D7.1-7.2[1] *Policy Recommendations*

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[1] The consortium requested the Commission to bundle D7.1 and D7.2. This request was accepted by the project officer. The motivation of the merging is attached as Annex II in this report.

Contents

Introduction: towards a European Union Food Policy

Food is no longer produced and eaten in one place. Instead, it has become transformed into a commodity which is bought, processed and sold (and often bought, processed and sold, again and again) in an industrialised and globally embedded system. This system is facing a number of crises—for the environment, for producers and for consumers—resulting in and from vulnerabilities to shocks and stresses at numerous points in this complex system. However, not only do these crises arise from dysfunctions within the food system, they are attributable to wider determinants. At the micro level, issues such as household resources, the health status of householders and level of education will impact on access to food and individuals' abilities to fully utilize that food. At a macro level, drivers such as environmental change, biofuel demand, trade and market structures, emergent technologies, urbanisation and social protection policies all have an impact on food and nutrition security (FNS) (Pieters et al., 2013). Consequently, the current situation is one in which FNS cannot be guaranteed for all and food and nutrition *in*security has, in recent years, increased even in development countries. This is exemplified by the fact that almost 11% of people in the EU are living in food insecurity (Loopstra et al., 2015).

Although the European Union (EU) officially supports a systemic sustainable production and consumption approach, actual EU policies appear to have been immune to this principle. This is arguably due to a conflation of 'agricultural policy' with 'food policy'. This is problematic because while the Common Agricultural Policy (CAP) forms a corner stone of all EU policies it has been criticised as inadequate for tackling food system sustainability. This is primarily due to its neglect of other aspects of the food system such as environmental and climate change concerns, as well as perspectives on healthy diets. In reality, the food we eat is derived from a system which is shaped by a range of distinct policies—including those on agriculture, food safety, public health, trade, environmental protection and employment—developed in silos, in isolation from each other. These policies have emerged incrementally in parallel with CAP but to date, there has yet to be a single, integrated systems-wide food policy in Europe to tackle FNS as a systems-wide challenge.

It is for this reason that TRANSMANGO sought to develop recommendations for policy to foster food and nutrition security in Europe and **our main recommendation is for the design of an EU-wide food policy**. TRANSMANGO findings point out that in order to achieve this there is clear need for:

- more integrated and systemic thinking about our food systems across the environmental, community, economy, social and health policy fields;
- the addressing of a range of interconnected vulnerabilities which have led to widening gaps between food sustainability and food security at all levels (individual, household, social class, local, regional, national);
- expansion of the range of interested stakeholders and 'policy community' players who regard the food question as central to their mission.

These findings translate into five strategic recommendations detailed in the following sections. The first recommendation is the most general in its message and those which follow are more specific. In addition, the first recommendation (the need to recognise food and nutrition security as a systems-wide challenge) is inherently embedded in Recommendations 2-5. Although these policy recommendations address primarily European policy actors and certainly require further

concretisation at national, regional and local scale, it is believed that as a whole these represent a set of critical ingredients for moving towards a more comprehensive and consistent food policy in Europe.

Recommendations

Recommendation 1: Address the multi-faceted nature of contemporary food and nutrition security vulnerabilities by developing a comprehensive and integrated food policy for Europe which recognises these challenges as systems-wide

Among the various strands of food scholarship—environmental change, rural sociology, political ecology—the conceptual understanding that food needs to be considered from a holistic, systems-wide perspective has gained traction. Theoretical exploration of 'food systems' highlights its complexity and the emergence of unexpected outcomes, with feedbacks to drivers both internal and external to the food system. Correspondingly, the food systems approach reveals a plurality of options for greater resilience and potential synergies. Systems-based analyses of food are strongest if explicitly recognising its cross-scalar nature, particularly its global embeddedness (Ingram, 2011). Food systems are therefore not only appropriate levels of analysis, they are also the level at which policy responses should be designed.

