afghanistan (4004).

Hubbens karaktär och ambitioner

Hubben i Göteborg startade officiellt i januari 2023 med Research Institute of Sweden (RISE) och Chalmers tekniska högskola som huvudpartners. RISE och Chalmers har samarbetat i flera andra forskning- och innovationsprojekt med vetenskaplig forskning, samla in data och dela kunskap genom utbildning, nätverk och utveckling av verktyg som aktörer kan använda för att stödja specifika målgrupper. RISE har flera års erfarenhet av att samarbeta med beslutsfattare, livsmedelssektorn och den offentliga måltidssektorn. Båda institutionerna är framstående inom forskning och har oberoende av varandra genomfört många forskningsprojekt tillsammans med företag och institutioner med fokus på innovation, teknik och hållbarhet.

Sedan hubben startades i början av 2023 har den fokuserat på att definiera sitt syfte, uppdrag och sina värderingar och har kommit en lång bit på väg. Det övergripande syftet med hubben handlar främst om att skapa en samverkande och inspirerande plats för att etablera partnerskap med aktörer inom den regionala livsmedelskedjan, den offentliga sektorn och civilsamhället. Hubben har identifierat att människor huvudsakligen har arbetat inom sina egna forskningsområden och att det är dags att överbrygga klyftan mellan olika discipliner. Därför ligger hubbens fokus på att använda all den kunskap som aktörer har samlat in kring hälsa och hållbarhet för att kunna utveckla ny handlingsbaserad forskning.

Projektteamet består av hubbens "core team" som är tre medarbetare från RISE (med ytterligare stöd från sju experter) och två forskare från Chalmers. Det gemensamma uppdraget har fört samman ett brett spektrum av kompetenser som består av tre experter inom områdena nutrition och hälsa, två experter på beteendeförändring, fyra experter på hållbara livsmedel och miljövänliga livsmedelssystem, en expert inom den offentliga måltidssektorn, en expert med restaurangerfarenhet och kommunikation och en expert på digitala verktyg.

Teamet har arbetat fram och kommunicerat fyra konkreta och ambitiösa missioner som hubben är dedikerad till, samt ett övergripande mål för 2027:

- Öka intaget av grönsaker, baljväxter och fullkornsprodukter;
- Öka intaget av hållbar fisk och skaldjur;
- Minska intaget av rött kött och salt, och
- Minska överkonsumtionen av diskreta livsmedel.

Det övergripande målet är att tillgängliggöra hälsosam mat för alla inom de planetära gränserna. År 2027 är målet att dubbelt så många invånare i Göteborg ska äta hälsosamt och hållbart.

Aktörsnätverket

I början av SWITCH-projektet (februari 2023) gjordes en inventering av potentiella aktörer till Switch inom Chalmers och RISE nätverk för Göteborgs- och Västra Götalandsregionen. Initialt identifierades 54 aktörer inom de kategorier som Switch definierat ska spegla ett regionalt livsmedelssystem. För denna första inventering blev den största kategorin beslutsfattare och nationella myndigheter (28%) och den minsta nutritionister (9%), medborgare (6%) och media (vardera 2%). Denna baslinje för potentiella aktörer baserar sig på redan existerande nätverk och relationer som projektgruppsmedlemmarna inom RISE och Chalmers har med institutioner, organisationer, företag, beslutsfattare och enskilda aktörer. Utifrån denna baslinje kommer hubben gå vidare med att etablera formella samarbeten samt inkludera fler aktörer som är relevanta för att kunna genomföra aktiviteter och nå projektmål.

Lanseringsevent

Den 18 oktober 2023 anordnade Göteborgshubben sitt första officiella aktörsevent: lanseringen av hubben. Eventet hölls på GoCo Health Innovation City, som är ett nybyggt distrikt där företag, organisationer och individer som arbetar inom life science och hälsa församman. Eventet syftade till att introducera SWITCH-projektet för aktörerna i det regionala livsmedelssystemet och för att inspirera och engagera dem i att bidra till projektets nästa faser.

Aktiviteterna och workshopparna under eventet baserades på teorin om salutogenes och syftade till att förstå varför aktörerna tycker att omställningen till ett hälsosamt och hållbart livsmedelssystem är viktig (meningsfullhet), hur de definierar ett hälsosamt och hållbart livsmedelssystem (begriplighet) och vilka resurser eller tillgångar de har att erbjuda eller behöver för att kunna bidra till denna omställning (hanterbarhet).

Cirka 70 enskilda aktörer från 43 olika organisationer deltog och engagerade sig i aktiviteterna; de reflekterade över vilken mat de skulle vilja se på sina tallrikar i framtiden, de fyllde i formulären relaterade till SOC-komponenterna, de lyssnade på panelsamtal med aktörer och ställde frågor till dem, och de engagerade sig i en workshop för att identifiera hinder, möjligheter och drivkrafter för att uppnå hubbens fyra missioner. Eventet genomsyrades i alla aspekter av temat hälsa och hållbarhet inkluderat maten som serverades som var vegansk och uppfyllde kriterierna för "One Planet Plate".

Dagen upplevdes av samtliga att ha en positiv atmosfär; aktörerna var engagerade under samtalen och paneldiskussionerna, ställde många frågor, tog sig tid att prata med varandra och delade berättelser om sina erfarenheter av mat både från sin professionella och personliga bakgrund. Många aktörer nämnde att de var positiva över att detta event gav dem kontakt med andra aktörer i livsmedelssystemet. Många aktörer stannade kvar efter eventets slut för att nätverka och prata med andra.

En stor mängd data samlades in vid eventet och analyserades med hjälp av Atlas.ti för att identifiera hinder och möjligheter för hälsosam och hållbar kost. Dessa hinder och möjligheter presenteras i nästa avsnitt.

Hinder och möjligheter för ett skifte till hälsosam och hållbar mat:

En översikt över hinder och möjligheter vilken baseras på dokumentation från den workshop som aktörerna deltog i under eventet.

Hinder

Aktörerna delade med sig av de hinder som de upplever för att engagera sig i ett skifte till ett mer hälsosamt och hållbart livsmedelssystem. De övergripande teman som identifierades var ekonomi och marknadsfaktorer, det sociokulturella landskapet, politik och lagar/reglering, kommunikation och riktlinjer samt resurser.

Ekonomiska och marknadsmässiga faktorer rör systemfrågor och inkluderar att det saknas en länk mellan utbud och efterfrågan för växtbaserade livsmedel och sjömat. Små producenter uppfattar offentlig upphandling som krånglig och när efterfrågan är låg är det för dyrt att investera i ny hållbar infrastruktur. När små företag saknar ekonomiskt stöd för att skala upp sin produktion produceras det för små volymer av regionala/lokala livsmedelsprodukter. I stället importeras en hög andel livsmedel i de volymer som kan tillgodose behov hos privata och offentliga aktörer. När det gäller efterfrågan hos konsument är ohälsosamma livsmedel ofta relativt billiga och mer lättillgängliga än växtbaserade livsmedel och sjömat.

Sociokulturella landskap relaterar till flera hinder och inkluderar okunskap om hållbar sjömat, baljväxter och växtbaserade livsmedel. Detta leder till att konsumenter har begränsade kunskaper om hur de ska tillaga dem och att det finns sensoriska hinder, dvs att dofter, texturer, smak upplevs som ovanliga eller inte smakar gott. Andra fördomar kring växtbaserade livsmedel som bidrar till en negativ bild är att de inte är mättande, inte smakar gott, är tråkiga och inte är riktig mat. Ett annat hinder är konservativa attityder till att ändra matvanor, särskilt när det gäller nya, obekanta livsmedel.

Hinder relaterar också till *normer* och inkluderar könsnormer där kött ses som maskulint, något som behövs för att vara stark och hälsosam. Köttsubstitut marknadsförs mot kvinnor och förknippas mer med att vara kvinna. Normen gäller också vad man ska äta på vilken plats, exempelvis att sockerrika, kolsyrade drycker och feta snacks ska ätas på nöjesplatser, att på restauranger förknippas kött och exklusiva fisk- och skaldjur med kvalitet, lyx och att unna sig. Behov som inte tillfredsställs med de föreställningar de flesta har om hälsosamma och hållbara livsmedel.

Hälsa och näring relaterat till övergången till ett mer hälsosamt och hållbart livsmedelssystem innebär att äta livsmedel med en annan näringsprofil. Att äta växtbaserade livsmedel med lägre biotillgänglighet kan av konsumenterna uppfattas som att de inte passar i en hälsosam kost. Ett annat hinder är att kostrekommendationer inte enbart förmedlas av formella institutioner, vilket har ändrat allmänhetens syn på vad som anses hälsosamt. Allt fler människor antar nya "alternativa" dieter eller försöker undvika t.ex. kolhydrater eller gluten. Andra upplevda hinder är risker relaterade till livsmedelssäkerhet på grund av miljöpåverkan, t.ex. mikroplast i haven och toxiner i fisk.

Ett ytterligare hinder är byråkrati och den utdragna processen för att få tillstånd, särskilt för vattenbruk. Slutligen uppfattas att det finns en lobby för animalisk produktion från såväl organisationer som på politisk nivå som ett hinder för målet att minska köttkonsumtionen.

Kommunikation och riktlinjer handlar om uppfattningen att det ges motstridiga budskap från officiella institut, myndigheter och organisationer och att det är svårt att få en överblick över riktlinjer, rekommendationer och projekt som pågår inom området hälsa och hållbarhet.

Tillräckligt med resurser ute i verksamheterna anges som ett hinder för faktisk förändring. Aktörerna upplever att det finns tillgängliga resurser, men att det rent praktiskt ändå inte finns tillräckligt med (arbets)tid, finansiering och expertkunskap för att genomföra och driva förändringsarbete.

Möjligheter

Under eventet tillfrågades aktörerna de möjligheter de ser för att övergå till ett mer hälsosamt och hållbart livsmedelssystem. Utifrån deras svar framgick sex tydliga teman; policy och regelverk, samarbete, hållbara livsmedelssystem, innovation, utbildning och inspiration samt kommunikation. Dessa teman relaterar till tidigare beskrivna hinder och kan därför vara resurser för att just övervinna dess.

Policy och regelverk avser att minska tillgängligheten till ohälsosamma och ej hållbara livsmedel, men öka tillgänglighet för de som är hälsosamma och hållbara. Exempel på möjlighet som gavs är att förbjuda vissa sorters livsmedel/utrymmesmat i idrottshallar eller att erbjuda gratis frukt i skolor. Vidare att påverka livsmedelspriserna i butik genom ändrade skatter, t.ex. en ökning av skatten på utrymmesmat och minska skatten på grönsaker och frukt.

Samarbete handlar om att dela kunskap och expertis i aktörsnätverk eller samarbeta med aktörer i hela värdekedjan för att dela kostnader och sänka priserna för konsumenterna. Aktörerna beskrev det som värdefullt att träffa likasinnade för att nätverka och dela idéer för att utvecklas. Ett konkret exempel är att nätverka och samarbeta över kommunala gränser, eller att samarbeta med influencers på sociala medier för att med deras hjälp skingra matmyter. Mycket felaktig information och budskap sprids på sociala medier varför aktörer ansåg att en möjlighet är att utbilda och ge dem korrekt fakta och kunskap om hälsosamma och hållbara livsmedel.

Hållbara livsmedelssystem avser livsmedelsproduktion och teknik. Aktörer uppfattar det som en möjlighet att förmedla tillgänglig kunskap för att öka hållbarheten i livsmedelsproduktionen, t.ex. om biologisk mångfald och cirkularitet genom att använda matavfall i andra delar av värdekedjan. För att främja självförsörjning uppfattar aktörer att det är viktigt att öka den lokala livsmedelsproduktionen och använda resurser som finns i regionerna, t.ex. hållbart fiske och sjömat. På samhällsnivå uppfattades blå och grön trädgårdsodling som en möjlighet, vilket innebär att med gemensamma krafter för att ta hand om en land- eller sjölott för att odla egen mat och bli mer självförsörjande som samhälle.

Innovation avser att nyttja och kombinera en mångfald av livsmedel, företag och teknik. Möjligheter som angavs var att ta fram nya sätt att producera köttsubstitut, använda recept från andra matkulturer och använda kött eller fisk som krydda eller smakförstärkare istället för som en huvudkomponent. Nya produkter och livsmedel av råvaror som baljväxter, alger och havsgrönsaker kan skapa nya affärsmöjligheter. Detta uppfattade aktörer som ett sätt att etablera sitt varumärke som nyskapande och en föregångare. Att utveckla nya produkter och få tillgång till testarenor som erbjuder provningar smakpaneler kan ge mindre företag möjligheter att öka innovationstakten. Artificiell intelligens (AI) kan nyttjas som en möjlighet att minska matsvinnet, ex att AI skapar recept baserat på rester i kylan, preferenser, näringsbehov och annan relevant information.

Utbildning handlar om att skapa acceptans och förtroget för nya livsmedel, dofter, smaker och texturer för hälsosamma och hållbara livsmedel i allmänhet. Detta kan göras genom att använda måltidspedagogik i och utanför skolan. Måltidspedagogik arbetar med livsmedel relaterat till vardagliga färdigheter som att odla, handla, förbereda, laga, smaka och slänga mat. Andra möjligheter att restaurangkök kan fokusera på att erbjuda positiva sensoriska upplevelser genom att i servera vällagade och välsmakande alternativ med nya råvaror och produkter som är växtbaserade och/eller från hållbar sjömat.

Inspiration och kommunikation handlar om att inspirera allmänheten att ändra sitt beteende. I stället för att ställa krav på en obligatorisk förändring för kockar, kan en möjlighet vara att inspirera dem att utmana sina kulinariska färdigheter. Något som kan bidra till det uppfattas som meningsfullt och givande för deras arbete och utveckling. Om kockar uppfattar växtbaserade livsmedel som en kreativ möjlighet kan det stimulera dem att erbjuda välsmakande, attraktiva växtbaserade måltider som i sin tur inbjuder kunder att prova. Unga kockar, som är en del av den yngre generationen, kan förmedla en positiv inställning till växtbaserade livsmedel och fungera som förebilder. Det är också viktigt att påminna föräldrar och andra vuxna att de är viktiga förebilder för barn vad gäller livsstil och matval. På systemnivå är engagemang och stöd för gräsrotsinitiativ viktigt, liksom kontinuerlig samordning och ledning av projekt. På en övergripande besluts- och ledningsnivå är det viktigt att säkerställa och leda så att samhälle, verksamheter och organisationer har en gemensam riktning, blir inspirerade och tillsammans arbetar mot det gemensamma målet att skifta till ett mer hälsosamt och hållbart livsmedelssystem.

Slutsatser och kommande aktiviteter

Baserat på data som samlades in vid aktörseventet identifierades många möjligheter och hinder i regionens livsmedelssystem. Systemiska utmaningar för livsmedelssystemet såsom (brist på) tillgänglighet till livsmedel, brist på utbud eller efterfrågan på livsmedel, finansiella och regulatoriska svårigheter för småföretag, liksom byråkrati och brist på politiskt intresse för förändring utgör allvarliga hinder.

Andra viktiga hinder relaterade till det sociokulturella landskapet, såsom konservativa matvanor, okunskap om nya livsmedel, ifrågasatt hälsokunskap och normer i samhället, vilka också bidrar till motstånd mot förändring. För att kunna övergå till ett hälsosamt och hållbart livsmedelssystem måste dessa systemiska, sociokulturella och individuella hinder hanteras.

De möjligheter som identifierades relaterade till de ovannämnda hindren och föreslagna fokuspunkter för att hjälpa övergången framåt. Dessa möjligheter finns på en systemisk, samhällslig, sociokulturell och individuell nivå och är sammankopplade. Särskild vikt läggs vid utbildningssystemet, där den unga generationen måste bli bekant med och få lustfyllda sensoriska upplevelser av nya livsmedel, exempelvis genom praktisk erfarenhet och upplevelsebaserat lärande. Det är nödvändigt att inspirera nya och äldre generationer att förändra sina tankesätt, att skapa engagemang för hälsa och hållbarhet, och att kliva fram och vara en förebild.

Andra möjligheter som angavs var samarbete och anpassning mellan aktörer i livsmedelssystemet, till exempel samarbete genom värdekedjan för livsmedelsproduktion, samarbete över kommungränser och skapande av en gemensam agenda eller en nationell förening. Vidare nämndes innovationer inom utveckling av livsmedelsprodukter liksom att diversifiera användningen av befintliga livsmedel. Slutligen behövs finansiella och regulatoriska förändringar för att stödja aktörerna i att göra de ovan nämnda förändringarna. Eftersom möjligheterna är sammankopplade är det nödvändigt att använda ett holistiskt tillvägagångssätt för att utnyttja de möjligheter som har presenterats.

Livsmedelshubbens första interaktiva evenemang med intressenter kan ses som starten på ytterligare utveckling av hubben. De hinder, möjligheter och drivkrafter som identifierades under eventet representerar de aktörer som deltog. Naturligtvis kunde bilden ha varit annorlunda med andra deltagande aktörer. Denna inledande kartläggning är således inte en absolut sanning och måste tolkas med försiktighet. Vi ser den dock som en bra utgångspunkt för fortsatt dialog och samarbete med fler intressenter i regionen.

Nästa steg för hubben blir att bjuda in till ett webinarium i december där vi sammanfattar resultaten av eventet och presenterar en plan för hur vi ska gå vidare. Vi kommer att fortsätta att bjuda in fler aktörer att samarbeta med oss för att få en så komplett representation av livsmedelssystemet i regionen som möjligt.

Vår väg framåt kommer att vara att bilda tematiska arbetsgrupper baserade på våra fyra missioner, ledda av experter från Chalmers och RISE. I dessa arbetsgrupper kan vi sedan, som ett nästa steg, börja konkret planera för aktiviteter och testpiloter baserat på aktuell forskning och kunskap inom hälsa och hållbarhet och beteendeförändring i samverkan med aktörernas idéer, identifierade behov och Switchs övergripande mål. Det första mötet för arbetsgrupperna och aktörerna kommer att vara i slutet av februari, ett fysiskt event med nuvarande och nya aktörer för att gå in i nästa projektfas med konkret aktivitetsplanering.

Vi kommer framåt även att utforska utmaningar och möjligheter för sårbara och marginaliserade grupper. Vår ambition är att se till att aktiviteter och pilottester inkluderar olika socioekonomiska grupper så att skiftet av livsmedelssystemet blir rättvis och tillgänglig för alla. I vår region, liksom i resten av Sverige, är det en stor utmaning att nå ut till de grupper i samhället som har de högsta fattigdoms- och ohälsotalen. Vi hoppas att vi tillsammans med våra intressenter kan hitta vägar och strategier som gör skillnad för de som behöver det mest. Om vi når ut och hittar fungerande modeller som kan skalas upp kan Switch få en mycket positiv inverkan för både samhället och individen.

A. References

- Adefila, A., Chen, Y.F., Dang, Q., Dewinter, A., Antonelli, M., Massari, S., et.al. (2021) Integrating Sustainability-Oriented Ecologies of Practice Across the Learning Cycle: Supporting Transformative Behaviours in Transgenerational, Transnational and Transdisciplinary Spaces. *Discourse and Communication for Sustainable Education*, vol.12, no.2, pp.142-154. <https://doi.org/10.2478/dcse-2021-0022>.
- Allievi F., Massari S., Recanati F., Dentoni D., Empathy, food systems and design thinking for fostering youth agency in sustainability: A new pedagogical model, Editor(s): Massari S., In *Woodhead Publishing Series in Consumer Sci & Strat Market, Transdisciplinary Case Studies on Design for Food and Sustainability*, Woodhead Publishing, pp. 2021, 197-216.
- Anagrafe Nazionale Zootecnica, Ministero della Salute, Consistenza Allevamenti e Capi Dal Censimento Annuale, 2023, https://www.vetinfo.it/j6_statistiche/#/report-pbi/29 ,
- Antonovsky, A. (1987). *Unravelling the mystery of health: How people manage stress and stay well*. Jossey-Bass.
- Antonovsky, A. (1996) The salutogenic model as a theory to guide health promotion, *Health Promotion International*, Vol.11, Issue 1, pp. 11–18, <https://doi.org/10.1093/heapro/11.1.11>
- Antonelli, M., Cadel, E., & Massari, S. (2020). Educating to Active Citizenship Through Food and Environmental Sustainability Towards 2030, *Equilibri. Rivista per lo sviluppo sostenibile*, 1/2020, 98-104. <https://www.rivisteweb.it/doi/10.1406/97540>
- Arola, L.A., Barenfeld, E., Dahlin-Ivanoff, S. & Häggblom-Kronlöf, G. (2018). Distribution and Evaluation of Sense of Coherence among Older Immigrants before and after a Health Promotion Intervention; Results from the RCT Study Promoting Ageing Migrants' Capability. *Clin Interv Aging*. 13, 2317–2328. doi:10.2147/CIA.S177791.
- Bacon, L., & Krpan, D. (2018). (Not) Eating for the environment: The impact of restaurant menu design on vegetarian food choice. *Appetite*, 125, 190-200. doi: <https://doi.org/10.1016/j.appet.2018.02.006>
- Biswas, A., & Roy, M. (2016). A study of consumers' willingness to pay for green products. *Journal of Advanced Management Science*, 4(3), 211-215.
- Blay-Palmer, A., Landman, K., Knezevic, I., & Hayhurst, R. (2013). Constructing resilient, transformative communities through sustainable "food hubs". *Local Environment*, 18(5), 521-528. <https://doi.org/10.1080/13549839.2013.797156>
- Böhme, T., Stanzus, L., Geiger, S., Fischer, D., & Schrader, U. (2018). Mindfulness Training at School: A Way to Engage Adolescents with Sustainable Consumption? *Sustainability*, 10(10), 3557. <https://depositonce.tu-berlin.de/bitstream/11303/9999/1/sustainability-10-03557.pdf>

Bouwman, L. (2019) Methodology for the validation at companies and universities set-up. Deliverable C4.1 LIFE SU-EATABLE LIFE16 GIC/IT/000038. Reducing carbon emissions in the EU through sustainable diets.

Bouwman, L. & Rosen, L. (2022) First report on the socio-economic impact at companies and universities. Deliverable D2.1 LIFE SU-EATABLE LIFE16 GIC/IT/000038. Reducing carbon emissions in the EU through sustainable diets.

Braathen, E., Wilde, D., Ole Borgen, S., Eika, A., Karyda, M., Søvik, A. (2021). Living Labs for Urban Food System Transformation - an inventory report. Fostering the Urban food System Transformation through Innovative Living Labs Implementation Project.

Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., ... & Palgan, Y. V. (2017). Urban Living Labs: governing urban sustainability transitions. *Current Opinion in Environmental Sustainability*, 22, 13-17.

Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., Marvin, S., McCormick, K., van Steenberg, F. and Palgan, Y.V., 2016. Urban living labs: governing urban sustainability transitions. *Current opinion in environmental sustainability*, 22, pp.13-17.

Copernicus Land Monitoring Service, Land Cover and Land Use Mapping, <https://land.copernicus.eu/en/products/corine-land-cover/clc2018> (CORINE Land Cover 2018, Europe).

Cullen, T., Hatch, J., Martin, W., Higgins, J. W., & Sheppard, R. (2015). Food literacy: definition and framework for action. *Canadian Journal of Dietetic Practice and Research*, 76(3), 140-145

Deschesnes, M., Drouin, N., Tessier, C., & Couturier, Y. (2014). Schools' capacity to absorb a Healthy School approach into their operations: Insights from a realist evaluation. *Health Education*, 114(3), 208–224. <https://doi.org/10.1108/HE-10-2013-0054>

Dziuba A., Krell-Roesch J., Schmidt S.C.E., Bös K. & Woll, A. (2021). Association Between Sense of Coherence and Health Outcomes at 10 and 20 Years Follow-Up: A Population-Based Longitudinal Study in Germany. *Front. Public Health* 9:739394. doi: 10.3389/fpubh.2021.739394

ENoLL (2023) European Network of Living Labs. accessible at <https://enoll.org/>

Eriksson, M. & Lindström, B. (2005). Validity of Antonovsky's sense of coherence scale: A systematic review. *Journal of Epidemiology & Community Health*, 59(6), 460–466. <https://doi.org/10.1136/jech.2003.018085>

Eriksson M. & Lindström B. (2006). Antonovsky's sense of coherence scale and the relation with health: a systematic review. *J Epidemiol Community Health*. May ;60(5):376-81. doi: 10.1136/jech.2005.041616. PMID: 16614325; PMCID: PMC2563977

Eriksson, M. (2022). Chapter 9: The Sense of Coherence: The Concept and Its Relationship to Health. In *The Handbook of Salutogenesis*. Springer International Publishing. <https://link.springer.com/10.1007/978-3-030-79515-3>

Escobar, A. (2018). *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds*. Duke University Press.

Esbjörn-Hargens, S. (2010). An overview of Integral Theory: An all-inclusive framework for the twenty-first century. In S. Esbjörn-Hargens (Ed.), *Integral Theory in action: Applied, theoretical, and constructive perspectives on the AQAL model*, State University of New York Press, pp. 33–61.

Levay, A. V., Chapman, G. E., Seed, B., & Wittman, H. (2020). Examining school-level implementation of British Columbia, Canada's school food and beverage sales policy: A realist evaluation. *Public Health Nutrition*, 23(8), 1460–1471. <https://doi.org/10.1017/S1368980019003987>

Levkoe, C. Z., Hammelman, C., Craven, L., Dandy, G., Farbman, J., Harrison, J., & Mount, P. (2018). Building Sustainable Communities Through Food Hubs: Practitioner and Academic Perspectives. *Journal of Agriculture, Food Systems, and Community Development*, 8(2), 107–122. <https://doi.org/10.5304/jafscd.2018.082.008>

Lianu, C., Simion, V.E., Urdes, L., Bucea-Manea-Țoniș, R., Radulescu, I.G. and Lianu, C., (2023), Agroecological Approaches in the Context of Innovation Hubs. *Sustainability*, 15(5), p.4335.

Liu, W., Sidhu, A., Beacom, A. M., & Valente, T. W. (2017). Social Network Theory. In P. Rössler, C. A. Hoffner, & L. Zoonen (Eds.), *The International Encyclopedia of Media Effects* (1st ed., pp. 1–12). Wiley. <https://doi.org/10.1002/9781118783764.wbieme0092>.

Maher, J., & Burkhart, S. (2017). Experiential learning for engaging nutrition undergraduates with sustainability. *International Journal of Sustainability in Higher Education*, 18(7), 1108–1122. <https://doi.org/10.1108/IJSHE-01-2016-0010>

Malapit, H. J., Quisumbing, A.R. & Hodur, . (2020). Intersectionality and addressing equity in agriculture, nutrition, and health. A4NH Strategic Brief October 2020. Washington, DC: International Food Policy Research Institute (IFPRI). <https://doi.org/10.2499/p15738coll2.134153>

Manikas, I., Malindretos, G., & Moschuris, S. (2019). A Community-Based Agro-Food Hub Model for Sustainable Farming. *Sustainability*, 11(4), 1017. <https://www.mdpi.com/2071-1050/11/4/1017>

Massari S., (ed.) (2021), *Transdisciplinary Case Studies on Design for Food and Sustainability*, Sawston: Woodhead Publishing.

Massari S., Allievi F. and Recanatil F. (2021) . Fostering empathy towards effective sustainability teaching: from the Food Sustainability Index educational toolkit to a new pedagogical model. In Leal Filho, W., Salvia, A.L., Frankenberger, F. (Eds) *Handbook on Teaching and Learning for Sustainable Development*. Edward Elgar Publishing, Cheltenham.

Massari S., Antonelli M., Principato L., Pratesi C.A. (2021). Design Thinking to Engage Consumers in Achieving Zero Waste Food Experiences: The CEASE Framework. In: Batat W. (eds) *Design Thinking for Food Well-Being*. Springer, Cham.

Massari, S. (2023). Food designs for pluriverse; From participatory approaches to product and service design, designers re-think the agri-food pluriverse. *Revista Latinoamericana de Food Design*. No. 4. 31-47. Access: <https://drive.google.com/file/d/12nbGEkCmlAjCHdAL-J9F3ixjiHFajVhh/view?pli=1>

Massari S., Roversi S., (2023) Mutualism, Integral Ecology and Regenerative Mindset: The Paideia Campus as an Innovative Pedagogical Practice Model. *Social and Economic Studies within the Framework of Emerging Global Developments Volume 3*, 331.

Massari, S., Galli, F., Mattioni, D. and Chiffolleau, Y. (2023). Co-creativity in Living Labs: fostering creativity in co-creation processes to transform food systems *JCOM* 22(03), A03. <https://doi.org/10.22323/2.22030203>

McCrary, G., Schöpke, N., Holmén, J., & Holmberg, J. (2020). Sustainability-oriented labs in real-world contexts: An exploratory review. *Journal of Cleaner Production*, 277, 123202.
<https://doi.org/10.1016/j.jclepro.2020.123202>

Márquez-Palacios, J. H., Yanez-Peñúñuri, L. Y., & Salazar-Estrada, J. G. (2020). Relationship between sense of coherence and diabetes mellitus: a systematic review. *Ciência & Saúde Coletiva*, 25, 3955-3967.

Oostindjer, M., Aschemann-Witzel, J., Wang, Q., Skuland, S. E., Egeland, B., Amdam, G. V., . . . Van Kleef, E. (2017). Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children's diet and food consumption? A cross-national comparative perspective. *Critical Reviews in Food Science and Nutrition*, 57(18), 3942-3958.
<https://doi.org/10.1080/10408398.2016.1197180>

Pérez-Wilson P, Marcos-Marcos J, Morgan A, Eriksson M, Lindström B & Álvarez-Dardet, C. (2021). 'A synergy model of health': an integration of salutogenesis and the health assets model. *Health Promot Int.* 24;36(3):884-894. doi: 10.1093/heapro/daaa084. PMID: 32968813.

Polhuis, K. (2023). Flourish and Nourish; Development and Evaluation of a Salutogenic Healthy eating Programme for People with Type 2 Diabetes Mellitus. PhD thesis, Wageningen University.

Radulescu, M., Leendertse, W. & Arts, J. (2022). Living Labs: A Creative and Collaborative Planning Approach. In A. Franklin (Ed.), *Co-Creativity and Engaged Scholarship: Transformative Methods in Social Sustainability Research* (pp. 457-491). Palgrave MacMillan.
https://doi.org/10.1007/978-3-030-84248-2_15

Rajabi, S., Kilgour, D.M. & Hipel, K.W. (1998) Modelling action-interdependence in multiple criteria decision making. *European Journal of Operational Research*. Vol.110, Issue 3, 490-508,
[https://doi.org/10.1016/S0377-2217\(97\)00318-4](https://doi.org/10.1016/S0377-2217(97)00318-4)

Rosen, L. & Bouwman, L. (2022). Second report on the validation at companies and universities. Deliverable C4.3 LIFE SU-EATABLE LIFE16 GIC/IT/000038. Reducing carbon emissions in the EU through sustainable diets.

Roversi, S (2023) "A Model of Integral Ecological Regeneration: The Power of Marginal Areas". In: *Livable Cities for the Future*. Eds. Metha, G. and Kukreja, D.C.. New Delhi: ORF and Global Policy Journal.

Ryan, R.; Patrick, H.; Deci, E.; Williams, G. (2008) Facilitating Health Behaviour Change and Its Maintenance: Interventions Based on Self-Determination Theory. *The European Health Psychologist*

Schöpke, N., Bergmann, M., Stelzer, F., Lang, D. J., & Guest, E. (2018). Labs in the Real World: Advancing Transdisciplinary Research and Sustainability Transformation: Mapping the Field and Emerging Lines of Inquiry. *GAIA - Ecological Perspectives for Science and Society*, 27(1), 8-11.
<https://doi.org/10.14512/gaia.27.S1.4>

Simons, P. (2021) Spillover effects in sustainable food behaviour. MSc thesis report Wageningen University. Available from <https://edepot.wur.nl/555784>

Sinek, S. (2009), *Start with Why: How Great Leaders Inspire Everyone to Take Action*, London: Penguin Group.

SINAB, Sistema di Informazione Nazionale sull'Agricoltura Biologica, 2022, <https://www.sinab.it/superfici>

Sonnino, A., Carrabba, P., Curatella, M., Renzo, E.D., Fumagalli, L., Iannetta, M., Massari, S., Pistella, F., Rossi, L., Rufo, F., Sarcina, P., Sepede, L., & Valentec, M. (2021). (Re)thinking science-society dialogue: the case of food and agriculture system. *Transdisciplinary Case Studies on Design for Food and Sustainability*.

Swan E, Bouwman L, Hiddink GJ, Aarts N, Koelen, M. (2015). Profiling healthy eaters: Determining factors that predict healthy eating practices among Dutch adults. *Appetite*. Jun; 89: 122-30. doi: 10.1016/j.appet.2015.02.006

Swan, E., Bouwman, L., Aarts, N., Rosen, L., Hiddink, G. J., & Koelen, M. (2018). Food stories: Unravelling the mechanisms underlying healthful eating. *Appetite*, 120, 456–463. <https://doi.org/10.1016/j.appet.2017.10.00>

Tan, G. & Bouwman, L. (2020) First report on the validation at companies and Universities. Deliverable C4.2 LIFE SU-EATABLE LIFE16 GIC/IT/000038. Reducing carbon emissions in the EU through sustainable diets.

Valente, T. W. (2012). Network interventions. *Science*, 337 (6090), 49 49-53.

Van Vooren, N.J.E., Janssen, L. M. S., Drewes, H. W., Baan, C. A., & Bongers, I. M. B. (2023). How to collaborate for health throughout the project timeline – a longitudinal study reflecting on implemented strategies in three projects for a healthy living environment. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-022-14898-9>

Vignoli, M., Roversi, S., Jatwani, C., & Tiriduzzi, M. (2021). Human and planet centered approach: Prosperity thinking in action. *Proceedings of the Design Society*, 1, 1797-1806.

Wainwright NW, Surtees PG, Welch AA, Luben RN, Khaw KT, Bingham SA. (2007). Healthy lifestyle choices: could sense of coherence aid health promotion? *J Epidemiol Community Health*. 61(10):871-6. doi: 10.1136/jech.2006.056275. PMID: 17873222; PMCID: PMC2652963.

Weissbecker, I.; Salmon, P.; Studts, J.L.; Floyd, A.R.; Dedert, E.A. & Sephton, S.E. (2002). Mindfulness-Based Stress Reduction and Sense of Coherence Among Women With Fibromyalgia. *J Clin Psychol Med Settings*. 9, 297–307.

Wind, K.S. (2021). *What Causes Health? Revisiting the Social Determinants of Health (SDH) through a Salutogenic Lens and Self-Reported Health (SRH) as the main outcome: a realist evaluation*. PhD thesis. University of Toronto. https://tspace.library.utoronto.ca/bitstream/1807/108679/1/Wind_Keiwan_Seiedi_202111_PhD_thesis.pdf

van Woerkum, C., & Bouwman, L. (2014). 'Getting things done': an everyday-life perspective towards bridging the gap between intentions and practices in health-related behaviour. *Health Promotion International*, 29(2), 278-286. doi:10.1093/heapro/das059

Annexes

Annex 1. Overview key learnings SU-EATABLE LIFE project

Annex 2. Template Exercise KoM

Annex 3. Instructions actor network analysis

Annex 4. Template actor network analysis

Annex 5. Overview baseline actor analysis

Annex 6. Hub Workshop 1

Annex 7. Hub Workshop 2

Annex 8. Hub Workshop 3

Annex 9. Co-design presentation

Annex 10. Protocol Hub inventories

Annex 11. Salutogenic Interview method

Annex 12. Hub salutogenic actor survey

Annex 13. Format Hub fingerprints

Annex 14. Findings Salutogenic Interviews Hub 2. Cagliari

Annex 15. HUB communication template (SHFH)

Annex 16. Format Hub events

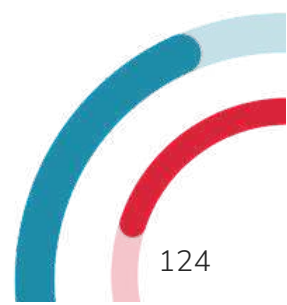
Annex 17. Results Hub 1. Rome kick-off meeting workshops

Annex 18. Hub fingerprint summaries, English

Annex 1. Overview key learnings SU-EATABLE LIFE project

topic	learnings SU-EATABLE
promotion and communication	make everything about the food
	involve all staff, management and customers in the co-creative, participatory process to induce empowerment, sense of agency & ownership of activities
	provide a flexible, open engagement model that allows locations to select site-relevant activities
	keep activities very practical, many people learn by doing. Creating fun activities and events with tasting may ignite engagement among customers and staff
	use a positive, solution-oriented communication style that shows people what they can do rather than what they cannot do
	emphasise the importance of the fun, practical learnings provided in the greenApes app and make the app available to customers, staff and management;
	promote simple, low budget sustainable and healthful meals; launch with a bang and keep the momentum going
	create a weekly communication schedule linking back to the food and the people behind it on relevant social media and on-site platforms
	Include learning about other pro-environmental choices to further lower CO2 emissions and water use
customer engagement	involve customers in the co-learning process from the very beginning
	make sustainable dishes the star of the show; eating is an opportunity to open a doorway towards sustainable eating by providing customers with a positive experience of sustainability through an enjoyable meal;
	link these dishes to something that resonates personally (i.e., helping a local farmer, personal health)
	provide practical, easy tips on small actions that they can make to contribute and know how this makes a difference
	provide 'doing' activities on-site and information on how to do this at home, for instance by sharing recipe cards of favourite sustainable dishes

staff engagement	allocate budget and time to support the change process towards sustainability
	include learning tools for all staff
	have daily meetings that set the sustainable tone for the day
	ensure all staff feels surrounded by 'sustainable diets', this contributes to motivation, knowledge and action at professional and personal level tap into the chef's own creativity and provide them with calculation tools to adapt existing and invent new sustainable meals
	support the chef's creations to communicate sustainable deliciousness to other staff and to customers
	organise taste sessions of new dishes so floor staff can explain the 'why' of sustainable meal choice to customers and help boost sales
	collaborate with local suppliers to ensure steady supply of sustainable produce
	update chefs on new, low-cost & tasty meat substitutes



Annex 2. Template Exercise KoM

Policymakers <small>EU commissions and other institutions at national, regional and local level. The focus of communication, dissemination and exploitation will be in particular on this target group, providing open science tools and policy recommendations which allow competent authorities to translate the scientific evidence into easy-to-understand food-based dietary guidelines.</small>				
Inform <small>sharing knowledge</small>	Consult <small>solicit advice and input</small>	Involve <small>on-going work, learn, share with actors</small>	Collaborate <small>partnering for development, delivery of activities</small>	Empower <small>support actors in their actions</small>
MAIN GOAL				
MAIN EXPECTED OUTCOME (long term result and impact)				
MAIN RISK AND/OR CHALLENGE				
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc. etc...)				
1.	1.	1.	1.	1.
2.	2.	2.	2.	2.
3.	3.	3.	3.	3.
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1.	1.	1.	1.	1.
2.	2.	2.	2.	2.
3.	3.	3.	3.	3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				

Annex 3. Instructions actor network analysis

There are many ways for regional actors to connect and such connections can range from informal (e.g., two actors sharing information) to be more organised (e.g., actors working closely to achieve a shared vision). We will use 5 types to determine the current level of Hub actor connections:

- know the actor: no personal interaction;
- network with the actor: exchange information, talk with each other for mutual benefit;
- cooperate with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement;
- coordinate with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues;
- fully collaborate with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

This typology of connection levels is based on the framework developed by the Education Development Centre ([Levels of Collaboration \(edc.org\)](https://www.edc.org/)). This non-profit aims to advance education, health and economic opportunities globally. During the SWITCH project, the above listed characteristics will be adjusted to match the insights on how to effectively work together within the Hub regions.

The overview of SWITCH Hub connections is useful to determine your current level of connectivity, indicate options for strengthening and expanding existing connections and explore options for collaborating with new actors. No single type of collaboration is per se “better” than another. The best type is the one that is the best fit, given what you and your actors aim to achieve. WU will apply social network analysis to establish the SWITCH baseline for actor connectivity as part of the SWITCH goal to increase overall actor connectivity by 50%. For some Hubs, connectivity will be high at baseline while for other Hubs, this will grow over the coming years.

Instructions

1. Please add/delete actors that are missing or not relevant in the overview. The excel sheets are from a while ago, it may be that some things have changed.
2. Please check whether the actors are classified under the correct type (e.g. policy makers, food providers)
3. It is important to be as specific as possible (e.g., name, contact person). So, not caterer or university but caterer X and University Y. And in the case of the university, for example, the name of a contact person if possible. These can be added in a separate column at the end, if needed.
4. There is no right or wrong. This data is for the analysis of the baseline of actor connectivity for Work-Package 4.

If you have questions, please email noraly.vantinteren@wur.nl and/or leah.rosen@wur.nl

Annex 4. Template actor network analysis

Actors	Type of connection*				
	knowing	networking	cooperate	coordinate	fully collaborate
Policymakers and food national competent authorities					
Food providers - farmers and fisherman					
Food services and hospitality - caterers, chefs, restaurants					
Education system - e.g. schools, universities, Kitchen schools					
Nutritionists, healthcare providers					
Citizens and general public					
(social) Media and journalists					
Other					

* **know** the actor: no personal interaction; **networking** with the actor: exchange information, talk with each other for mutual benefit; **cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; **coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; **fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Annex 5. Overview Hub baseline assessment actor connectivity

Hub 1. Rome and Lazio region (Italy)

Table 1. Baseline actor connections within the Agro Camera network (February 2023)

Actors (N=19)	Type of connection
Policymakers and food national competent authorities (n=9; 47.4%)	1 networking, 4 cooperation, 1 coordination, 3 full collaboration
Food providers - farmers and fisherman (n=2, 10.5%)	Networking
Food services and hospitality - caterers, chefs, restaurants (n=0; 0%)	
Education system - e.g. schools, universities, Kitchen schools (n=3; 15.8%)	Cooperation
Nutritionists, healthcare providers (n=1; 5.3%)	Coordination
Citizens and general public (n=0; 0%)	
(social) Media and journalists (n=0; 0%)	
Other (n=4; 21%)	Cooperation

* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Table 2. Evolution of actor connections within the Agro Camera network (October 2023)

Actors (N=82)	Type of connection
Policymakers and food national competent authorities (n=21; 25.6%)	5 knowing, 5 networking, 7 cooperation, 1 coordination, 3 full collaboration
Food providers - farmers and fisherman (n=18, 22%)	7 knowing, 7 networking, 4 cooperation

Actors (N=82)	Type of connection
Food services and hospitality - caterers, chefs, restaurants (n=9; 11%)	5 networking, 2 cooperation
Education system - e.g. schools, universities, Kitchen schools (n=15; 18.3%)	4 knowing, 7 networking, 4 cooperation
Nutritionists, healthcare providers (n=4; 4.9%)	1 cooperation, 3 coordination
Citizens and general public (n=1; 1.2%)	Knowing
(social) Media and journalists (n=2; 2.4%)	Networking and cooperation
Other (n=12; 14.6%)	2 knowing, 4 networking, 3 cooperation, 3 coordination

Hub 2. Cagliari and Sardinia region (Italy)

Table 3. Baseline actor connections within the Cagliari region (Februari 2023)

Actors (N=26)	Type of connection
Policymakers and food national competent authorities (n=5; 19.2%)	
Assessorato dell'Agricoltura e Riforma Agro - pastorale	fully collaboration (rural communities)
Assessorato della Difesa Dell'Ambiente della Regione Sardegna	coordination (information systems)
ANCI Sardegna	coordination

Actors (N=26)	Type of connection
Local entities	networking and cooperation
Other regional agencies	cooperation (AGRIS Sardegna)
Food providers - farmers and fishermen (n=10, 38.5%)	
Small to medium enterprises and small food producers/farmers	networking (organic farming producers)
Educational farms and suppliers of agri-food products	networking
Agricultural trade associations	networking
Protection consortia	networking
Agri-food producers interested in operating in the collective catering market	networking
Farmers markets	networking
Agrobiodiversity producers	networking
Local market operators	networking
Small-scale fishing operators	networking
Fishermen's cooperatives	networking
Food services and hospitality - caterers, chefs, restaurants (n=1; 3.8%)	
Local experts	networking
Education system - e.g. schools, universities, Kitchen schools (n=6, 23.1%)	
School catering service managers	networking
Hospitality institutions	networking

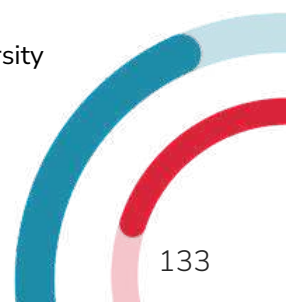
Actors (N=26)	Type of connection
Sports federations	networking
Agritourism operators	networking
Ente Regionale per il Diritto allo Studio Universitario di Sassari (ERSU)	networking
Università di Sassari	networking
Nutritionists, healthcare providers (n=1; 3.8%)	
Experts in food nutrition from the ASL (the local health entity) Sardegna	networking (organic food)
Citizens and general public (n=1; 3.8%)	
Elders	networking
(social) Media and journalists (n=1; 3.8%)	
Journals	know
Other (n=1; 3.7%)	
Slow Food	networking

* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Actors (N= 40) / (N= 56)	Type of connection
ENBA (Farmers association) Baserria Km 0 -cooperative of livestock producers Canned fish companies – ISABEL Local Fishermen Iztueta Baserria (farm) Basque Seed Network (Red de Semillas de Euskadi) D'Elikatuz (Ordizia) Basque Food Cluster EHKolektiboa Elkartea	Networking Knowing Knowing Knowing Networking Knowing Knowing Knowing
Food services and hospitality - caterers, chefs, restaurants (n=7; 17,50%) / (n=8; 14,29%)	
Azurmendi (***)restaurant) LABe Ausolan Eroski Makro Consumption cooperatives ³⁸ <ul style="list-style-type: none"> - Lurtarro - Biziola - Igeldo - Irun Fede Pacha / Gure Elikagai Cocina Regenerativa	Cooperation Full collaboration Full collaboration Full collaboration Knowing Networking Networking Networking Networking Networking Knowing Knowing
Education system - e.g. schools, universities, Kitchen schools (n=6, 15%) / (n=7, 12,50%)	
Neiker (technological centre of agriculture in the Basque Country) Schools in San Sebastian (currently working with 2) UPV/EHU University of the Basque Country ³⁹ UPNA University of Navarra Agronomists, botanics Mondragon University – BCCinn Cooking school of Leioa (Escuela de hostelería de Leioa)	Coordination Coordination Networking Networking Networking Full collaboration Knowing
Nutritionists, healthcare providers (n=4; 10%) / (n=4, 7,14%)	
Nutritionist	Knowing Coordination

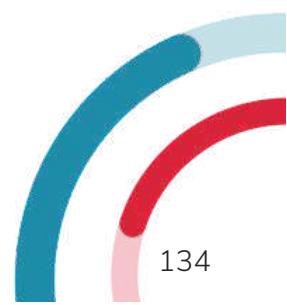
³⁸ The same case of the municipalities.

³⁹ We are considering the university community, even if some concrete members of the university have been contacted.



Actors (N= 40) / (N= 56)	Type of connection
Osakidetza, Health Department Basque Government Osakidetza, Oncology Hospital Faculty of Medicine, University of the Basque Country	Full collaboration Knowing
Citizens and general public (n=2; 5%) / (n=2; 3,57%)	
Citizens: <ul style="list-style-type: none"> - General citizenship - People who own a garden they cultivate - Ekoliderrak? 3 rd social sector ⁴⁰ : <ul style="list-style-type: none"> - Karabaleko Elkartea (Social inclusion) - Cultural diversity - Zabalduz (Minors and youth) - Functional diversity - Equality - Health 	Networking Networking Networking Networking Full collaboration Full collaboration Full collaboration Full collaboration Full collaboration Full collaboration
(social) Media and journalists (n=3; 7,50%) / (n=3; 5,36%)	
EITB – Basque Media (both Euskera and Spanish) Onda Vasca (in Spanish) Berria (in Euskera)	Cooperation Cooperation Cooperation
Other (n=7; 17,5%) / (n=15, 26,79%)	
Private companies Insekt label Algaloop Cianoalgae Fundación Goyeneche (Vulnerable group – intellectual disability) Cristina Enea Foundation Anthropologist food and gastronomy Impact Hub Donostia Ama Terra S.L. Regenerative Agriculture Iberian Partnership (Agricultura Regenerativa Ibérica) Azti DSF (Donostia Sustainability Forum) Arantzazu Lab Uliako Lore-Baratzak (¿?) Pausoak	Networking Cooperation Cooperation Cooperation Cooperation Full collaboration Networking Networking Networking Networking Knowing Networking Networking Knowing Knowing Knowing Knowing Knowing

⁴⁰ Kutxa Fundazioa currently works with these actors.



* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Hub 4. Montpellier Metropolis and Occitanie region (France)

Table 5. Baseline actor connections within the Montpellier Hub network (February 2023)

Actors (N=35)	Type of connection
Policymakers and food national competent authorities (n=7;20%)	
Montpellier Metropole	Full collaboration
Agence de l'eau	Knowing
Chambre agriculture Occitanie	Networking
Occitanie region	Cooperation
Department Herault	Networking
DRAAF (Regional administrative agency for agriculture and forestry)	Networking
Montpellier City	Networking
Food providers (farmers and fisherman) (n=6; 17,2%)	
BioCivam Aude	Coordination
Civam Bio	Coordination
OceBio	Cooperation
Cooperation Agricole	Networking
MIN (Mercadis)	Cooperation
FR Civam	Cooperation
Food services and hospitality (caterers, chefs, restaurants)(n=2; 5,7%)	
Prairie Mimosa	Networking

Actors (N=35)	Type of connection
Food Index For Good	Knowing
Education system - e.g. schools, universities, Kitchen schools (n=5, 14,3%)	
Institut Agro Montpellier	Coordination
IAMM Montpellier	Cooperation
FAB'LIM	Full collaboration
UNESCO Chair in World Food Systems	Full collaboration
Institut Agro Montpellier Cantine	Knowing
Citizens and general public (n=10; 28,5%)	
Vrac & Cocina association	Cooperation
La Crèmerie	Knowing
La Cagette	Coordination
Le Comité Citoyen de Territoire à Vivre	Knowing
UFC QueChoisir	Knowing
La Cantina	Knowing
Les Petites Cantines (work in progress)	Knowing
Resto du coeurs	Knowing
Secours Catholique	Knowing
L'Esperluette	Coordination
(social) Media and journalists (n=514,3%)	
Le Paysan du Midi (Wider regional newspaper)	Cooperation
Midi libre	Cooperation
La Gazette de Montpellier	Cooperation
Le Monde	Networking
Service Presse INRAE	Coordination

* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities

though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop the capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Hub 5. Berlin and Federal State of Brandenburg (Germany)

Table 6. Baseline actor connections within the Berlin Hub -Baumhaus network (February 2023)

Actors (N=45)	Type of connection
Policymakers and food national competent authorities (n=3; 6.8%)	
City of Berlin / Berlin Food Strategy (senate administration for consumer protection)	full collaboration
Berlin-Mitte district level (Mitte - the district where our food hub is located)	coordination
BZFE Bundeszentrum für Ernährung (Center for Communication for sustainable and healthy food, part of the Federal Office for Agriculture and Food, nutritionists)	knowing
Food providers - farmers and fisherman (n=15, 34%)	
Auenhof Havelland (CSA, small regional farm)	full collaboration
Karoline Garten (CSA, small regional farm)	full collaboration
Biokräuterei (CSA, small regional farm)	coordination
Staudenmüller (CSA, small regional farm)	cooperation
PlantAge (CSA, small regional farms)	networking
Ackerwesen (CSA, formerly called Sterngartenodyssee)	cooperation
Basta (CSA, small regional farm)	knowing
FÖL (NGO/platform promoting and supporting organic agriculture in Berlin-Brandenburg)	knowing
Robin Hood Store (Social business local food market stores in Berlin)	networking

Actors (N=45)	Type of connection
SuperCoop (local supermarket coop, close to our food hub)	cooperation
FoodCampus (Innovation Hub, collaborating with major retailers)	knowing
Die Regionalbewegung (Regional movement, promoting and supporting regional food providers (including non-organic))	knowing
Solawi-Netzwerk (CSA-network)	networking
Bündnis Junge Landwirtschaft (association of young/new farmers in Brandenburg)	networking
Wochenmarkt Leopoldplatz (local market close to our food hub)	knowing
Food services and hospitality - caterers, chefs, restaurants (n=5; 11.4%)	
Die Gemeinschaft (restaurants and artisanal food producers association)	networking
Sotto (popular restaurant in the neighbourhood of our food hub)	networking
Kantine Zukunft (supporting Berlin's canteens towards sustainable, regional, organic food, team of chefs)	knowing
Slow Food Berlin (association Listing/collaborating with local restaurants)	knowing
Greens Unlimited GmbH (school caterer in Berlin)	networking
Education system - e.g. schools, universities, Kitchen schools (n=5, 11.4%)	
Restlos Glücklich (NGO providing educational programs on food waste, nutritionists)	coordination
FU/Sustain it (Free University of Berlin)	knowing
HU/Nachhaltigkeitsbüro (Humboldt University of Berlin)	networking
TU Berlin (Technical University of Berlin)	networking
Mensa Revolution (movement for sustainable food in all university canteens in germany)	knowing
Nutritionists, healthcare providers (n=3; 6.8%)	

Actors (N=45)	Type of connection
Verbraucherzentrale (consumer association, nutritionists)	cooperation
Delia Kassi (general practitioner, in the neighbourhood of our food hub)	networking
Charité (hospital, located in the district of our food hub, collaborating with the Berlin Food Strategy)	knowing
Citizens and general public (n=5; 11.4%)	
Diverse surrounding places and organisations (1 km radius around our food hub space)	knowing, networking
LMP-network Berlin-Mitte and all of Berlin (currently 27 initiatives/places, reaching different target groups within consumers, including most vulnerable, deprived groups)	full collaboration
LMP-network Brandenburg (currently 3 initiatives/places)	cooperation
Yesil Cember (NGO reaching Turkish and Arabic community in Berlin for sustainability)	cooperation
Jugendernährungsrat (Youth Food Policy Council)	cooperation
(social) Media and journalists (n=4; 9.1%)	
Weddingweiser (local blog)	networking
Weddinger Zeitung (local free newspaper)	networking
taz (national newspaper, journalist Annette Jensen)	cooperation
Der Tagesspiegel Mitte-Newsletter (Berlin/national newspaper, district level newsletter)	knowing
Other (n=4; 9.1%)	
Berliner Tafel (Berlin food bank)	networking
foodsharing e.V. (volunteer food saver)	cooperation
SPRK (AI-driven technology platform to reduce food waste in the supply chain)	knowing
Berliner Ernährungsrat (Berlin Food Policy Council)	full collaboration

* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Hub 6. Goteborg and Vastra Gotaland region (Sweden)

Table 7. Baseline actor connections within the Gothenburg and Västra Götaland network (February 2023)

Actors (N=54)	Type of connection
Policymakers and food national competent authorities (n=15; 28%)	
Västra Götaland County (Västra Götalandsregionen)	Fully collaborate (in other projects)
County Administrative Board (Länsstyrelsen Västra Götaland)	Fully collaborate (in other projects)
Program for Sustainable Transition - Västra Götaland County	Knowing
The Swedish Food Agency (Livsmedelsverket)	Cooperate
School Food Academy (Skolmatsakademin) - coordinated by RISE	Fully collaborate
Meal Sweden (Måltid Sverige) - coordinated by RISE	Fully collaborate
West Sweden Tourist Board ("Taste of West Sweden"-project)	Knowing
Locally produced in West (Lokalproducerat i Väst)	Cooperate
Gothenburg Municipality - Climate-office	Cooperate
Gothenburg Municipality - Democracy and citizens-office	Cooperate
Gothenburg Municipality - Primary School Administration	Cooperate
The Swedish Food Federation (Livsmedelsföretagen)	Fully collaborate

Actors (N=54)	Type of connection
Lantmännen - National Agriculture Cooperative	Coordinate
Swedish Food Retailers Federation (Svensk Dagligvaruhandel)	Knowing
Public Health Agency of Sweden (Folkhälsomyndigheten)	Networking
Food providers (food producers, grocery stores (retail and distributors), city grower's/farming initiatives (n=13, 24%)	
Paulig Group	Coordinate
Green City Farming Högsbo	Knowing
Modellodlingen i Angered (Urban farming initiative)	Knowing
Oatly	Fully collaborate
Ahlströms Factory (Producers of vegetarian products from legumes)	Knowing
Skafferi Väst - Retailer of regional food products	Knowing
Cityysteriet (Artisan cheesemaker)	Knowing
Kobb - Seaweed product producer	Knowing
Picadelí/Green Food - producer of ready meals	Fully collaborate
Grow Gothenburg - urban growers network	Knowing
Urban Food Space - Start-up arena for small-scale food producers	Knowing
Almö Livs (Local grocer)	Networking
ICA Kvantum Ale torg (Local food supermarket)	Networking

Actors (N=54)	Type of connection
Food services and hospitality - caterers, chefs, restaurants (n=8, 15%)	
Compass Group	Cooperate
Coor	Cooperate
Gothenburg Opera Restaurant (GöteborgsOperan)	Knowing
Chalmers Conference and Restaurants	Knowing
Gunnebo Castle & Gardens (Gunnebo Slott och Trädgårdar)	Fully collaborate
Musselbaren i Ljungskile/Musselbriken (Restaurant/producer specialised in mussels)	Cooperate
Public Meal Administration in Lidköping Municipality	Fully collaborate
Public Meal Administration in Vänersborg Municipality	Fully collaborate
Education system - e.g. schools, universities, kitchen schools (n=6, 11%)	
Uddetorp & Sötåsen NM-gymnasium (Agricultural High Schools)	Knowing
Lisebergs Akademi - Liseberg Amusement Park own Culinary School (adult education)	Fully collaborate
YRGO - Head Chef/Restaurateur diploma programme for adult students	Cooperate
Ester Mosessons Gymnasium - High School specialised in Culinary & Hospitality education	Cooperate
VÄRT Sweden (Sustainable Food Lab)	Knowing
Gothenburg University - Department of Food and Nutrition and Sport Science	Cooperate
Nutritionists, healthcare providers (n=5; 9%)	

Actors (N=54)	Type of connection
"Center for lifestyle intervention", Sahlgrenska University Hospital	Fully collaborate
Health promoting hospital (Hälsofrämjande sjukhus)	Networking
The Swedish Association of Clinical Dietitians (Dietisternas Riksförbund)	Fully collaborate
Matkassen - Angered Närsjukhus	Networking
Regionalt processteam levnadsvanor - Sahlgrenska University Hospital och Östra Hospital	Networking
Citizens and general public (n=3; 6%)	
Gothenburg Rescue Mission (Göteborgs Stadsmission) - Food Bank for people in need	Collaborate
Solidariskt Kylskåp (Solidarity Refrigerator) - Free "rescued food" citizens initiative	Knowing
The Rescue Mission (Räddningsmissionen) - Social supermarket for people in need	Knowing
(social) Media and journalists (n=1; 2%)	
Magasin Måltid	Knowing
Other (n=4; 7%)	
Innovatum Science Park	Networking
GotEvent	Networking
Gothenburg & Co	Networking
Bostadsbolaget (Regional public housing agency) - runs several citizens projects	Knowing

* **know** the actor: no personal interaction; ****networking** with the actor: exchange information, talk with each other for mutual benefit; *****cooperate** with the actor: support each other's activities though e.g., attend meetings, exchange resources, without a formal agreement; ******coordinate** with the actor: engage together in

projects and initiatives, e.g. event planning committees, implement activities together and modify own activities to benefit the whole because you care about same issues; *******fully collaborate** with the actor: work together to develop capacity to achieve a shared vision, e.g. through formalised agreement, common data collection, raising funding, pool resources, provide training.

Annex 6. Hub Workshop 1: summary of inputs

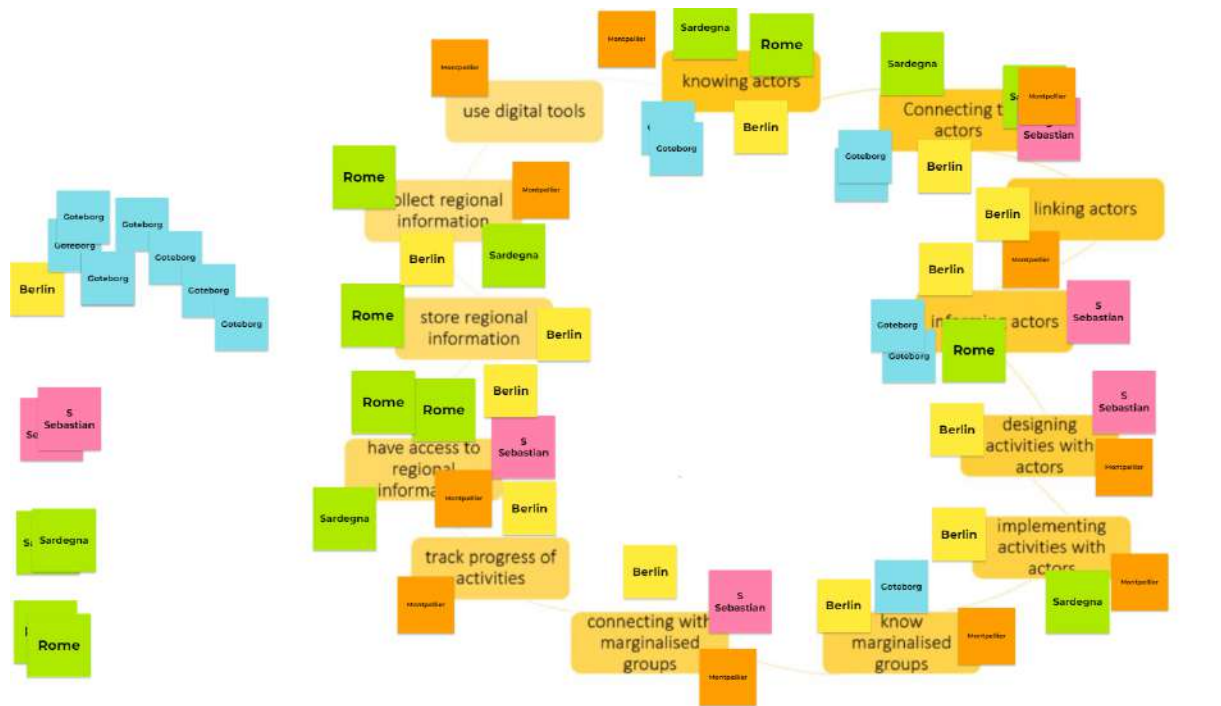
[presentation Hub Workshop 1](#)

Find all input on the [Jamboard Hub Workshop 1](#)

Activity 1. How Hub is your Hub (Jam 2)

Hubs indicated their current activities within the overview of activities that are considered relevant to a SWITCH Food Hub/Living Lab.

- all Hubs have connections with actors, these connections range from knowing (almost all), connecting (all), informing (all), linking (2), designing activities with actors (3) to implementing activities with actors (3).
- 3 Hubs know the marginalised groups within their region and 3 connect with these groups
- all Hubs have access to regional information, with 4 Hubs collect and 2 Hubs storing the information
- 1 Hub uses digital tools
- 1 Hub tracks progress of activities



Activity 2. Network connectivity (Jam 3)

Each Hub categorised a selection of their activities within the format of I know, we network, we cooperate, we coordinate and we fully collaborate. After Workshop 1, all Hubs have submitted their file with actor-connectivity type to Noraly. She will apply network analysis and compile an overview for each Hub.

	I know	we network	we cooperate	we coordinate	we fully collaborate
	no personal interaction	talk/exchange information for mutual benefit	support each others activities in meetings, exchange resources	plan, implement activities together, modify own activities to benefit whole	work together to develop capacity to achieve shared vision
San Sebastian		Citizens	Restaurants	NGO's	Chefs Social agents
Goteborg	Center for Strategic Intervention Verdani matbank Troih. Dokumentation Vinnu Science Park		Mathilda Food tech		
Berlin	Terra		Consumer Association	Annette Jenzen Laz	Sharing leftover food Wo kommt dein Essen her?
Sardegna	Elders	small scale fishing operators			School Canteen managers ASL food nutrition experts tes. dello Ispes all'ambiente alla regione ard
Rome		Erroteca provinciale CNA Roma rete produttori frutta	ARSIAL ANCI Lazio		
Montpellier	Pimup	WardCoopline #SOC	MIN	BioCivium Aude	ici c'est local

Activity 3. Hub scenario's 1 (Jam 4): What could go wrong in a (near) perfect situation?

- Concerns regarding SWITCH external partner
Engagement challenges:
 - Onboarding - it is hard to engage actors and as a result, their engagement is limited
 - Ongoing - actors become less motivated over time; don't participate regularly or leave the project
 - Perception of benefits: Actors don't see the benefit in participating resulting in actors leaving the project

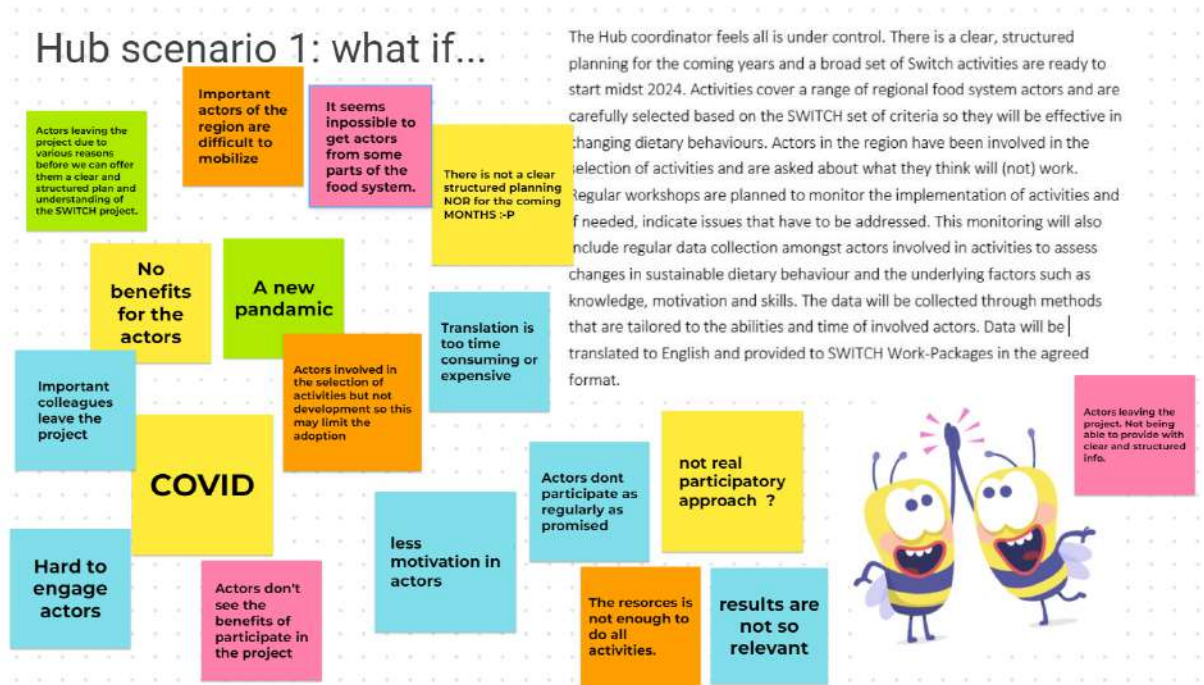
Lack of representativeness: Some actors are involved but it is hard to get a representation of the whole food system and important actors are missing

Participatory approach pitfalls: approach is not truly participatory, actors not involved in development of activities
- Concerns regarding SWITCH internal partners/project
Lack of time or resources:
 - Translation can be time consuming
 - Lack of financial resources to do all the activities

Outcomes: Results not useful

Process:

 - No clear and structured info/planning
 - Colleagues leaving the project
- Circumstantial concerns
Pandemic



Activity 3. Hub scenario 2 (Jam 5): How can the situation be improved when many things are going wrong?