As visualised in **Figure 1**, TRANSMANGO's conceptual framework (for more details of its development see **D2.1**[2]) above all underlines and underpins the systemic nature of contemporary Food and Nutrition Security (FNS) in Europe. To summarise this figure, beginning from the acknowledgement that the food system operates in both local and global biophysical, socio-cultural, economic, political and technological contexts (drivers), the unit of analysis is 'the food system regime'. This theoretical model makes explicit the role of local, national or international institutions—regulative, normative and cognitive—in coordinating activities and in the dynamic interplay between these activities, and actors and assets. In terms of policy action, there is a need to recognise that food systems have no national boundaries, they have national, regional and local specificities, and that food is an outcome of manifold global-local interactions.

This framework continues by suggesting an analytical distinction in the assets on which the food system activities draw (natural and human-made), to underline the crucial importance of technology, artefacts, knowledge, capital, labour and cultural meanings as well as ecosystems for overcoming barriers to positive food system outcomes. This conceptual framework also recognises that there are actors with various interests operating in the food system and highlights the importance of giving careful consideration to power relations, and who the winners and losers of interactions may be. For example, the expansion of food conglomerates and the globalisations of the food system are undoubtedly key drivers of increased rates of processed food consumption and the resulting 'nutrition transition'. Also illustrated in **Figure 1** is the range and type of activities which take place within the regime—not only producer and consumer but also pre-production, intermediate, post-production and post-consumption activities. Finally, apart from the components of the food system regime, this conceptual model identifies the dynamics, interactions and feedbacks among them. This reflects the inherently cross-scalar and cross-sectoral nature of the modern food system, in which its constituent components are highly interconnected. In terms of policy action, ensuring long term food and nutrition

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[2] D2.1 = TRANSMANGO Deliverable 2.1

security in the face of food system change brought by investment, expansion, innovation and competition should become a key area of attention.
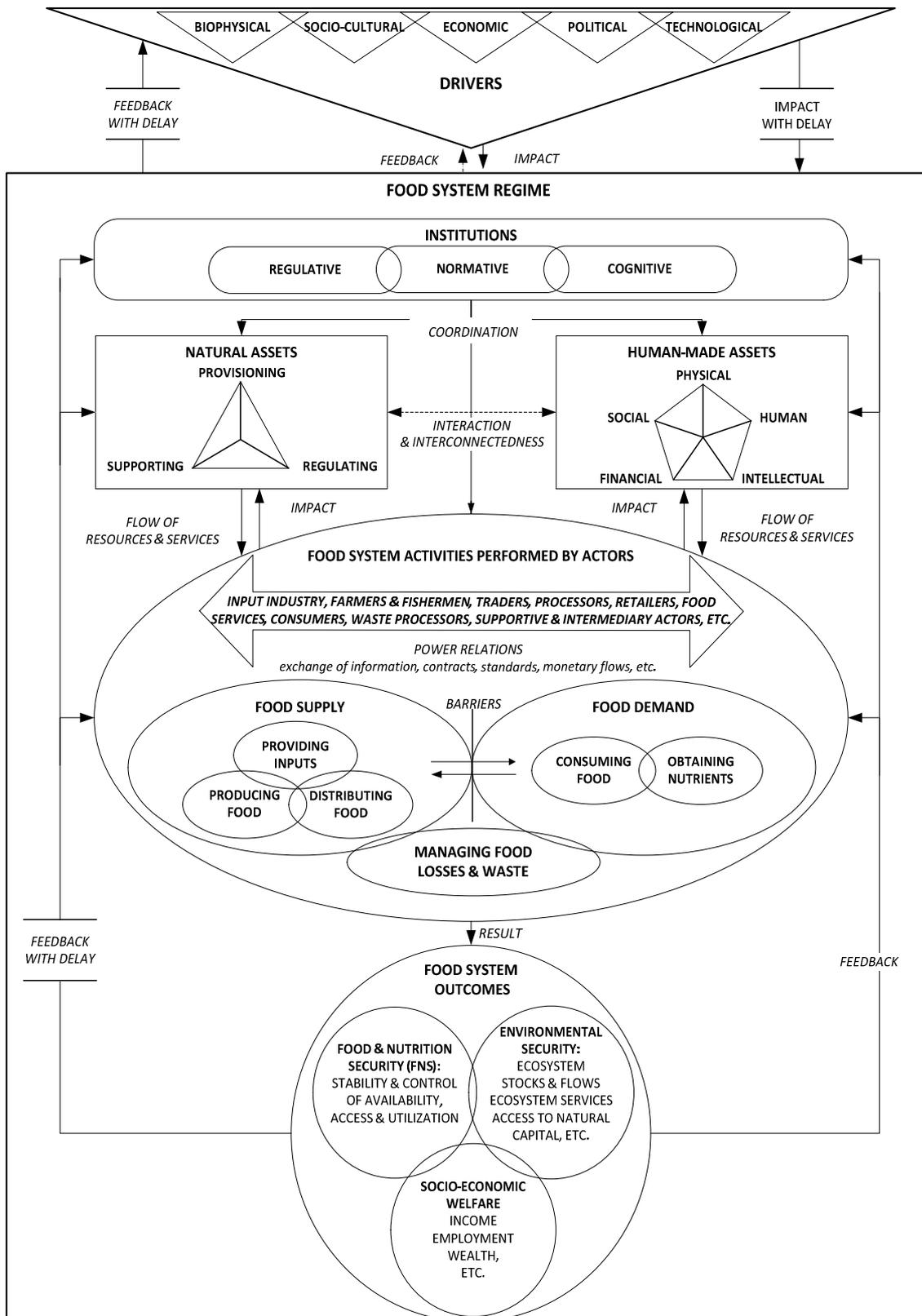