- SWITCH internal partners/project
 - Implementation of different types of meeting:*
 - *Regular meetings with WP5:* These may have different aims including (a) co-creating, (b) sharing updates & checking-in, (c) thematic meetings on different themes to spark inspiration
 - *Horizontal meetings with other hubs:* The purpose is to share advice and experiences and get inspired
 - One on one talks and coaching between hubs and management
 - Project management tweaks:*
 - Better communication between management and hubs
 - Fewer heavy surveys to collect data
 - Clear timeline/planning including a known and accessible location where it is posted
 - Clarity on what is expected: co-creation paired with guidance on process
- External partners
 - Importance of communication and demonstrating benefits:* Ways to do this could be for example: break the silos by inviting them to see what is happening in other hubs)
 - Think of alternative ways to implement activities
 - Increase exposure:* create an event about food with media
 - Provide incentives:* make incentives for partners in exchange for participating in SWITCH GSheets

Hub scenario 2: what if....



Activity 4. sharing and Switchification of activities (Jam 6-8)

Group 1: Rome & Gothenburg

Group 2: Montpellier and Berlin

Group 3: Cagliari and Sardinia

Food Hubs Leaders were divided into 3 groups (2 Hubs per each group) in order to have a collaborative discussion about the activities to implement during the SWITCH Project. The Hubs Leaders were involved in a co-creation exercise in which they had to discuss and assign SWITCH criteria to the past/ongoing or to-be-implemented activities.

Summary of output workshop 1.

- general questions were asked about the engagement of actors/co-creation process. To answer these, Sonia will facilitate an exercise to clarify and exchange what co-creation means and what Hubs need to organise and execute it.
- the planning of tasks remains unclear, hence we have uploaded a general timeline on the SWITCH shared: WP 4 and 5 planning (also shared by Leah in her email from last Friday). Please share the planning of your Hub with Laura and Leah so we can include it in the timeline (actor co-creation activities, baseline assessments, start activities). You can do so by email or schedule an appointment with us. You can also note your questions or thoughts on the hub expression board
- communication: the GJamboard please email Laura and Leah
- questions related to monitoring of activities are not yet addressed in the upcoming workshop because the set of indicators is still to be defined. This set will contain the 3 elements of the SWITCH monitoring and evaluation: the food flow (WP2), the social flow (WP4) and the sustainability flow (WP3). After summer, a co-creation

process will start to arrive at a set of scientifically valid and practically relevant and applicable indicators and assessment tools. Hub leaders participation in this process is very important. Please send an email to Laura and Leah when you wish to be involved in this process or have questions about the monitoring and evaluation. See also WP 4 and 5 planning for WP4 tasks (development of assessment methods, baseline assessment et.).

- questions related to the use of digital technology will be addressed after summer, when EPFL has their next steps ready. If you have questions, please email Margherita Motta. Emily Groves will be on maternity leave.

Annex 7. Hub Workshop 2: summary of inputs

Workshop 12/07 summary

Slide 1 – Answers to hub questions from workshop 1 and where to find resources

Follow up of our questions during the first workshop

1. Engagement/co-creation process

- What does a participatory approach entail in practice? (who, which groups, what, when, how often...)
- What if I already have my activities planned out, how does co-creation fit in?
- How to get and keep actors engaged?
- How can SWITCH benefit them and how can these benefits be translated to them (incentives)?
- How to get all the actors from the proposal (All actors of the food system represented in discussions)?

→ this workshop: clarify and exchange co-creation process & Hub resources needed

2. Planning

- How can we have a clear, accessible and structured planning moving forward?
- How can we make sure we have enough time for all the translations?

→ GJamboard 'SWITCH Hub Co-Creation process': general WP5 planning + overview SWITCH criteria + Jam for each Hub to create and share their regional planning.

3. WP5 Communication

- How can there be better communication between management and hubs moving forward?
- How can we implement regular meetings with WPs across hubs to share updates and check-in?
- How often can we implement regular meetings with WPs to share updates, check-in & inspiration?

→ check and contribute to Jamboard 'SWITCH Hub Co-Creation process'
→ email Laura/Leah for meeting

4. Monitoring of Hub activities

- How to get meaningful results?
- Which information we should report from activities to the project? Which indicators, etc...?

→ planning WP4 (SWITCH Drive)
→ september start co-creation of SWITCH M&E framework
→ email Laura when you have questions

5. Digital tools

- How will the digital innovations be used?

→ EPFL will communicate next steps after summer holiday
→ email questions to Margherita Motta

Slide 2 - Presentation of the empathy model

Description: WHY DO WE START WITH "EOE MODEL"?

EOE Empathy Model: Ego (yourself, you as a person, a Hub)- Other (with others Hubs) - Eco (how to co-create it together)

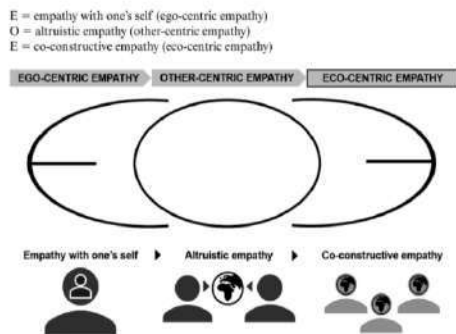


Figure 22.1 The EOE pedagogical model

MASSARI, S., ALLIEVI, F. AND RECANATI, F. (2021). Fostering empathy towards effective sustainability teaching: from the Food Sustainability Index educational toolkit to a new pedagogical model. In Leal Filho, W., Salvia, A.L., Frankenberger, F. (Eds) Handbook on Teaching and Learning for Sustainable Development. Edward Elgar Publishing, Cheltenham

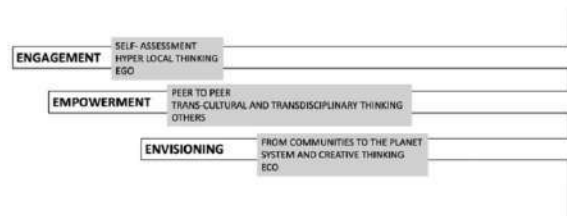
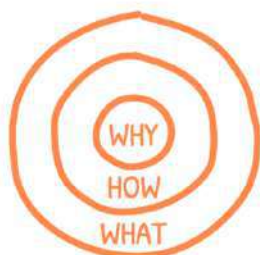


Fig. 12.5 Process of engagement, empowerment, and envisioning linked with the EOE model. (Credit: Sonia Massari.)

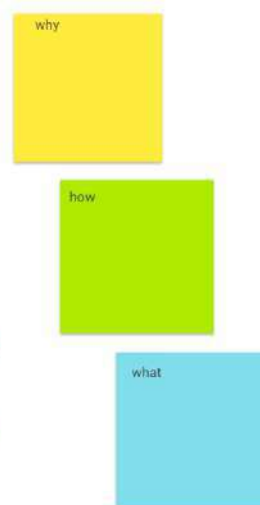
ALLIEVI, F., MASSARI, S., RECANATI, F., DENTONI D. (2021). Empathy, food systems and design thinking for fostering youth agency in sustainability: A new pedagogical model. In: (a cura di) Massari, S. Trans-disciplinary Case Studies on Design for Food and Sustainability, pp 197-216 Elsevier

First exercise:

We ego-empathize by using the GOLDEN CIRCLE. 1st Exercize.



This model is designed by Simon Sinek and it consists of 3 parts: WHY, HOW and WHAT.
 The WHAT part of the model describes - as the name states - WHAT is being done in the project/activity.
 HOW describes HOW the WHAT part of the project/activity is conducted.
 However, the WHY part of the model is the purpose of the project/activity.
 The golden circle only works if you get the order right: start with why, then how, and finish with what. This framework is one way to help you prioritize the goals and objectives of your co-creation project/activity and keep your team aligned towards the same mission.



	Why	How	What
Rome	Engage actors on healthy & sustainable diets	(1) Assessing their actual perception of what is “healthy and sustainable” and the barriers existing for the shift in their diet with focus groups or workshops or interactive games (2) Checking from a nutritional point of view the “shopping bag” of the market consumer	(1) Create and organise opportunities to bring together the different actors (events) (2) Publicise the calendar of days when the nutritionist will be available in the markets
Cagliari	(1) Improve awareness of sustainable diets (2) Understand consumer attitude to consume sustainable recipes	(1) Involve chef and restaurants to develop and test the sustainable recipes (2) Experiment and adapt new recipes	Organise sustainable dinner with new recipes
Montpellier	Access by vulnerable/marginalised groups to healthy and sustainable food items can be difficult from a financial point of view	Organise an informal group to share encountered challenges and find retail places that correspond to expressed wants and needs	The “common food fund”, a collection group gathering people with common interest (access to healthy and sustainable food) with a “food voucher” for specific retail places
San Sebastian	Food will be organic and local hence healthier and with reduced environmental impact, providing to citizens a sense of belonging to a community	Successful activity which started a long time ago, involving many kind of people and is interesting in the context of SWITCH	Learn/identify the factors that have made it a success and continue to support the activity

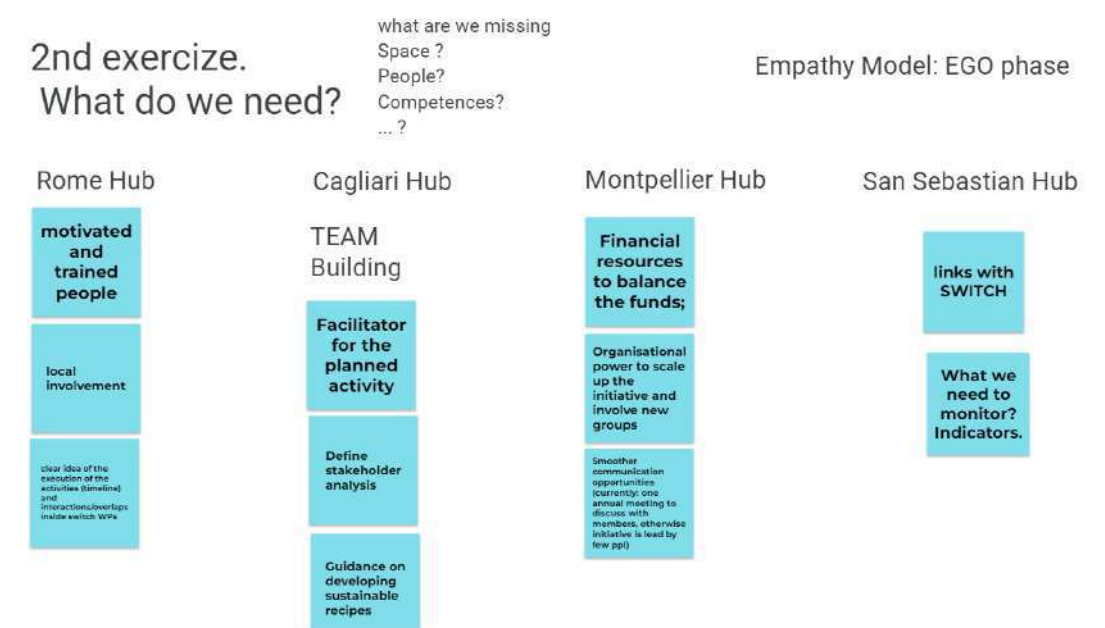
Second exercise

The second exercise was divided into three main questions for the hubs to self-reflect on:

- What do we need (EGO phase)?
- How do we help each other to meet the needs (OTHERS phase)?
- How can we solve issues together? How to co-create something new, effective, successful (ECO phase)?

1. What do we need? (EGO phase)

- *Human local capital:* Motivated and trained people (R); Facilitator for the planned activity (C)
- *Processes for more collaboration & involvement:* Organisational power to scale up the initiative and involve new groups (M); Smoother communication opportunities (currently, one annual meeting to discuss with members, otherwise initiative is led by few people) (M); Local involvement (R)
- *Internal clarity within SWITCH:* Clear idea of the execution of the activities (timeline) and interactions/overlap inside of SWITCH (R)/ Define SH analysis (C); What we need to monitor? (indicators) (S)
- *Professional guidance:* Guidance on developing sustainable recipes (C)
- *Monetary means:* Financial resources to balance the funds (M)
- *Ability to link activities with SWITCH aims:* Links with SWITCH (S)



The second and third exercises were not completed due to time limitations but hubs are invited to reflect on these questions:

2. How do we help each other to meet the needs (OTHERS phase)?

3. How can we solve issues together? How to co-create something new, effective, successful (ECO phase)?

Self-reflection questions for Hubs

In which way have you developed or are intending to develop your SWITCH activities? (with whom, how often, in which way, tools for discussions)

Have you applied any co-creation processes?

Do you assess your co-creation processes? If so, what do you consider an effective/successful process? Which indicators do you use for this?

Annex 8. Hub Workshop 3: summary of inputs

Jamboard Workshop Hub 3

Q1. What is a SWITCH food Hub?

Recent literature on living labs: not a definition but a set of core features

Core features (Radulescu et al. 2023)

Feature type	Feature
INFRASTRUCTURE	a <i>real-life setting</i> (the laboratory) in which experimentation is encouraged, and where room for failure is provided
PROCESS QUALITY	involvement of <i>multiple stakeholders</i> (e.g. public institutions, private stakeholders, academics and research institutions, NGOs, individuals and groups of citizens)
PROCESS QUALITY	<i>co-creation</i> as any act of "collective creativity that is experienced jointly by two or more people [...] where the intent is to create something that is not known in advance" (Sanders & Simons, 2009:27)
OUTPUT	<i>innovation</i>
OUTPUT/PROCESS QUALITY	<i>learning</i> (what kind of learning? How can we define learning? Is there also un-learning happening?)

Real life and virtual?
SWITCH partners + actor list, actors in KPI's
SWITCH actor engagement process (Q4)
Socio-Technological innovation - which change do we aim for?
Salutary (meaningful) activities & engagement process (Q5)

The jamboard contains several sticky notes and a central table. The notes discuss the definition of a hub, the role of coordinators, and the importance of co-creation and learning. The table summarizes the core features of a SWITCH food hub, categorized by feature type and feature description. The notes also mention 'Real life and virtual?', 'SWITCH partners + actor list, actors in KPI's', 'SWITCH actor engagement process (Q4)', 'Socio-Technological innovation - which change do we aim for?', and 'Salutary (meaningful) activities & engagement process (Q5)'.

- Not a definition but a set of core features:
- Infrastructure: a real-life setting (the laboratory) in which experimentation is encouraged and where room for failure is provided (real life and virtual?)
 - Process Quality: Involvement of multiple stakeholders (e.g. public institutions, private stakeholders, academic and research institution..) and coo-creation
 - Out-Put: innovation and new activities. Learning as output for the hubs, the process quality and preparation of activity is equally important. (what kind of learning? How can we define learning?)

Living lab e Food Hub are two different things.

Living lab is the fiscal organisation conception machine that makes things happen.

HUB = space where we do things related to food (each one is different and has its own specificities); LIVING LAB = an approach, the way we all actors (hub leaders, citizens, scientists, farmers, etc) work together (co-design, co-develop, co-produce)

NHY: meaning - SWITCH Hubs believe that through enabling activities rooted in regional resources and new, interdisciplinary scientific insights will initiate.

Each region where there are hubs will work with the resources and space they have available. So the activities will adapt to these needs.

Description used in Goteborg:

What is the Goteborg Hub: "The Food Hub is intended as a laboratory filled with opportunities where we learn, dare to think new and try things we haven't tried before. An opportunity for your organisation to take action to test new sustainable food ingredients from land and sea, gain knowledge and support in the development of more healthy and sustainable products and menus, train your meal staff for increased commitment and knowledge, inspire your customers to more sustainable choices or what else is on your Switch list. We create the hub together so that you get the most value out of your efforts."

Q2. What are characteristics of Hub activities?

Q2. What are characteristics of Hub activities?

The development of Hub activities is guided by the criteria set within SWITCH. These criteria will ensure SWITCH will arrive at the projected outcomes (KPI's)

- Hubs support activities through a mixture of change strategies, namely the SWITCH pillars of providing knowledge and access and facilitate connection between actors
- Hubs support activities that target a range of food system actors, with specific attention to people that are considered marginalised (e.g. citizens with low SES, small local producers)
- Hubs support activities in centralising visibility, labelling, production, provisioning and consumption of sustainable, regional food that is part of the SWITCH food index, with particular attention to fish
- Hubs use a salutogenic approach towards the the co-design of activities, which means that this process is positive, solution oriented and supports actors in developing meaning, comprehension and action regarding sustainable, healthful food practices.
- (to be completed)

What is meant with 'comparability of activities'? Will we use time (season?) and space (North-South, mixture?)

Merie: also depends on the resources available, practical and realistic, dynamic process.

Laura: learn also along the way

Inma: already did exercise, list activities from past, useful

Karen: related to Q4

How to identify minimum frequency/duration? Different for types of activities and actors. Cinzia: work within time frame, common sense. Laura: literature insight can guide?

should activities focus on a specific area or spread over the region? -> lab in central part, actors from all regions

How long should the activities be? In a practical way, common sense, some activities will be very quick, others will be long during all the project.

Some activities will be specific for some Hubs for the condition of the structure but some other activities will be similar and shared with more or other hubs.

Q3. What entails the SWITCH actor engagement process?

Q3. What entails the SWITCH actor engagement process?

WU proposes:

Leah has created a presentation that can be turned into a word document, e-book....

Report D5.1 as a collaborative effort. WU creates space for each Hub to report on engagement activities and draw conclusions (Ego). In Hub meeting (end October), Hubs share findings/conclusions on further steps in actor engagement (Other), overall conclusions will be drawn (Eco).

WU questions

Which format to choose for the engagement process.

Multiple tools and methods available. Do you prefer a multitude of choices or a selection?

Q4. How are scientific findings from other WP's integrated in Hubs and Hub activities?

Q4. How are scientific findings from other WP's integrated in Hubs and Hub activities?

WU

based on theory, literature, previous projects, WP4 develops protocol on e.g. :

- salutogenic activities: e.g. positive framing of communication messages, providing learning to develop meaning, understand and action

- engagement of people who are considered marginalised (e.g. people who are not literate)

Malin, WP3.1 meeting with each Hub to adapt to regional diet. question is how will Hubs use the diet?

Maria NO (Goteborg): SWITCH diet is tool to test in activities. e.g. introduce guidelines on SWITCH diet to restaurants for compiling menu, this is an activity to test in for instance a small event. will depend on type of actor how to use the SWITCH diet. we will bring actors together and discuss this

Maria BL. will use SWITCH diet to validate. is innovative, first test in Europe, same framework different plates

Inma (SSEbas), will also depend on the activity and actor group

Karen: do we receive scientific (quantitative) framework one time or along the way? Simona -> yes, focus will be on the social part, qualitative to learn and adapt

How is the co-creation with WP2-3-6 going to be shaped. Simona: WP2 establishes general trend about the food in regions (consumption, production), with Hubs since regional data often lacks.

WP6 digital tools to support Hub activities. virtual web pages to share information. also existing tools such as counter system, to be used when relevant

'container/frame' for hub activities is now developed

+ what we collaboratively decide what is needed for Hub activities

Should all of the proposed sustainability index proposed in WP3 be followed up in all activities or is it possible to select some of them?

Britta: many indicators to identify sustainability, which ones have to be used/ Simona: to be defined, depending on practical applicability; Laura: alignment needed, see also next question

HUB 1 - For going on with activities and engage actors, for my Hub would be very useful at this stage to know from WPS the SWITCH approved definition of sustainable diet

and from WP2 the list of foods and beverage SWITCH decided to take data from DS1 // WP2 will create overview of food fluxes (production/import/export) +

food consumption (food intakes per specific groups), and share of food labels (including the perception of food hubs actors of chosen labels)

Simona; workshop begin October to decide

WP3 to adapt to the region. How will Hubs use the diet?


The foods in the Hubs will be different because the culinary tradition is different; however, the same framework will be followed with the goal of a more sustainable diet.

The SWITCH diet is a tool to test activities. e.g. introduce guidelines on SWITCH diet to restaurants for compiling menu, this is an activity to test in for instance a small event. It will depend on the type of actor how to use the SWITCH diet. We will bring actors together and discuss this.

Q6. How will hub activities be assessed? which (digital) tools?

Step 1: identifying the Hub context

- Hub's knowledge
- Hub's previous experiences and resources
- Hub's social network
- Hub region's culture
- Hub region's foodscape



WUR: Interviews with Hub leaders and members

Topic	Question	Question is asked to...		
		Hub leader	Hub member	
Part 1: the Hub	Why	1. What is to you the purpose of changing towards more sustainable food in your region? (Me)	x	x
	Why	2. What do you find meaningful, important, beautiful/inspiring , valuable about this transition towards more sustainable food in *Hub's region*?		
	Why	3. What does "sustainable and healthy food" mean to you? What 5 keywords come to mind? (C)	x	
	Why	4. Can you describe how the Hub is developed?	x	
Part 2: Hub's Region	Landscape	13. What characterises the landscape of the *Hub's region*?	x	x
	Food system	14. Could you shortly describe what characterises the *Hub's region*'s food system?	x	x
	Culture and people	15. Could you describes the culture and the people of *Hub's region*?	x	x

Step 3: Outcomes (quantitative)

digital tool?

Hub's potential to establish more healthy and sustainable eating.

Measured by:

- Coping capacity (1 min)
- food literacy (10 min)
- network mapping (10 min)
- food access (5 min)

Maria (GB) there is not one culture, complex to answer what do we mean with food culture? Simona: proposal: representative for the majority of food eaten within Hub regions

Andrea: food culture was based on affordability, now the better culture, the better food, what you concern to be better to eat for you, not everyone has this, also culture of food production, traditional food can also be less healthy (high fat, sugar), also other way around e.g. EU labels olive oil as red because it is high fat.

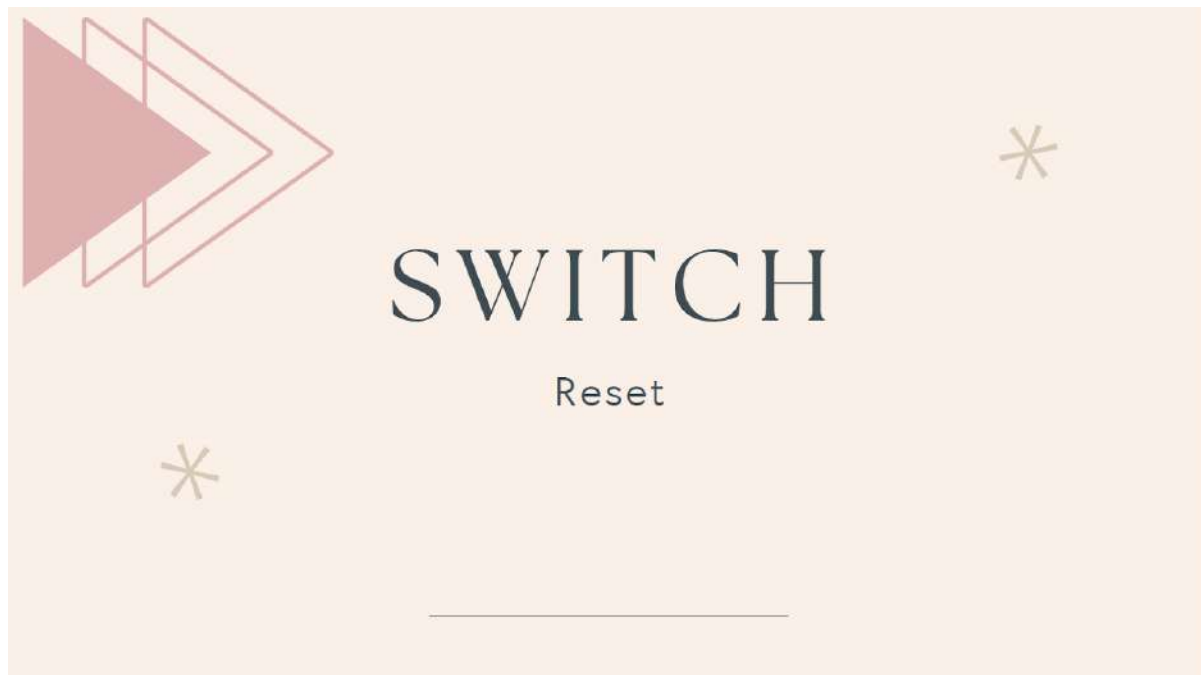
which kind of context will be look at? localised

There is not one culture. Complex to answer what we mean with food culture?

Proposal: representative for the majority of food eaten within Hub regions.

Traditional food can also be less healthy (high fat, sugar). Also other way around eg Eu labels olive oil as red because it is high fat.

Annex 9. Co-design presentation



Planning WP5



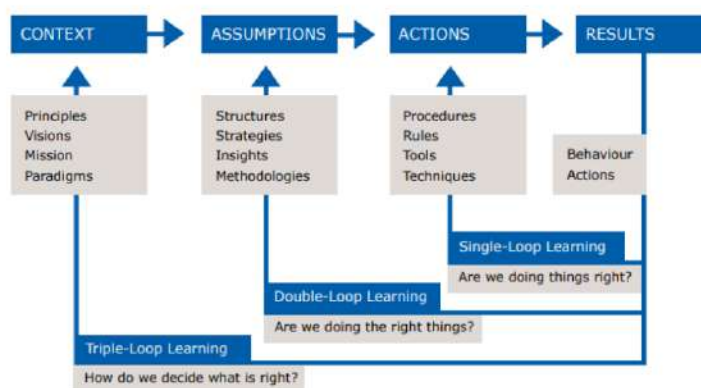
Planning - where are we now?



Triple loop model learning to reflect on our current processes in SWITCH

Three levels of learning about successful results and how these can be achieved within a project:

- Single-loop learning: reflecting on the rules and procedures so as to improve actions with small adjustments
- Double loop learning: reflecting on the underlying structures, strategies or methodologies in use
- Triple-loop learning: reflecting on the core of the project/program including principles, visions, mission, paradigms



Gordijn et al. (2018)

I/ Living labs 2.0

Carving the path for the SWITCH lab

2000 x 1125 px

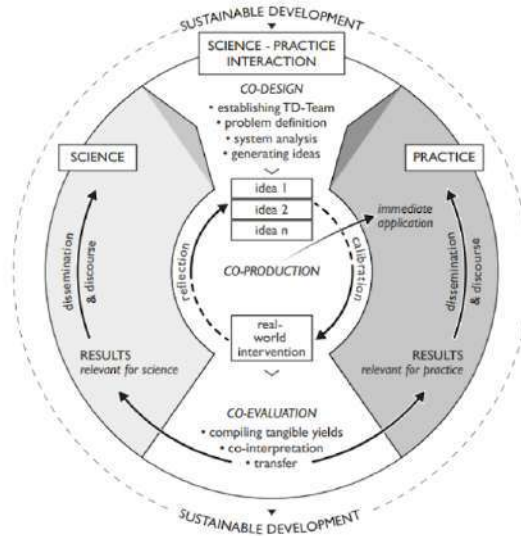
What is a living lab?

No clear definition but a **set of core features** (Radulescu et al. 2023; Schapke et al. 2018)

Feature type	Feature
INFRASTRUCTURE	<i>a real-life setting</i> (the laboratory) in which experimentation is encouraged, and where room for failure is provided
PROCESS QUALITY	involvement of <i>multiple stakeholders</i> (e.g. public institutions, private stakeholders, academics and research institutions, NGOs, individuals and groups of citizens)
PROCESS QUALITY	<i>co-creation</i> as any act of "collective creativity that is experienced jointly by two or more people [...] where the intent is to create something that is not known in advance" (Sanders & Simons, 2009:27)
OUTPUT	<i>innovation</i>
OUTPUT/PROCESS QUALITY	<i>learning</i> (what kind of learning? How can we define learning? Is there also un-learning happening?)

Roggia, ZALF

Real-world lab process

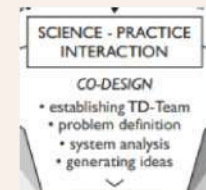


Wanner et al. (2018)

Co-design

Before everything...

Transdisciplinary collaboration: "Care should be taken that researchers and practitioners meet on an equal footing, establishing a culture of co-leadership"

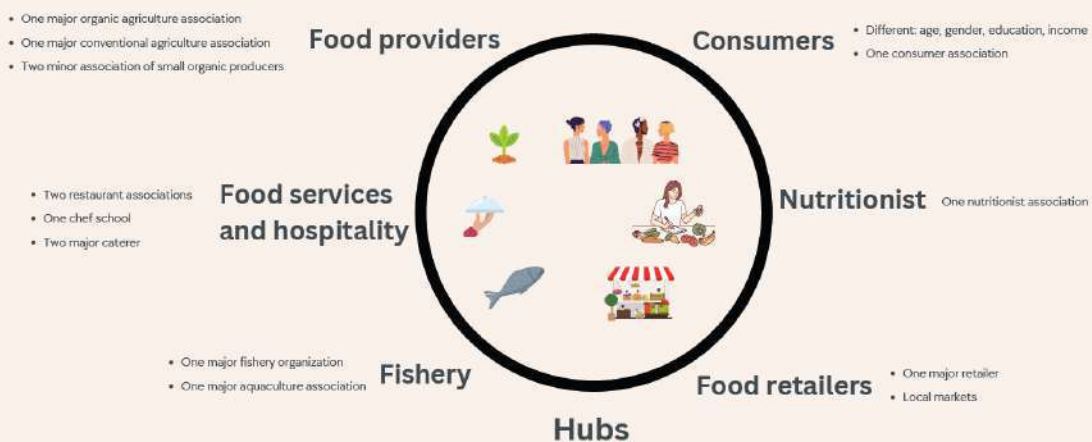


Wanner et al. (2018)

II/ Actor engagement

Beyond actor engagement
blurriness

According to the proposal...



Pre-actor engagement checklist

Reflection questions to think about before involving actors...

- Can we pitch our project in 3 minutes?
- Can we formulate what it will bring to the stakeholder?
- Can we formulate what we think the added value of this stakeholder is to the project?
- Who else is participating in the project?
- What is our intention with this stakeholder? Is our goal to work together on the project for a short time or is our intention to build a longer relationship?
- Do we have a contact person through whom we can approach the stakeholder?

Franse, 2021

III/ Co-creation

With interested actors

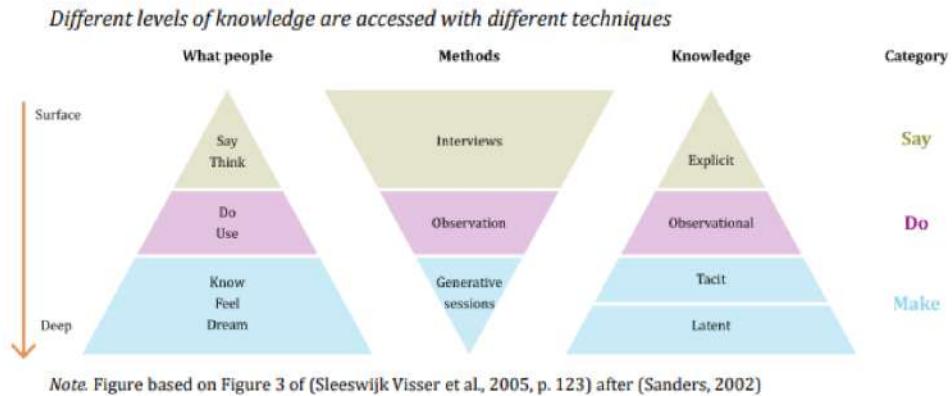
"In a Living Lab project, identifying and engaging societal actors and choosing a topic are conducted side by side, because each societal actor has a say in how the topic will be shaped - they are full partners"

Why bother with co-creation? Higher chances for success

- Creating **shared value**
- Creating **active agents** rather than beneficiaries
- Inviting **multiple perspectives**: everyone is an expert in their own right
- Getting an **inclusive** representation to reflect on the issue at stake - get perspectives from voices you don't usually invite
- Co-creation thrives with **shared ownership** in both results and process
- Co-creation is **open-ended** - keep people involved after the sessions

Van Westen & Van Dijk, 2015

How to encourage creation?



Woertink (2021)

Co-creation process example (adapted from the Butterfly method)



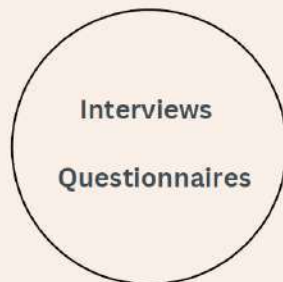
Part 1

Identify facilitators, barriers, opportunities and needs of actors

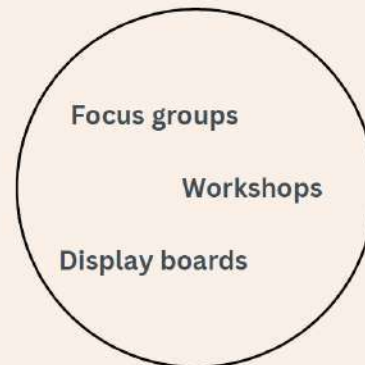
What?



Individual methods*



Collective methods



*WUR can supply interview guide

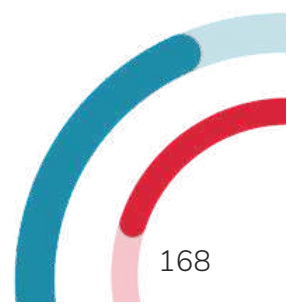
Part 2

Share ideas and develop activities with actors

The role of Living Labs



Living Labs utilize co-creative techniques to act as bridges among various stakeholders by facilitating interactions and propelling innovation. They employ a diverse range of methods, choosing the one that aligns best with the objective of the collaboration.



Ideation workshop - generate idea



Gather mixed group of people, made up by users, food system actors, and hub leaders. Key activities are collective brainstorming to create and visualize new ideas and identify needs

Exploration workshop - from idea to prototype



Participants collaborate to create ways to address the needs/desires and turn ideas into action. The team is invited to negotiate and agree on the best solution that satisfy all actors.

Outputs: prototypes, representations, models of the main opportunities

Experimentation - try out of prototypes in a real world setting



Choose the real-life setting; build the protocol; experiment. Observe and listen to reactions, feedback, manage expectations and disappointments, evaluate

Outputs: protocols, documentation of experiment, data for evaluation

Co-creation process example - ABCD

1. Invite people with a heart for your community to a gathering (idea party, think fest. inspiration meetup)
2. Explore resources
3. Discover and map assets
4. Discover what engages people - ask the group what they care about and want to work on
5. Link resources mapped with what needs to be worked on
6. Plan the road ahead together

https://www.abundantcommunity.com/files/Asset-Based_Community_Development_ABCD_-_A_Booklet_for_Residents.pdf

[https://resources.depaul.edu/abcd-institute/publications/publications-by-topic/Documents/A%20Basic%20Guide%20to%20ABCD%20Community%20Organizing\(3\).pdf](https://resources.depaul.edu/abcd-institute/publications/publications-by-topic/Documents/A%20Basic%20Guide%20to%20ABCD%20Community%20Organizing(3).pdf)

Other workshop types to generate ideas



For more ideas, see:
<https://unalab.enoll.org/>;
<http://actioncatalogue.eu/search>; <https://commonslibrary.org/gamestorming-a-set-of-innovative-co-creation-tools/>

Feel inspired?

Join the living lab task force where we reflect on and define what we want to be as SWITCH food labs and how we want to engage our actors



Annex 10. Protocol Hub inventories

WP4. Inventory of context of the SWITCH project: getting to know the Hubs and the local regions

1. What do we need to know?

A first key task of WP4 is a *qualitative* context analysis of the Hubs: who are they, what are they doing, how is their current relationship/involvement with SWITCH, what do they need from SWITCH, and how does their network look like. In addition, we ask the Hubs and local food actors to talk about key characteristics of the Hub region to identify barriers and opportunities for healthy and sustainable eating (this information will be used for the WP5.1 report on barriers and opportunities). This comprehensive context analysis is an essential starting point for realist evaluation (the monitoring and evaluation framework of WP4) as the interactions between context and intervention activities determine the effectiveness of the activities (outcomes). Furthermore, quantitatively and qualitatively investigating the social network of the Hubs relates directly to one of the project KPIs.

2. How are we going to do this?

Different informative resources will be used for the *qualitative* context analysis. This context analysis consists of two parts:

- Part 1: getting to know the Hubs. This regards all distinguishing the characteristics that will be investigated regarding the Hub context (Table A).
- Part 2: getting to know the local region. This regards all distinguishing characteristics in the local region. This also includes the perspectives of the local food actors (besides the Hubs) in the region (Table B).

Different informative resources will be consulted in the context analysis: interviews, documents provided by the Hubs (e.g. strategy documents), websites, meeting (notes), network mapping, and desk research.

Besides the *qualitative* context analysis (WP4), also a *quantitative* context analysis will be conducted by WP2 and WP3. WP2 will conduct a regional and European analysis of local demographics (population age, health, etc), food systems and consumption patterns. WP3 investigates the diets and consumption patterns in the different regions. In the end, the results of our qualitative context analysis will be combined with the *quantitative* context analysis to create an in-depth overview of the context where the Hub activities will take place.

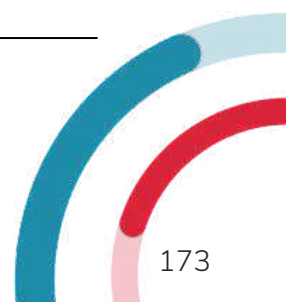
The most important resources in the qualitative context analysis are the interviews/focus groups with Hub leaders, Hub members and local food actors. The other informative resources can be considered as 'supportive' information for the interviews.

Table A. Part 1: Getting to know the Hubs

		Hub context				
		Methods				
		<i>Salutogenic interviews</i>	<i>Hub's documents, websites</i>	<i>Meetings with the Hub</i>	<i>Notes of SWITCH meetings</i>	<i>Network mapping</i>
WHY	Hub's purpose	x	x			
	Hub's mission	x	x			
	Hub's values	x	x			
	Hub's history	x	x	x		
	Hub's motivation to join SWITCH	x		x	x	
	Hub's experience with SWITCH so far	x		x	x	
HOW	Methods/ activities/ strategies	x	x	x		
	Network					x
	How many employers	x	x	x		x
	Roles and task of different (core) employers	x	x	x		x
WHAT	Type of activities (current and past)	x	x	x	x	
	Planned / intended activities	x	x	x		
	What do you need from SWITCH for the activities? *	x		x	x	

Table B. Part 2: Getting to know the regions

		Regional context			
		Methods			
		<i>Quick desk research</i>	<i>Interviews with Hubs</i>	<i>Outcomes WP2</i>	<i>Outcomes WP3</i>



What is the city-region? (What does regional mean for the hub?)	x	x	x	
What is the area of influence/impact of the hub? (e.g. neighbourhood, city-district, whole city, whole city-region)	x	x	x	
Is the HuB placed in a rural or urban part of the local* region?	x	x	x	
How many citizens live in the local region?*	x		x	
What is the age distribution of the local population?*	x	x	x	
What is the average life-expectancy in the local population?*	x	x	x	
What is the obesity rate in the local region?***	x	x		
What is the social-economic status of the local population?*	x	x	x	
What are the poverty levels in the local region?***	x	x		
How many different cultures, ethnicities and minority groups live in the local region?*	x	x		
What is known about health inequalities in the local region?***	x	x		
Food system: how many farmers, food producers, food distribution, food access within the local region?***				x
What is/are the typical food culture(s) in the local region? ***	x	x	x	x

*'local' means the area of influence/impact of the Hub

**In the qualitative context analysis (WP4), these topics/questions are approached from the perspective of the Hub leader/member and local food actor. WP2 will approach these topics/questions from a quantitative way by consulting statistics/national and European data.

*** The aim of this question is not to ask about what people used to eat in this region (traditional diets), but what they nowadays eat and why. During the Hub workshop, Andrea from the Sardegna Hub stressed that it is not so easy to identify typical food cultures. In earlier years, food culture was merely defined based on availability and price (when most people were poor). This is now not anymore the case, since many people have more resources and choose a 'food culture' according to their liking (e.g. the hipster food culture). Also, typical regional 'historical' food culture may include foods that are not considered healthful nor sustainable. So, it is very interesting to explore this in a qualitative way!

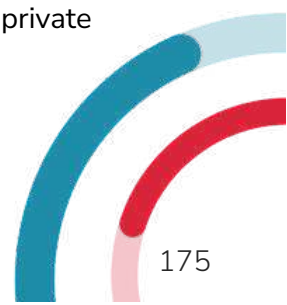
3. Interviews with Hub leaders, Hub members and Food actors

For interviews, a word file is created in which the interviewer and interviewee fill in the answers. The file will be uploaded to the SWITCH GDrive as a collaborative document. Do not include names of interviewees in the file but use the code instead.

Demographic information: the following demographic information is collected:

name
age
gender (select one)	<ul style="list-style-type: none"> ● male ● female ● other ● prefer not to disclose
role within the food system (e.g. farmer, consumer....)	<ul style="list-style-type: none"> ● policymaker ● food producer (farmer, fishermen, etc.) ● food provider (market, retailer, etc.) ● food service and hospitality (caterer, chef, restaurants) ● education system ● Healthcare provider ● Consumer ● Media and journalist ● Other
type of profession
education level attained (select one)	<ul style="list-style-type: none"> ● secondary school ● vocational/technical school ● university (partially completed) ● university post-graduate ● prefer not to say
ethnic/cultural food background

Topic guide For the interviews/focus groups with the Hub leaders, Hub members and food actors, a topic guide with relevant questions is developed that will be applied for the context analysis of each Hub (see Table C). Be aware that the topic guide (and length of the interview) differs for Hub leaders, Hub members and Food actors. Make sure that every (relevant) question is covered during the interview. It is important for the scientific rigour of the context analysis that the same questions are asked to the same (type) of actors in every Hub/region. Furthermore, it is important to ensure that the Hub leaders, Hub members and food actors answer the questions from their professional role, instead of their personal opinions regarding health and sustainability. Both their professional and private



opinions are interesting and relevant, but the emphasis should be on the point of view of different food system angles.

Barriers and opportunities Please keep in mind that we are also looking for barriers and opportunities for each individual Hub during the interviews. We are interested both in barriers and opportunities at the Hub level (e.g. is it difficult for a Hub to reach a certain target group?) and at the more regional/general level (e.g. why does the interviewee think healthy and sustainable eating is difficult in the Hub region?). It is expected that the questions of the topic guide will naturally steer the conversation to these topics.

Language If possible, the interviews are conducted in the native languages of the Hubs. If not, interviews will be conducted in English. Transcripts and analyses will be done in English.

Format In consultation with the Hub, interviews or a focus group will be scheduled with relevant Hub actors. For some Hubs, some of the questions are already answered. In case if the Hub prefers a focus group, there are two options:

- A focus group with the Hub leader and all Hub 'core' members;
- A focus group with all Hub members and a separate interview with the Hub leader.

For the local food actors, individual interviews are advised. *Ideally*, for the qualitative context analysis, the interviews are conducted with one person representing the relevant actor. According to the SWITCH proposal, each Hub should involve the following relevant food actors in their activities:

- 2 major agriculture associations (organic and non-organic)
- 2 minor associations of small organic producers
- 1 major aquaculture association
- 1 major fishery association
- 1 chef school
- 2 major caterers
- 2 restaurant associations
- Local markets
- 1 major retailer
- 1 consumer association
- 1 nutritionist association
- Different specific target groups within consumers (nested by gender, age, education and income)

As SWITCH adopts a system approach, it is very important to have insight into as many actors in the food system as possible. If it is for some reasons impossible to schedule an interview with a food system actor, please collect their perspectives through a short online survey (e.g. using Monkey Survey) with the following questions (feel free to ask kristel.polhuis@wur.nl and leah.rosen@wur.nl for support):

- what drives you to be engaged in food and sustainability
- what does sustainable food mean to you

- which resources are available and which ones are lacking to participate in this change towards more sustainable food in your region?

Informed consent and privacy protection

Before each interview, focus group or meeting, the SWITCH informed consent form has to be signed by each participant. The form can be found here [[Consent to personal data_SWITCH_ENG.docx](#)], if needed please translate.

Documents that contain privacy sensitive information have to be stored on a secured driver (never on the SWITCH GDrive), please read [WUR SWITCH Ethical Guidelines Data Collection, Storage, Sharings](#) for a description of procedures. Ask your organisation whether they can arrange a password protected folder on a secured server.

Data can be sent to WUR (laura.bouwman@wur.nl and kristel.polhuis@wur.nl) by using [Surfilesender](#). This app is approved by WUR. When you do not have an account, email Kristel or Laura to assign a guest account to you.

Checklist before interview/meeting/event

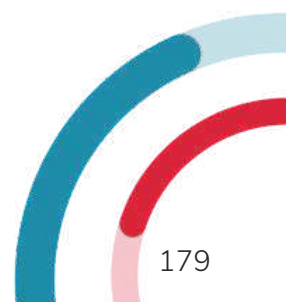
create	document with the identification key for the interviews: → assign an identification to interviewee that includes the first two letters of your Hub location, Interview number, role and name of the actor this document has to be stored separate from the form with demographic data and the digital recordings of the interview to ensure privacy	e.g. for Rome: RO-Int 1 = Hub leader [name] RO-Int 7 = dietician [name]
print	informed consent forms	make sure every participant reads the form carefully and signs. if participants are unable to read, please read out loud.
print	form with questions on demographics OR have form ready on laptop	mark each form with the identification key so you know which one belongs to which interview
print	form with questions on Hub characteristics and Hub regional characteristics (to make notes)	mark each form with the identification key so you know which one belongs to which interview when you use the printed form to mark your observations
check	recorder (phone or laptop with voice recording app or other recording device)	check the recorder before the interview, how does the app work, where to best place it on the table to get a clear recording ask each participant at the start of the interview whether to confirm being ok with the recording
enjoy	before the interview, spend some time alone and take a walk, a drink or listen to your favourite music	

Table C. Topic Guide Hub context analysis

Topic	Question	Question is asked to...			
		<i>Hub leader</i>	<i>Hub member</i>	<i>Food actor</i>	
Part 1: the Hub	Why	1. What is to you the purpose of changing towards more sustainable food in your region? (Me)	x	x	x
	Why	2. What do you find meaningful, important, beautiful/inspiring, valuable about this transition towards more sustainable food in <i>*Hub's region*</i> ?			x
	Why	3. What does “sustainable and healthy food” mean to you? What 5 keywords come to mind? (C)	x	x	x
		4. Can you think back to a moment in which sustainability more in general assumed relevance or a new meaning for you?	x	x	x
		5. Can you think back to a significant experience you had that made you reflect about sustainable food?	x	x	x
	Why	6. Can you describe how the Hub is developed?	x		

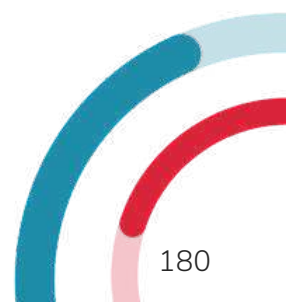


Why	7. What was your motivation to join SWITCH?	x			
Why	8. How is your experience with SWITCH so far?	x	x		
How	9. How many people work at the Hub?	x			
How	10. What is your role in the Hub?	x	x		
What	11. What kind of activities does the Hub conduct?	x	x		
What	12. What kind of activities do you want to initiate or further develop/optimize ?	x	x		
What	13. Which resources do you need to participate in this change towards more sustainable food in your region? (Ma)	x	x	x	
What	14. How can SWITCH help in optimizing or developing SWITCH activities?	x	x		
Part 2: Hub's Region	Landscape	15. What characterises the landscape of the *Hub's region*?	x	x	x
	Culture and people	16. Could you describe the culture and the people of *Hub's region*?	x	x	x





	Health	17. How would you describe the health of the people living in the*Hub's region*?	x	x	x
	Food system and culture	18. Could you shortly describe what characterises the *Hub's region*'s food system?	x	x	x
		19. How would you described the local food culture(s) of *Hub's region*?	x	x	x
	Vulnerable groups	20. Could you tell us something about vulnerable/marginalised groups in*Hub's region*?	x	x	x
Part 1: the Hub (continued)	Network	21. Have a look at the Hub's Network (Excel) sheet:		x	
		-do you miss any actors that were mentioned in the SWITCH proposal?		x	
		-do you miss any actors you would like to work with?	x	x	
		22. How do you feel about the current network?	x	x	
		23. How do you maintain relationships with network actors?			
		24. How would you describe the engagement between the actors and the Hubs?	x	x	



25. Can you tell a bit about your relationship with *name local Hub*?

x

Note: individual interviews are estimated to take 1.5hr with the Hub leader, 1hr with a Hub members, and 45 min with local food actor

Note: A focus group with hub leader and Hub members is estimated around 2.5hrs (incl. break)

Note: keep barriers and opportunities in mind – both at the Hub level and at the more general/regional level.

4. Who collects the data?

WUR has appointed a MSc student in some of the Hubs, the other Hubs will be contacted by a SWITCH affiliated researcher. The students will ask the Hubs to send relevant strategy and background documents about the Hubs. The student will conduct a context analysis for the Hub (s)he has been visiting. The WUR researchers will conduct the final overall context analysis (i.e. combining all separate context analyses in one cohesive document).

5. How to analyse the qualitative data?

The qualitative data analysis aims to identify per Hub:

Part	Topic	Question(s)	Interviewee
Hub profile/fingerprint	who they are <ul style="list-style-type: none"> • role in SWITCH • their meaning, management, action 	6, 7, 8, 9, 10 1, 3, 5	HL*, HM**, A***
	what they are doing/planning to do	11, 12	HL, HM
Regional profile	actor network connectivity	21, 22, 23, 24 25	HL, HM A
	(food related) health issues	17	HL, HM, A
	characteristics of the social and physical environment	15, 16	HL, HM, A
	regional food culture and system	18, 19	HL, HM, A
	people considered marginalised	20	HL, HM, A
Requirements for change (also feeds deliverable 5.1) → barriers and opportunities****	resources needed/lacking in general (barriers)	13 barriers mentioned in answers to other questions*	HL, HM, A

	resources to be provided by SWITCH (opportunities)	14	HL, HM
	resources available (opportunities)	1, 2, 3, 4 opportunities mentioned in answers to other questions*	HL, HM, A

*HL = Hub Leader; ** HM = Hub Member; *** A = Actor; **** barriers and opportunities can take shape in multiple forms and include practical skills, capacity (e.g. time), knowledge, motivation, passion and interest for change, economic resources, physical-environmental resources (e.g. buildings, green or blue space), networks and connections

6. What's next for the Hubs?

- WP5 – co-creating activities The context analysis will also be the starting point of the co-creating process for initiating the activities. The 'SWITCH co-creation task force' (coordinated by Leah Rosen, WUR, part of WP5) will facilitate a co-creation process for the Hubs by providing a protocol and relevant tools that the Hubs can use to either develop a new Hub activity or improve an existing Hub activity in collaboration with their target group.
- WP4 - Quantitative psychosocial evaluation For the evaluation and monitoring framework (WP4), the WUR will provide a survey of relevant psychosocial indicators (coping capacities, food literacy and food access) to the Hubs to monitor the psychosocial effects in a quantitative way. This survey will be filled in at baseline (before June 2024) and after completion of a Hub activity by the relevant target group. The exact format of this survey will be dependent on the activity the Hubs decided upon as well as on the intended target group of the activity.
- WP4 – Qualitative and Quantitative monitoring effectiveness of activities After completion of the activities, the WUR will perform another round of in-depth interviews with the Hub leaders, members and food actors to assess if, how, why and under which circumstances the activity worked. The quantitative (psychosocial survey) will also be repeated after the activity is finished.

Annex 11. Salutogenic Interview method

Salutogenic Interview (Goals & Main Questions) - English & Italian Version SWITCH WP5

<p>General context of the interview:</p> <ul style="list-style-type: none"> - This interview is part of a new EU project that aims to facilitate more engagement in sustainable food in Europe, and Sardinia has been chosen as one of the model regions. - The general aim of the interview is to get an initial idea of the perspective of regional actors towards sustainable food. <p>More specifically, the goals are:</p> <ul style="list-style-type: none"> To explore actors' stories and understand how they think, feel and act in relation to sustainable food. To understand what they perceive as barriers and opportunities for their engagement in more sustainable practices. To encourage a learning process that promotes the strengthening of actors' capacities, their engagement in the transition and collaboration with other actors. 	<p>Contesto generale dell'intervista:</p> <ul style="list-style-type: none"> - Questa intervista fa parte di un nuovo progetto dell'Unione Europea che mira a facilitare un maggiore coinvolgimento nell'alimentazione sostenibile in Europa, e la Sardegna è stata scelta come una delle regioni pilota. - L'obiettivo generale dell'intervista è quello di farsi un'idea iniziale delle prospettive degli attori regionali nei confronti dell'alimentazione sostenibile. <p>Più precisamente, gli obiettivi sono quelli di:</p> <ul style="list-style-type: none"> • Esplorare le storie degli attori e capire come riflettono, come si sentono e come agiscono nel contesto dell'alimentazione sostenibile. • Capire quali sono gli ostacoli e le opportunità che percepiscono per il loro impegno in pratiche più sostenibili. • Incoraggiare un processo di apprendimento che promuova il rafforzamento di capacità negli attori, il loro coinvolgimento in questa transizione, e collaborazione con altri attori.
<p>Format interview (60 min max. of duration)</p> <ul style="list-style-type: none"> • Signing of consent form • Completion of brief questionnaire about general background information • Initial broad reflection on the topic of sustainable food supported by printed schematic • Exploration of actor's story and perspectives through the three guiding categories of capacities: motivational, cognitive, actionable • Conclusion and feedback 	<p>Struttura dell'intervista (durata massima di 60 minuti)</p> <ul style="list-style-type: none"> • Firma del modulo di consenso • Compilazione di un breve questionario sulle informazioni generali di base • Esercizio iniziale di riflessione sul tema sostenibilità alimentare supportato da uno schema • Esplorazione della storia e delle prospettive dell'attore attraverso la lente delle tre categorie di capacità: motivazionali, cognitive e di azione • Conclusione e feedback
<p>MAIN QUESTIONS</p>	

<p>Can you think back to a significant experience you had that made you reflect about sustainable food?</p> <p>Can you think back to a moment in which sustainability more in general assumed relevance or a new meaning for you?</p>	<p>Può pensare ad un'esperienza significativa che le ha fatto riflettere sul tema dell'alimentazione sostenibile?</p> <p>Riesce a ricordare un momento in cui la sostenibilità più in generale ha assunto rilevanza o un nuovo significato per lei?</p>
<p>What is to you the purpose of changing towards more sustainable food in your region? (Me)</p> <p>What do you find meaningful, important, beautiful/inspiring, valuable about this transition towards more sustainable food in Sardinia? (Me)</p>	<p>Qual è, secondo lei, lo scopo di questo cambiamento verso un sistema agroalimentare più sostenibile in Sardegna?</p> <p>Cosa trova di significativo, importante, motivante, prezioso in questa transizione verso un'alimentazione più sostenibile in Sardegna?</p>
<p>What does "sustainable food" mean to you? What 5 keywords come to mind when you think about sustainable food? (C)</p>	<p>Cosa comprende lei quando si parla di cibo sostenibile? Quali 5 parole chiave le vengono in mente?</p>
<p>Which resources do you need to participate in this change towards more sustainable food in your region? (Ma)</p>	<p>Di quali risorse ha bisogno per partecipare a questo cambiamento verso un'alimentazione più sostenibile nella sua regione?</p>

Other questions:

Altre domande:

Template data analysis

Comprehensibility - understanding, interpretation, knowledge of sustainability, expectations, judgments	Meaningfulness - motivations, desires, fears, relationships, importance/purpose/values, meaningful experiences	Manageability - actions, activities, behaviours, resources, initiatives	Barriers - Problems, challenges	Opportunities - Solutions, improvements	Other

Annex 12. Hub Salutogenic actor survey

INFORMED CONSENT AND PRIVACY POLICY

1. About SWITCH

SWITCH is a Horizon Europe Project funded by the European Commission with contract no. 101060483, started in January 2023. In 48 months of duration, we are going to improve the understanding of knowledge, accessibility, and facilitation gaps that limit the present large-scale adoption of sustainable and healthy diets among European citizens and to develop and demonstrate appropriate innovative solutions and tools to facilitate a just transition towards healthy and sustainable dietary behaviour at all levels of the multi-actor food systems in EU.

2. About the activity:

This specific engagement activity is conducted by the Partner " _____", located in _____, at _____.

PLEASE ADD A SHORT DESCRIPTION OF THE ACTIVITY

Specifically, the goals are:

- To explore actors' stories and understand how they think, feel and act in relation to sustainable food.
- To understand what they perceive as barriers and opportunities for their engagement in more sustainable practices.
- To encourage a learning process that promotes the strengthening of actors' capacities, their engagement in the transition and collaboration with other actors.

Your participation is entirely voluntary and you are free to stop at any moment if you do not wish to continue. In any case, we are committed to ensuring that the information you provide is not disclosed to third parties in ways that allow your identification.

Together with this consent, you are provided with the information according to Art. 13 of the GDPR (EU Regulation 2016/679) on the processing of personal data, both common and particular. In this document, you can find the contact channels with members of the SWITCH project.

All communications with our organisation regarding this interview can be made to the following email address: switch.coordinationteam@cmcc.it

SECTION 2

Considering all the above information, I _____ (name and surname) confirm my interest in the SWITCH project and in taking part in this process.

Therefore, I consent to the processing of personal data, necessary for the execution of the project activities, as indicated in the provided information notice.

Yes No

I also consent to the processing of special categories of personal data, necessary for the execution of the project activities, as indicated in the provided information notice.

Yes No

SECTION 3

DEMOGRAPHIC DATA

name
age
gender (select one)	<ul style="list-style-type: none">● male● female● other● prefer not to disclose
Role within the food system	<ul style="list-style-type: none">● policymaker● food producer (farmer, fishermen, etc.)● food provider (market, retailer, etc.)● food service and hospitality (caterer, chef, restaurants)● education system● Healthcare provider● Consumer● Media and journalist● Other (SPECIFY):
Type of profession
Education level attained (select one)	<ul style="list-style-type: none">● secondary school● vocational/technical school● university (partially completed)● university post-graduate (if you want you can add a section to let them specify if it's a BSc, MSc or PhD)● prefer not to say
Country of origin

SECTION 4

SALUTOGENIC survey questions

QUESTION 1: What drives you to be engaged in food and sustainability?

QUESTION 2: What does sustainable food mean to you?

QUESTION 3: Which resources are available and which ones are lacking to participate in this change towards more sustainable food in your region?

Annex 13. Format Hub fingerprints

This format provides insight into how the Hub inventories (see **Annex 5**) feed the Hub fingerprints that are reported in deliverable 5.1 .

Part	Topic	Question(s)
Regional profile	what is the city-region and Hub area of influence	(new question)
	(food related) health issues	17
	characteristics of the social and physical environment	15, 16
	regional food culture and system	18, 19
	people considered marginalised	20
Hub profile	who they are <ul style="list-style-type: none"> • role in SWITCH • their meaning, management, action 	6, 7, 8, 9, 10 1, 3, 5
	what they are doing/planning to do	11, 12
Actor network	actor network connectivity	21, 22, 23, 24, 25
Barriers and opportunities for change*	resources needed/lacking in general (barriers)	13 barriers mentioned in answers to other questions*
	resources to be provided by SWITCH (opportunities)	14
	resources available (opportunities)	1, 2, 3, 4 opportunities mentioned in answers to other questions*

*barriers and opportunities can take shape in multiple forms and include practical skills, capacity (e.g. time), knowledge, motivation, passion and interest for change, economic resources, physical-environmental resources (e.g. buildings, green or blue space), networks and connections

Based on the inventory, describe for your Hub:

- a. **Regional profile:** what is the city-region and Hub area of influence actor network connectivity, health issues/demographics, social and physical environment, regional food culture and system, people considered marginalised
- b. **The Hub's characteristics and ambitions:** mission and vision of the Hub, history, people (number and role), what kind of activities are they involved in, what are their ambitions for the future and for within SWITCH
- c. **The actor network:** quality (type of connections and engagement) and quantity (actor inventory sheet)
- d. **Opportunities and barriers for healthy and sustainable eating:** summary results inventory from different perspectives (hubs, other actors). Barriers and opportunities can take shape in multiple forms and include practical skills, capacity (e.g. time), knowledge, motivation, passion and interest for change, economic resources, physical-environmental resources (e.g. buildings, green or blue space), networks and connections
- e. **Conclusions and further actions:** based on O&B and relevancy to SWITCH

Annex 14. Results Salutogenic Actor interviews Hub 2. Cagliari

Regional Analysis Cagliari and Sardinia region, Italy

Daniele Pestoni, July 2023

Aim

This study aimed to capture the perspectives of actors in Hub 2 (Cagliari and Sardinia region) concerning the barriers and opportunities they perceive towards engaging in healthy and sustainable food practices in order to further contribute to fostering engagement of and between actors.

Methods

The perspectives of 28 actors involved in the regional food system of Sardinia (mainly in Cagliari and Sassari) were captured following the Salutogenic Story Method framework. The process was co-creative: the interview - lasting between 30 and 60 minutes, audio recorded - had a basic structure that allowed flexibility, such that participants were allowed to “fill the container” by sharing their stories regarding healthful, sustainable food in the region.

The basic topic guide included 5 categories (Table 1). Two of these concerned barriers and opportunities perceived by actors, the remaining three referred to the components constituting the Sense of Coherence, a central construct in Salutogenic theory:

- Comprehensibility concerns the cognitive domain of knowledge and understanding.
- Meaningfulness represents the emotional, and motivational component and relates to the ability to create and assign meaning and value.
- Manageability encompasses actionable and behavioral capacity, related to the ability to access and make use of resources to meet life's demands.

These three components are considered the key elements driving an orientation towards healthful and sustainable food practices. Questions about them were used to induce actors to speak about barriers and opportunities from different angles.

At the beginning of the interview, participants were asked to speak about their involvement with nutrition and sustainability, and an open exploration of their stories followed, guided by the 5 thematic categories. The choice of such interview methodology was based on the assumption that such a structure would facilitate the emergence of actors' perspectives.

By allowing participants to speak about their experience in a flexible container, it was possible to gain insight not only directly from the content of their stories, but also on which element of the food system (e.g. food production, distribution, consumption), which topic (e.g. health, biodiversity, economic sustainability) and at which level (e.g. individual, close groups, collective) their attention predominantly lied.

Category	Examples of questions
Comprehensibility	What does sustainable food mean to you?
Meaningfulness	What drives you to be engaged with food and sustainability?
Manageability	Which actions or resources do you need to participate in this change towards more sustainable food in your region?
Barriers	What barriers do you perceive in pursuing your and the region's way towards a more sustainable food system?
Opportunities	What opportunities do you see to become more engaged in sustainability?

Table 1: 5 thematic categories and respective questions guiding interviews

The initial analysis consisted of listening to the recordings and noting any information that fell under any of the 5 categories for each actor. Actors were then grouped into constructed categories based on their role in the food system. The third step involved the identification of barriers and opportunities that emerged from the coded data. For this task, mainly data coded under these two homonymous categories were used. The coded data was then distilled into this report and in the latest stages, special attention was given to the recognition of common themes.

Participants

The categories of actors and their specific roles are shown in Table 2. Most participants had a professional relationship with the food system. Hub leaders identified and contacted actors based on a the list of categories of actors that are aimed to be involved in SWITCH activities:

Category of actors (n)	Actors specific roles (n)
Hub leaders (2)	Specialist in nutrition education and sustainable development policies (1) Specialist in rural development policies (1)
Food Providers and Associations (12)	Agricultural entrepreneur in biodynamic farming (1) Agricultural entrepreneur in organic farming (1) Agricultural entrepreneurs (food production, agritourism and teaching farm) (3) Agricultural specialist in organic farming (1) Bread artisan and entrepreneur (1) Officer of a consortium for the protection of pecorino romano cheese (1) Officer of a fishery local action group (1) President of a consortium of organic farmers (1) Director of a Farmer's Confederation (1) Wheat farmer (1)

Food Services & Hospitality (3)	Chef and manager of catering business (1) Chef at a university cafeteria (1) Head of sustainability at major catering group (1)
Food Retail (2)	Farmers market supervisor (1) Food cooperative administrator (1)
Healthcare professionals (5)	Biologist nutritionist (1) Biologist and food safety consultant (1) Nutritionist and psychologist (1) Medical researcher, also involved in a social service organization (1) Pediatrician (1)
Actors involved in Education (4)	President of a consumer association (1) President of a sport and social promotion organization (1) Social worker (1) Teacher and council member (1)

Concerning demographic data, the age range of participants was between 35 and 74 years old, with the median age of 52.5 years. The gender proportion male to female was 50%. In terms of the highest level of education achieved by each actor, 3 possessed a PhD degree, 10 a Master's degree, 4 a Bachelor's degree, 10 a secondary school diploma (9 from high school, 1 from a professional institute), and 1 had a middle school diploma. 10 participants had the professional status of freelancers, 10 were full-time employees, 6 managers, and 1 a part-time employee.

Results - Barriers & Opportunities

1) Hub Leaders

One hub leader, specialist in nutrition education and sustainable development policies, spoke about how in Sardinia there is a lack of capacity for storytelling about what has been done, in this case in the food system. As a representative of a rural development agency, the actor highlighted the importance of acknowledging and reporting through stories or simple communication mediums on how they contribute to change. For example through a course on the development of multifunctional activities (e.g. agritourism, teaching farms). According to the hub leader, with this course they restored the prospects of a generation disheartened by the absence of jobs and opportunities. Multifunctional activities not only represent a chance for those who choose to live in a more sustainable and peaceful way while integrating family and work. They represent a context in which experiences that spark emotions are offered and facilitated. When a person welcomes and brings guests inside their life experience, relationships are created.

The other hub leader, a specialist in rural development policies, recognized a barrier in the mentality of the Sardinian population and agricultural education, namely the tendency of comparing their regional economic reality with the one of other nations that have much larger productive capacity. It was emphasized that the focus should be on what the particular demands are in the region, and the need to find strategies to valorize their own

productions that are different from those of global markets. For instance, school catering has been identified as an opportunity to revitalize local productions, but the intuition to create a specific market instead of simply subsidizing involved companies, has not been fully capitalized on as an economic policy.

Furthermore, when speaking about the complexity of the system, the hub leader acknowledged the flexibility required to see all the different realities without wanting to average them out, and the challenge in engaging all actors in such a way that everybody works in the same direction. They underscored the importance of collective sense-making and vision - often conceived by particular, unique individuals - and of giving every actor visibility and opportunity to exercise their leadership. In this way, leadership takes on a diffused form depending on the stages of the project or sustainability process as a whole. At the interpersonal level, it was observed that presumption of honesty in other actors, perceiving trust, and building a network of solid relationships is what allows a collaborative search for solutions.

2) Food Providers and Associations

Organic farming (& biodynamic farming)

The president of a consortium of organic farmers and an agricultural entrepreneur in organic farming painted a broad picture of the barriers and opportunities found in this area. They both expressed the need to defend food sovereignty in Sardinia and to contrast the lack of economic return on the territory – which represents a big problem in the region - and in particular to regional organic producers.

From the position of small organic producers, the president of the consortium highlighted the vicious cycle they often find themselves in: due to the lack of economic returns from their activity, their company structures and means of production are not adequate enough to meet the needs of the market. They are often worried about where their products will be placed commercially and hesitant to invest to improve their activity. According to the actor, an opportunity for small producers would be on one side to take on more responsibility and initiative, on the other to cooperate with farmers markets and join a consortium, which would also enable a more targeted use of external financial aids.

When it comes to the supply chain, they both emphasized how there is an insufficient organization such that organic products are effectively brought to consumers, with such products often inserted in conventional retail channels. They explained that this is partly due to the fact that the bulk of public subsidies are given only based on whether an area is cultivated with organic methods, and suggested that (1) the directives set by the European Union need to be addressed. Moreover, they proposed (2) at the national level to strengthen the supply chain by increasing the engagement of large-scale distribution organizations and the public administration, and (3) at the regional/local level, to create supply chains in the territory that valorize local production, consumption and economic processes. This latter aspect could be supported by the model of biodistricts, which include an agreement between different actors in the territory (organic producers, citizens, associations, agencies, public administration, touristic operators, etc.) to sustainably manage regional resources. This model would also help address the problems created by

seasonal tourism and serve as a link between organic agriculture and sustainable tourism, giving Sardinia the opportunity to be seen as a sustainable region.

Overall, there seemed to be discontent with the public administration. One aspect concerns the lack of adequate agricultural policies and strategies and the scarce commitment regarding organic agriculture. The other aspect, mentioned by numerous actors, has to do with their capacity, and it can be summarized in the sentence of an entrepreneur in organic agriculture, who stated that “the times of the public administration are not in the least in step with the times of businesses”. They mentioned how years are required to receive financial subsidies for projects, significantly undermining their actualization. An agricultural entrepreneur in biodynamic farming also spoke about the incompetence and lack of willingness to listen, understand and intervene to help farmers that they perceived from both regional public administration and agencies. The actor also pointed out the difficult bureaucratic situation, in which, they observed, laws are made by individuals who have little contact with the reality of farming.

On the consumer side, an agricultural specialist in organic farming observed that there is still skepticism and lack of knowledge about the organic certification, also due to higher prices. In general, the actor remarked, when people are able to learn through information campaigns and tasting opportunities the difference between conventional and organic products, they are more inclined to prefer (and purchase) the latter.

Different realities of food production: wheat, bread & fishing

A farmer of ancient wheat who also sells their locally manufactured wheat products had insights on the common predisposition of farmers to avoid risks, being skeptical of novel approaches. Thanks to the endeavor this respondent has taken on and succeeded at, they are positive that by showing other farmers what has been done, and that there is a higher economic return, more similar realities could be created. The actor also sees opportunity in the rigidity of the legislature concerning the cultivation of wheat in Italy/Sardinia (regarding glyphosate, mycotoxin residues etc.), because it renders their products as certified and more genuine.

As with organic products, they suggested there is an opportunity for the general public and industries to value the holistic salubrity of products more than always seeking the lowest prices. An actor at the head of a large farmer’s confederation discussed the evident social and ethical problems that result from economic egoisms, both individually and in the largest corporations, especially when speaking about how research and innovation - which they deemed as crucial - are exploited to accumulate exclusive power. They also expressed the importance of valorizing the path taken by protection consortia [e.g. Protected Designation of Origin (PDO)]. A barrier on this topic that is being worked with has been addressed by an officer of the consortium for the protection of pecorino romano cheese, who noted that the European Commission issued directives to incorporate sustainability elements into PDOs, but without clarifying how.

The officer of a fishery local action group spoke about the drastic reduction in fish stock (especially of species commonly consumed), the lack of valorization of zero-kilometre fish and the fact that 80% of fish consumed in Sardinia is imported. The actor presented various possible solutions for the fishing industry: the diversification of the fisherman profession, for instance, through the offering of fishing tourism experiences, would increase their revenue and would reduce the extraction of fishery resources. Because of the lacking infrastructure

to process fish, this component of the supply chain could be developed. At the consumer culture level, they described a lack of appreciation of different species, their flavours, seasonality, etc. present in the public, and highlighted the opportunity to raise awareness in schools about less common species that are cheap and nutritious.

The problems identified by an artisan baker revolved around the lack of sociality and disconnection in the social fabric that revolves around bread, and the loss of the bond with the territory and cultural identity. They offered numerous ideas to face these barriers: (1) collectively, to form business and collaboration networks through grassroots initiatives; (2) interpersonally, to learn to listen and to get to know each other, to find common goals; (3) individually, to reconnect with their identity, dignity and art as artisans and to learn to tell their story well, guiding others through experiences.

Multifunctional activities: food production, agritourism, teaching farms

Three agricultural entrepreneurs who run multifunctional activities (farming, agritourism, teaching farms) identified barriers mainly associated with food production (e.g. water scarcity, need for external agronomic assistance). One of them also mentioned the challenge of finding the right clients that value (eco)sustainability. With their enterprises, they saw the opportunity to keep educating visitors (generally children) about the land, nature, tradition and culture through shared experiences that include, for instance, farming, transforming and consuming products. They expressed the aspiration to continue with and to strengthen such activities by increasing the frequency of visits from schools, so that children are able to get in touch with seasonal rhythms, and by including other groups and actors.

3) Food Services & Hospitality

The head of sustainability in a major catering group offered insights into the reality of a large corporation and the barriers faced in the process of integrating elements of sustainability into the corporate identity and practices. In terms of problems, they identified the objective challenges that the hospitality sector is facing (lack of personnel and wealth), and the slowness in changing the company culture. According to the actor, sustainability represented a communication channel with employees and associates and an opportunity to engage and educate them, as well as to foster a sense of belonging and identity with the company. They believed sustainability needs to be explained in a practical and simple way, and in a way that economic, social, and environmental benefits are all illustrated. They also spoke about the importance of having coherence and examples in the top management.

A chef and manager of catering business spoke about the restrictiveness and impracticability of so-called CAM (in English: Minimal Environmental Criteria), which set the proportion of certified (organic) products that a specific activity – in this case school catering – needs to use. To conform to these directives, managers need to import national or foreign products instead of using regional ones, which are often not certified because of the costs and packaging waste that a certification entails. The actor underscored the importance of a multi-actor technical table when the public administration defines the terms of subcontracts, such that projects can be more practical, effective and supportive of regional short supply chains and producers. Lastly, the respondent described the resistance found in pupils' parents, and often in teachers too, to accepting healthier food and tap water, because there is a propensity to pander to children's poor dietary habits.

According to a chef working at a university canteen there would be an opportunity to improve the quality of what they prepare by increasing the variety and specificity of suppliers. This suggestion was however at odds with the barrier posed by the large scale of the catering operation, which drove management to rely on a unique supplier due to the lower administrative workload.

4) Food Retail

The main barriers experienced by a food cooperative are of economic and bureaucratic nature. Because their model is not for profit and based on volunteering, their main challenge lies in maintaining the balance between guaranteeing producers a just retribution for products, and consumers a convenient price. They reported a very poor attention from the public administration, which could have made spaces available for the cooperative (rent is a great part of their financial burden). As opportunities they identified growth, collaboration with other cooperatives, developing their own label, and organizing cultural activities that promote togetherness.

The manager of a local farmers market shared a similar view, identifying food festivals and events as an opportunity for the market and the producers that sell products at the market to be known by more people. He did not speak of any particular problem.

5) Healthcare Professionals

Healthcare professionals, which included biologists, nutritionists, a psychologist, a medical researcher and a pediatrician, mostly adopted a systemic lens on healthy and sustainable nutrition.

They identified numerous barriers, at different levels (an actor stated “we don't know which way to attack the problem”). The following main themes emerged: lack of awareness and coherent information; poor dietary education and habits in children and adolescents; selfishness; excessive power in the hands of multinational corporations, who hold a mighty influence on our behaviour through marketing. Regarding opportunities, there was a unanimous call to substantially enhance education (especially in schools) and to learn and adopt effective communication strategies, as well as to foster an appreciation of simplicity.

A biologist working at a local food hygiene and nutrition service highlighted the importance of forming grassroots social networks and collaborations. They also expressed that Sardinia possesses an incredible heritage from all points of view: natural, sociocultural, gastronomic, of community which warrants more awareness and protection, and which presents great social and economic opportunities.

A pediatrician who holds prenatal and breastfeeding courses at a clinic observed that there is an important lack of awareness and perception of the unquantifiable harm that failure to breastfeed produces in children. They reported various barriers to a higher prevalence of breastfeeding: (1) economic incentives and lack of political and legislative clarity drive consumption of artificial breast milk alternatives; (2) culturally, breastfeeding is stigmatized and only women of a higher socioeconomic and educational status seek to learn how to do it properly; (3) lastly, healthcare workers are poorly educated on the topic. They highlighted how taking care of the beginning of the natural nutrition for the newborn – first breast milk only, then with the addition of ordinary food – represents an opportunity for the mother, and therefore for the family, to adopt healthy and sustainable dietary and lifestyle habits.

6) Actors Involved in Education

A social worker that is also involved with a school suggested that there is an opportunity to carry out more practical activities with children that allow them to learn how food is grown and transformed. They stated that the barrier for vulnerable individuals - people who rely on food banks - lies not only in access to exclusively products that are of poor quality, but also the scarcity in skills and knowledge.

A teacher and council member reported the lack of regional certified products due to the significant investment producers need to make to follow such a path. As an opportunity, they recognized the potential of developing common projects with neighbouring municipalities, reporting what has been achieved to regional administrations to attract more public investments. The actor stated: "if you give centrality to food or food-related well-being, you can build very important projects" involving the population, schools, associations and institutions, and by valorizing culture and celebrating tradition. The respondent went on to describe the responsibility and opportunity educational figures have, not only to carry out social and civic education along with activities related to food, but also to link positive emotions with the learning process, for instance by stimulating curiosity in children towards certain foods.

Moreover, the teacher, as well as the director of a sports and social promotion organization which also addresses nutritional education, observed that parents represent the greatest resistance when it comes to offering healthier alternatives (i.e. vegetables) for lunch. The latter respondent noted how it is a cultural problem, and that also suppliers would rather spend a little less and provide unhealthier meals. To overcome this barrier, to educate and to create any positive change, they found that the key is building healthy relationships based on trust, by being empathetic, willing to listen and suspending judgment. To deal with the lack of coherent, synthesized and clear information on nutrition, they would welcome expert nutrition educators in the organization.

"Erudition and dialogue are the foundation". The message of the president of a consumer's association can be summarized in this sentence. They underscored the importance of having skilled teachers, motivators and persuaders who stimulate curiosity and help people understand that "nothing is eternal and nothing is infinite". This to oppose the collective apathy, lack of will and solidarity, specifically around food waste. The respondent went on expressing that "if we work together, we can counter the mercantile drift towards the most exacerbated profit", also recognizing that courage is necessary.

Conclusion

The perspectives of actors in Hub 2 (Cagliari and Sardinia region) concerning the barriers and opportunities they perceived towards engaging in healthy and sustainable food practices were captured. Figure 1 shows the synthesis of these perspectives, independently from actors' categories.

Barriers were separated into two categories: (1) barriers present at the economic, political and territorial level (e.g. hindered food sovereignty, discontent with the public administration, depopulation and lack of generational turnover in agriculture); and (2) barriers concerning the sociocultural landscape (e.g. inertia, disconnection in the social fabric, loss of cultural identity). Regarding opportunities, four major categories were

identified: reconnection and synergy, valorizing the territory and culture, collaboration, and education and communication.

Because of the interconnected nature of the system, and because individual actors represent the elemental component of the system, connection and relationships emerged as the permeating forces not only that represent opportunities in and of themselves, but also that enable and empower other initiatives for change.

Moreover, barriers and opportunities are scattered throughout the whole system, they exist at different levels (from individual to collective) and within different subsystems. For this reason, there is the possibility to address these challenges from different angles, where every actor can contribute.

Reflection & Recommendations

The strengths of this study lie in the methodology that allowed actors to share their perspectives and stories, and in the intention to give hub leaders both an overview of and specific opportunities that could inform the planning of future hub activities. Furthermore, the interviewed actors were chosen and approached mainly by the hub leaders, and such contact was made based on an already existing relationship. On one hand, this allowed an opportunity for strengthening the relationship and engagement of actors. On the other hand, the perspectives reported here might not be representative of the reality of the hub. A recommendation in this sense could be to find means to identify actors that are not currently part of the hub leaders' network or to expand activities to a broader circle of actors.

The study may present a number of biases at different stages. In terms of demographics, the sample of participants does not fully or proportionally represent food system actors. For instance, the average education level was rather high, which could mean that certain positions within the food system may have been over-represented. In the process of formulating interview questions, and in the actual interviews, the choice of which direction to take, given the open explorative structure that was chosen, may have been biased both by the perspective of the SWITCH researcher, and by the fact that there was frequent dialogue with the hub leaders during the stay in Sardinia. Therefore, it is possible that certain issues, or certain ways to look at the topic (e.g. more from a systemic lens) - including the way in which themes were synthesized in the conclusions - gained more relevance.

In conclusion, this study served as a starting point for further engagement. The perspectives of actors in the Sardinian food system, both of those interviewed and those who are not yet part of the hub's influence can be explored in further activities.

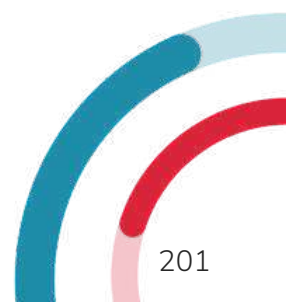
Overview of perceived barriers and opportunities

<i>category</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
Hub leaders (2)	<ul style="list-style-type: none"> - lack of examples for people that want to change towards sustainability - agricultural education focuses on comparing with other nations 	<ul style="list-style-type: none"> - build capacity for sharing stories of change - building a network of solid relationships that allows for a collaborative search for solutions

<i>category</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
	<p>rather than exploring demands within the Sardinia region</p> <ul style="list-style-type: none"> - valorisation of regional production is limited to subsidising involved companies - complexity of the food system challenges coordinated actors among all actors 	<ul style="list-style-type: none"> - develop strategies for valorizing the regional production that is different from those of global markets, e.g. through school catering activities - enable collective sense-making and visioning, giving every actor visibility and opportunity to exercise their leadership
<p>Food providers and associations (12)</p>	<ul style="list-style-type: none"> - low level of food sovereignty - insufficient organisation within supply chain for bringing local produce to consumers - public subsidies restricted to areas cultivated with organic methods - regional organic farmers caught in vicious cycle with low economic return due to inadequate volume, yet hesitant to invest due to worries about where their produce will be placed commercially - unsustainable, seasonal tourism - public administration not committed to organic agriculture and there is a lack of adequate agricultural policies and strategies - perceived disinterest and unwillingness of public administration and agencies to support farmers - lengthy process for financial subsidies undermines actualizations - bureaucratic complexity due to laws made at distance from reality of farming - consumers lack knowledge and are sceptical about organic certification - general public and industry seek for lowest prices - social and ethical problems resulting from current economic system - unclarity about incorporating 	<ul style="list-style-type: none"> - enable farmers to take responsibility and initiative, including cooperation with farmers markets or consortia - address EU directives for subsidies - strengthen national supply chain by engaging large-scale distribution organisations and public administration - create regional supply chains that valorize local production, consumption and economic processes - create bio districts to sustainably manage regional resources and support a sustainable identity for Sardegna - experiential (tasting) learning on difference between conventional and organic products support preferring/buying the latter - farmers showing other farmers about higher economic return - strict legislation for wheat cultivation in Italy/Sardinia renders products as certified and more genuine - promote the value of holistic salubrity of products - pro-actively address issue with PDO certification with EU officer - diversification of the fisherman profession, e.g. fishing tourism experiences - improve processing infrastructure for fish - include education on cheap and nutritious fish in school curricula

<i>category</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
	<ul style="list-style-type: none"> - sustainability in PDO certification - reduction of fish stock - lack of valorization of local fish production and high consumption of imported fish - lack of appreciation for diversity of fish among consumers - lack of sociality and disconnection in the social fabric around bread - loss of the bond with territory and cultural identity regarding bread - water scarcity - need for external agronomic assistance - finding clients that value sustainability 	<ul style="list-style-type: none"> - collectively form business and collaboration networks through grassroots initiatives around bread; - listen and get to know each other, find common goals - individually reconnect with your identity, dignity and art as artisans bread makers and to learn to tell your story, guiding others through experiences - experiential education with children about natural resources, tradition and culture
Food service and hospitality (2)	<ul style="list-style-type: none"> - general issues of lack of personnel and wealth within the hospitality sector - slow change of culture within the hospitality sector - restrictive and impractical certification system that requires import products rather than use regional ones. - parents are permissive concerning their children's - poor dietary habits 	<ul style="list-style-type: none"> - sustainability explained in a practical and simple way offers opportunity to engage and educate employees and associates, foster sense of belonging and identity within the company - coherence about sustainability at all company levels with examples in the top management - multi-actor representation when public administration defines term of sub contracts - increase of variety and specificity of suppliers
Food retail (2)	<ul style="list-style-type: none"> - balance between a just retribution for producers and convenient prices for consumers - lack of support of public administration 	<ul style="list-style-type: none"> - growth and collaboration with other cooperatives - development of own label - cultural activities that promote togetherness, e.g. food festivals
Health care (5)	<ul style="list-style-type: none"> - general sense of large magnitude of barriers - lack of awareness and coherent information - poor dietary education and habits in children and adolescents - selfishness and excessive marketing power of multinational corporations - lack of awareness and perception of importance of breastfeeding 	<ul style="list-style-type: none"> - enhance education, especially in schools - foster an appreciation of simplicity - learn and adopt effective communication strategies - forming grassroots social networks and collaborations - natural, sociocultural, gastronomic and community heritage presents great social and economic opportunities

<i>category</i>	<i>perceived barriers</i>	<i>perceived opportunities</i>
	among public, low education level of healthcare workers, marketing of substitutes	- promote breastfeeding as start of adopting healthy,, sustainable dietary habits for young mothers and their family members



Annex 15. Hub Communication template

WP X - Food Hubs - Working Doc

Last updated :

STATE OF AFFAIRS WP X

Where is WP X at?

-
- What about the collaboration with the Food HUBs?
-

CURRENT & UPCOMING WP X -TASKS FOR THE FOOD HUBS

-

WP X TEAM - FOOD HUBS - PREP FOR NEXT MEETING

Next meeting: ?

Past meetings protocol (answered/discussed questions): see below in this document

Questions by the WP X Team for the next meeting

-

Questions by the Food Hub Leaders for the next meeting

-

IMPORTANT WP X-DOCUMENTS

-

=> QUESTIONS FOR OTHER WPs

-

///// MEETING PROTOCOL

September xy.

- **Question: How will we ..?**

Answers/Discussion:

- WPX: ..

Annex 16. Example format Hub events (Gothenburg Hub)

Annex X. Format Hub fingerprints



Salutogenic actor event

SWITCH

Switching European food systems for a just, healthy and sustainable dietary transition through knowledge and innovation

Ideas for the actor event on 18th of October

Thursday 18th of October
Andrea van der Eerden

Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Different models

Sense of Coherence (SoC)

- Meaningfulness □ **Why?**
- Comprehensibility □ **What?**
- Manageability □ **How?**

Empathy model (EOE)

- Ego □ Focus on own view
- Others □ Focus on others' view
- Eco □ Focus on how to co-create view



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Why hold this event?




Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



What do we want to know?

- Why are the actors here?
- How do they view sustainability?
- What barriers do they experience?
- What opportunities do they see?
- What resources do they bring?
- What resources do they need?
- How can we create synergy?



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Need for event that inspires & creates connections and shared understanding



SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



How will we do that?



Sharing



Listening



Meeting



Reflecting

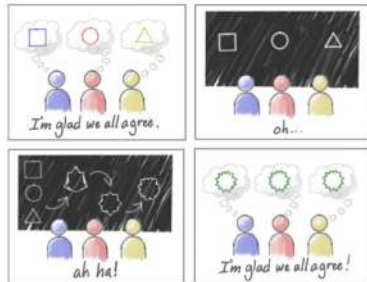
- Incorporate into:
- SWITCH introduction
 - Actor SoC reflection
 - Panel discussion
 - Kitchen table workshops



SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Creating a shared understanding



SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Planning of the event



SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Before start event

- Give everyone name tag
 - Easier to talk and connect to each other
- They write their..
 - Name
 - Organisation
 - Topic of interest (health/nutrition/sustainability/environment/etc.)
 - Resources that they bring



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour

Introduction

- Introduction of SWITCH By Rickard and Maria BH
- Explain idea of food hub By Maria NN
- Explanation of planning and goals event
 - Use Why, what, how in introduction



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour

Actor reflection SoC

- Ego stage
- Actors (including hub actors) have time to reflect on their SoC
 - *What drives me to be engaged in food and sustainability?*
 - *What does "sustainable and healthy food" mean to me?*
 - *What can I contribute to the transition towards a more healthful, sustainable food system?*



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour

Actor SoC reflections

- Provide actors with a card
- Actors put name + organisation/function on card
- Actors reflect and provide answers to the 3 SoC questions on the card
 - Individually or in small groups
- They put card on 1 of 4 flipcharts decides which kitchen table they will go to later



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Panel discussion

- Other stage
- Panel presents their why, how, what
- Questions are asked



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Panel discussions

- During lunch, themes are gathered from the flip charts by hub actors
- Panel will talk about their why, how, what
- Panel will answer questions related to the themes from the flipchart



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Kitchen table workshops



- Other stage + Eco stage
- Share SoC on 3 living lab themes to create shared understanding
- Resource + opportunity mapping
- Inventory of interests



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour



Kitchen table workshops

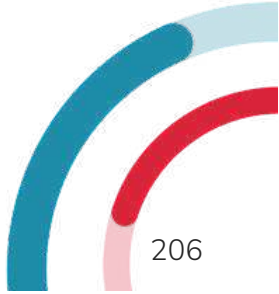


- Small groups 5-6 actors
- Ice breaker
 - Who are they
 - Why are they motivated
- Sharing about 1 of the 4 themes to create shared understanding
 - Barriers + opportunities
- Asset mapping
- Find opportunities for collaboration



Funded by the European Union

SWITCH - Project number: 101060483
Call: HORIZON-CL6-2021-FARM2FORK-01-15: Transition to sustainable and healthy dietary behaviour





Close off session

- Eco stage + ego stage
- Summary
- Future focus
- Reflection



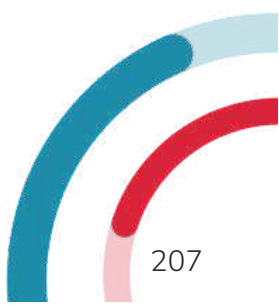
Closing off event

- Summary of every kitchen table discussion to share with all actors
- Present next steps: how will we move forward
- Reflection via Mentimeter
 - What did you learn from today?
 - What do you take from today?
 - What actions are you going to take?
 - Other..?



Remaining questions

- Venue
 - What does the venue look like?
 - Is there a beamer/projector?
 - Do we have items: flip charts, sticky notes, cards, markers, chairs, break-out rooms?
- Who will be facilitating? (panel discussion + kitchen table workshops)
- How many actors will come?
- What do we need to prepare (powerpoints, SoC reflection cards, explanations for exercises, Mentimeter)
- Actor self-reflection: individual? In groups?
- Kitchen table workshops: What ice breaker + questions do we want?



Annex 17. Rome Kick-off Meeting findings

Format and results of the workshop with the engagements actors

Policymakers

Policymakers				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
Widen vision	To clarify policy plans and trajectory	Co-creation, responsabilization	Share objective	
MAIN EXPECTED OUTCOME				
New policies to facilitate and increase knowledge & accessibility	To produce more effective guidelines	Increasing their willingness to arrive to the end		
MAIN RISK AND/OR CHALLENGE				
Misunderstanding Not adapted to local reality	Policy change due to policy shift in goals	Manipulation for own goals		
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. Short policy briefs 2. Meetings 3. Events to inform the advisory team of policymakers	1. Workshops 2. Collect inputs (documents) 3.	1. Agreements (contracts) 2. Collaboration with cabinet 3. To be part of a working group on the topic	1. 2. 3.	1. 2. 3.
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. Use short brief 2. Science-based credibility 3. Relevance to policy goals	1. Public consultations 2. Invited expert/representative consultations 3.	1. Professional relationships 2. Invite them to see activity 3.	1. 2. 3.	1. 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				
1. Lack of time 2-3. To be highly supportive to policy credibility and acceptance				

Food providers

Food providers				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
Make everyone understand what sustainable means	Idea coming from different approaches	Trust-based relationships	Trust-based relationships	
MAIN EXPECTED OUTCOME				
	A meaningful project for farmers		New project developed	Rebuild linkage between product & consumers
MAIN RISK AND/OR CHALLENGE				
No time			Delivery system doesn't match Excessive costs	
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. No survey 2. Agrarian informant 3. Institutional sites/platforms	1. Round table 2. 3.	1. Events 2. 3.	1. Short survey (with assessment) 2. Supplier list 3. Network	1. teaching farm 2. 3.
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. Farmer's markets 2. 3.	1. 2. 3.	1. Participatory projecting 2. 3.	1. Municipalities, school canteen, chefs, logistic 2. 3.	1. Educational food campaign 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				

Media and Journalists

Media and journalists				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
Introduction	External point of view	Engage more and diverse targets	Partnership & counting on them	Inspiration
MAIN EXPECTED OUTCOME				
Becoming relevant	Critical thinking	Press coverage	Lobbying (+)	Make them passionate about the topic
MAIN RISK AND/OR CHALLENGE				
Lose their attention	Spilling news	Lobbying (-)	News bottleneck	Take advantage of us
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. Press release 2. Events (workshops, round tables) 3. Newsletter	1. Round tables 2. Retreat 3. Workshops	1. Hackathon 2. Journalism award 3.	1. Co-authoring 2. Campaign 3.	1. Podcasts 2. Thematic channels 3.
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				

Food services and hospitality

Food services & hospitality				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
MAIN EXPECTED OUTCOME				
MAIN RISK AND/OR CHALLENGE				
	The chefs are very busy (might not have time to join a webinar)	-Chefs want to make their own decisions -They have a different perspective on what is sustainable		
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. Platform for sustainability data 2. 3.	1. Webinars 2. Calculate carbon footprints for recipes and set up climate goals 3.	1. Involve the food guests with information about the local food or carbon footprint on the menu 2. 3.	1. 2. 3.	1. 2. 3.
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. 2. 3.	1. New recipes from food waste 2. Use everything from the food 3.	1. Share advantages and experience 2. Practical cooking events 3. Involve all staff in the company	1. 2. 3.	1. 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				
-Economical good -Saving time -Extra value for their company		-Saving time -Having a network -Important actor for changing the consumption (recognition of their role) -Network with the producers (local)	Win for them and win for the planet and health.	

Nutritionists, healthcare providers

Nutritionists, healthcare providers				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
Inform colleagues, establish letters, communication channel, what is unknown to a particular group	-How to change habits, behavior -What do they need from us to spread information? -What are barriers to adoption	-More, greater impact -More spread to community	-Create a network of providers in nutrition and health -Workshops	-Motivation -Integrates practices into everyday -Economic support
MAIN EXPECTED OUTCOME				
How to change habits, which habits	Provide tools and advice to address barriers	-Greater improvement in diets -Long-term sustainability	-Organizational change (menus, environment, schools) -Growing network	-Change habits, behavior -Further growth -Create further change -Sustainable
MAIN RISK AND/OR CHALLENGE				
-Assume there is one "correct" diet -Overworked/tired -Misleading messages/oversimplification -Lack of investment/overcommitment -Build trust	-Not 1 diet -Old solutions (no innovation)	-Not 1 diet -Tunnel vision on one issue -Expectations not aligned	-Not 1 diet Aims may differ Conflict of interest between health & food provider	-Not 1 diet -'science' may be challenged
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. Conferences/meetings 2. Fact sheets/pamphlets newsletter 3. Talk on social media 4. Training course	1. Surveys 2. Meetings/Dialogue 3.	1. Round tables (feedback) 2. 3.	1. 2. 3.	1. Resonance with members, motivation 2. Fits everyday practice 3. Cohesion/feel a group
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				

Education systems

Education systems				
Inform sharing knowledge	Consult solicit advice and input	Involve on-going work, learn, share with actors	Collaborate partnering for development, delivery of activities	Empower support actors in their actions
MAIN GOAL				
Transfer SWITCH results	Understanding what they already know		Help to reach our goals, motivate them to act	
MAIN EXPECTED OUTCOME				
Raise awareness	Broaden our knowledge	Engage them		Share knowledge further
MAIN RISK AND/OR CHALLENGE				
Misunderstanding	Monetary (find right expenses)	Lack of participation	Too many efforts, too many requests. Intercultural issues. Ethics	No personal engagement Intercultural issues. Ethics
3 BEST TOOLS (Experiments, events, round tables, surveys, workshops, media campaign, trainings, etc)				
1. Workshop 2. Social media 3. Movies	1. 2. Survey 3. Focus group	1. 2. Interactive workshop 3. Participatory social media	1. RANICUNG? 2. Experience 3. Workshop	1. Campaign 2. Events created by the school 3. Training students
3 BEST PRACTICES (from our field, but also from other fields and disciplines)				
1. Danish sustainable food song/video 2. 3.	1. Prompting picture card games 2. 3.	1. 2. 3.	1. 2. 3.	1. Fridays for future 2. 3.
WHY THESE ENGAGEMENT PRACTICES WERE SUCCESSFUL?				
Fun message	Easiness to interact			

Annex 18. Hub fingerprint summaries, English

Hub 1. Rome and Lazio region

Regional Context. The Rome and Lazio Hub is located in the central part of Italy. The region is home to 5.9 million people. Nearly half of them reside in the city of Rome, the largest urban center in the region and the entire country. Alongside 120 other towns, Rome constitutes the Rome Metropolis (*Città Metropolitana di Roma Capitale*), which represents the maximum area of impact of the Hub's activities.

Apart from Italians, the regional population comprises around 11% non-native inhabitants (mainly from Romania, Philippines and Bangladesh) contributing to the region's cultural diversity.

Regarding socio-economic status, there is a perception of increasing poverty, primarily due to rising prices. Together with this the employment rate is of around 46%, with still a significant gap between women (44.4%) and men (60.1%). The level of education is rising, with only 3.8% of the population being illiterate or without formal education and around 60% who hold qualifications higher than the middle school.

Concerning health, the major issue is represented by the so-called "diseases of affluence". Excessive consumption of food, especially low quality one, combined with a decrease in physical activity lead to an increase of cardiovascular diseases, metabolic disorders and weight problems. Lazio is among the Italian regions with the highest rates of obesity and overweight. This phenomenon is also increasing in the younger age groups. The latter are also increasingly subject to the onset of eating disorders.

In this context, vulnerable and/or marginalized groups in accessing healthier and sustainable food were identified in: 1) economically disadvantaged individuals (elderly, unemployed, and those with low income) due to limited food access; 2) those with lower education levels (often overlapping with the first category) as they lack access to certain information; 3) children and young people, more susceptible to developing unhealthy eating habits; and 4) people with disabilities (e.g., autism), often overlooked by institutions. Additionally, small producers and businesses are also identified as vulnerable groups due to the effects of climate change and rising prices, often resulting in the closure of their activities.

Food System and Culinary Culture. Regional climate and morphology allows for the spread of agricultural activity which is characterized by a high biodiversity. This is accompanied by a high diversity of local products (from dairy products to honey to legumes and vegetables). The regional territory can potentially provide everything a human being needs to include in a healthy diet.

Concerning food flow, Rome is the largest centre of food consumption in Italy and so in the Lazio region. Considering tourists and the working population, approximately 5 million people eat in Rome every day, twice the resident population. It follows that the surrounding production system is not able to guarantee a sufficient level of supply. Consequently Rome consumes many foods that come from the rest of the world, not only from other parts of

Italy. Nevertheless, consumption of fresh foods (vegetables, fruits, meat, and dairy) remains high, partly due to the network of 144 local markets spread across various neighborhoods, facilitating short food supply chains within the city.

There is still a strong cultural identity and gastronomic tradition with around 300 specialties and 70-80 typical recipes. The regional cuisine, deeply intertwined with local history and traditions, comprises simple products and emphasizes minimal waste. For instance, some typical recipes use the so-called "*quinto-quarto*" animal parts that are usually discarded. Or some of the traditional recipes in the Ciociaria area as the "*minestra con pane sotto*", a soup made with stale bread and vegetables. Another characteristic of the regional cuisine is its inclusivity. Being a crossroads for numerous populations for centuries the region hosted different gastronomic cultures. The most common example is the Jewish-Roman cuisine (Jewish cuisine), still vibrant in Rome. In recent years it is also possible to observe great liveliness of groups with different ethnic backgrounds that also have their own specialties and typical recipes.

Traditional food is predominantly kept alive by restaurants. Due to the fast-paced lifestyle, finding time to cook traditional dishes at home becomes increasingly challenging. This trend is linked to the progressive loss of the ability to choose and prepare specific foods, impacting how people shop. For instance, there's a preference for ready-made dishes or pre-cleaned vegetables, and consumers tend to purchase only a few familiar products, risking a lack of diversity in their diets. Correspondingly, recent studies based on school interviews demonstrate that younger individuals are moving away from the Mediterranean diet.

HUB Context. The Rome and Lazio region Hub is represented by Agro Camera, the Special Agency of the Rome Chamber of Commerce that promotes and enhances the agri-food system of the Rome Metropolis. Within its role, Agro Camera manages the Commodity Exchange and organizes activities supporting virtuous agri-food companies and individuals. Being part of an institution, Agro Camera represents a top-down HUB.

Central to the Hub's mission is the support for fresh, local, and seasonal products, considered not only beneficial for the environment and people but also as an important cultural heritage.

Aligned with its role and mission, activities promoted by Agro Camera focus on various aspects of agriculture and the agri-food system: agro-environment and biodiversity, social aspects (e.g., promoting social agriculture), tourism (e.g., agritourism), and education (e.g., educational farms). For example, it has a long history of environmental and food education in schools. Additionally, Agro Camera manages a website (<https://www.romaincampagna.it/>) promoting activities and places to visit in the Roman countryside. Lastly, it is involved in food certification projects aiming to protect the diversity and quality of food products.

Agro Camera comprises nine individuals, each with diverse backgrounds but united by great knowledge of the regional territory and food system. The physical Hub is located in the heart of Rome and divided into two offices, one of which (*Centro Servizi di Roma in Campagna*) is open to the public and can host events and activities.

As part of the Rome Chamber of Commerce, the Hub's actor network is wide, consisting of various actor types, each with specific roles and impacts on the food system. While there's a high representation of institutions, there's a lack of direct connections with citizens and consumers. Additionally, there's still no connection with the fishing sector. Typically, contacts are established during specific events or activities organized by Agro Camera. Some of the connections remain stable only for the duration of a specific event (e.g., a fair). Others can remain stable and/or start a domino effect, as food system actors, more than others, are connected with each other.

SWITCH is completely aligned with the values and mission of the Hub. The project represents an opportunity to enhance the Hub's actions in the region (e.g. food education in schools and consumer data collection).

One of the Hub's main ambitions is reaching consumers. Despite growing environmental awareness, people are still limited to make significant changes. This is often linked to a lack of information and/or misleading communication causing confusion and low trust. In this regard, SWITCH represents a significant opportunity as it can provide scientific support and credible information to both consumers and producers.

Another ambition is to recover and value some of the local markets in the city with the aim of promoting local food purchasing. Currently, markets are frequented only by some segments of the population (especially the elderly) due to their opening hours.

In transitioning towards a healthier and sustainable diet, difficulties are tangible. The lack of proper communication and solid food and environmental education, along with life rhythms and rising food prices, pose significant barriers to change. However, the opportunities offered by the territory and the Hub itself are plentiful. Firstly, the region is home to motivated individuals, especially among the younger. The strong culinary culture and the abundance and diversity of local food products provide a solid foundation for constructing a healthy and sustainable diet. Disseminating the story of a product or dish can be a powerful lever in reconnecting people with the value of food. In this process, markets can serve as meeting points between consumers and producers, enabling producers to share information about their products, possibly accompanied by figures like chefs who can showcase how to value a product.

Regarding the Hub, one of its greatest resources is represented by the people who are part of it. Their great knowledge of the regional food system and their efforts to find a better way to support fresh, local and seasonal production represent a strong basis to start co-creating activities. Furthermore, the Hub has physical space that can be utilized to host events, conferences, and meetings with the general public. It's currently underutilized but holds the potential to become a reference point for activities. Lastly, while being a top-down Hub can be challenging due to bureaucracy and formalities, it provides access to contacts within the political-institutional sector, which has a significant impact on change.

Hub 2. Cagliari and Sardinia region

The Sardinia region is one of the food hubs where activities will take place to achieve the transformative goals of the SWITCH project. The island hosts a population of almost 1.6 million people and offers various landscapes that enhance its natural richness and

biodiversity. Agriculture covers almost half of Sardinia's territory, mainly in plains and hilly areas, while forests dominate the inner regions, displaying the highest percentage of forests among Italian regions. Sardinia has an ageing population, with an average age surpassing the national average, yet it is known as one of the renowned "blue zones," characterized by longevity and a high number of centenarians. However, concerns arise about health, with high rates of overweight and obesity among adults and minors (32% and 22%, respectively, in 2022), highlighting the impact of unhealthy lifestyles and poor dietary education. The socioeconomic fabric of Sardinia, influenced by disparities in income, education, and employment, reflects variations among regions and sectors. Agriculture, such as sheep husbandry and olive farming is the basis of the rural economy. However, agriculture faces profitability issues, price volatility and challenges related to climate change. Rural areas, with limited economic diversity and job opportunities, exhibit lower socioeconomic conditions compared to urban centres. The island's poverty and social exclusion index reached about 36.4% in 2022, steadily increasing in recent years. However, economic, and social disparities and lifestyle perpetuate vulnerability and marginalization, limiting access to healthy and sustainable food, especially among low-income families, university students, children, and the elderly.

Sardinia, through regional and local administrations, actively promotes access to quality food and sustainable food systems. Initiatives revolve around agroecological practices, organic farming, conservation of traditional practices, and investments in sustainability. The significant growth of organic agriculture in Sardinia and the establishment of Italy's largest regional biodistrict in 2021 highlight a significant commitment to sustainable agricultural practices. However, this positive development contrasts with the Sardinian food consumption situation. While the diet shows similarities to other Italian regions overall, Sardinia records the second-lowest consumption rate of legumes compared to the rest of Italy.

Sardinia's food hub, represented by Laore and supported by the IAFES Sassari division of the CMCC foundation, embodies the region's commitment to sustainable agricultural programs and rural development. Established in 2006, Laore is the regional agency responsible for implementing agricultural programs and promoting rural development in Sardinia.

In line with the objectives of the SWITCH project, Laore aims to strengthen sustainable food systems through modern concepts of supply chains, rural multifunctionality, and sustainable practices, promoting collaborative activities and partnerships. The network of the food hub, involving multiple regional actors and entities, would be the basis for implementing SWITCH initiatives. Nevertheless, the hub remains open to expanding its connections and fostering collaborations with additional actors. Challenges persist concerning economic, political, and sociocultural landscapes to achieve the objectives. However, opportunities to transform Sardinia's food systems are diverse and vast. They range from promoting collaborative networks and sharing stories of change to enhancing local production through initiatives such as school catering activities and regional production chains, education, and more. These initiatives aim to combine traditions and sustainability, leveraging cultural activities and local collaborations, emphasizing the importance of clear nutrition information and trust-based relationships. Laore will

collaborate with local actors to achieve SWITCH objectives by creating lasting connections and changes. This will be possible due to the growing interest of food system actors in sustainability and the richness of the Sardinian territory represented by the excellence of local productions, its agrobiodiversity, and culinary traditions.

Hub 5. Berlin and Federal State of Brandenburg

The Berlin HUB of the SWITCH project is organized by Baumhaus, a collaborative project and neighborhood event hub space for sustainability in Berlin.

Das Baumhaus founded and works with a collaborative network of neighborhood food hubs called "LebensMittelPunkte (LMP)", which are community centers or similar places with a special focus on food, sustainability and community cohesion, located across the city. "Healthy food for everyone" and "Transforming the food system in Berlin, together" are the slogans of the growing network.

HUB's purpose: Accelerating food system change locally

HUB's mission: Building a network of neighborhood food hubs - as a part of the Berlin food strategy, collaborating with a broad network of local actors

HUB's values: Self-organization, food sovereignty and agroecology, healthy food for all, building community, creativity, co-creation and individuality

Das Baumhaus is the project space of the Berlin LebensMittelPunkte network: project office, platform, LMP prototype and living lab for the development of the LMP network all-in-one. It provides individual consulting and support for all LMP initiatives, trainings and workshops, and organizes funding projects and cooperations between the LMP network and other food system actors. It's the first point of contact for places and projects that want to become an LMP.

As of November 2023, there are currently 27 LMP initiatives and more will join in 2024, each one with its own specificity in terms of activities and actors involved. Their activities range from acting as distribution points for regional CSA farms, to food sharing and cooking together, to other activities related to engagement and education on health and nutrition. The scaling of the LMP network in the coming years will increase access to regional sustainable and healthy food at the neighborhood level in the city of Berlin, and will lead to an increase in the demand of agroecology-based products in the region of Brandenburg.

The HUB, Baumhaus and the LMP network are part of the city-region's diverse and dynamic ecosystem of food initiatives, small producers and projects along the food chain and food policy strategies. The HUB's network ranges from local neighbors to regional food providers, food cooperatives, food sharing initiatives, nutritionists and health care providers, and even to local administration on the city and district levels — as well as of course the LMP initiatives in all districts of Berlin.

Three main challenges for the SWITCH Berlin HUB were identified:

- Supporting the multitude of local actors of change who are already working on local solutions for sustainable diets → how to scale the existing solutions/projects/activities (i.e. scaling deep)?

-
- Supporting the local food hub initiatives, engaged citizens who want to organize healthy and sustainable food for all → how to scale the neighborhood food hubs (i.e. scaling out)?
 - Supporting the development of the food strategy, esp. the connection/communication/focus on scientific goals → how to scale the food strategy in our network (i.e. scaling up)?

As the city's districts are very different from one another in terms of socio-economic and demographic conditions, the decentralized network of LMPs, which are adapted to the contexts of their neighborhoods, allows us to develop activities that are targeted to reach particular vulnerable groups. Within the SWITCH project, the Berlin HUB and LMPs will have a special focus on migrant communities. Berlin is a multicultural city where more than 800,000 people are not German. Each migrant group brings their own food culture, but there are also visible health inequalities in the city. Especially since 2015, the population of refugees has increased rapidly and remains highly exposed to suffering from a lack of access to healthy and sustainable food.