Figure 1: TRANSMANGO conceptual framework

It is important to notice that TRANSMANGO's recognition of the systemic nature of food makes any delineation of FNS system boundaries, whether sectoral or scalar, by definition arbitrary and disputable. TRANSMANGO dealt with these boundary issues through combining complementary methodological approaches. Working in synergy together, these methodologies enabled the TRANSMANGO team to probe the significance of FNS interrelations with other (sub-)systems. These include energy, transport, spatial planning, tax, educational and social welfare systems. Therefore, what cannot be overemphasised for policy-makers is the importance of enhancing the collaborative agency of a range of directly and indirectly involved stakeholders.

Awareness of the systemic nature of food and nutrition security (FNS) brings awareness of contemporary multi-faceted FNS vulnerabilities. These vulnerabilities have been analysed in TRANSMANGO from various theoretical and methodological perspectives.

Firstly, based on a media analysis, a *vulnerability matrix* was elaborated (**D2.5**, see **Figure 2**). The matrix covers ecological, social, economic, technological and political vulnerability components, applied various systemic perspectives (vulnerability of, to, from, what and for whom) and distinguishes between shorter (e.g. price volatility, food frauds) and longer (e.g. market concentration and soil fertility degradation) time horizons and feedback relations. This matrix graphically illustrates the variety and scale of food system vulnerabilities; three vulnerabilities (impoverishment; price levels and volatility; unfair/reduced agricultural support) are present in all five systemic perspectives and these could be prioritised for policy attention.

The second way in which FNS vulnerabilities were analysed in this study was through a multi-scalar thematic analysis (**D2.2; D2.4**), and a 'hotspot' analysis with a focus on pertinent systemic European FNS concerns such as food poverty, organic agriculture, genetically modified organisms, biofuels, and public procurement (**D5.2; D5.5**). Based on the Conceptual Framework (**D2.1**), we make use of the concept of system vulnerability by referring to its underlying notions: exposure, sensitivity and adaptive capacity. Policy responses should therefore attempt to either reduce the food system's exposure and sensitivity to drivers or increase the food system's adaptive capacities. Here, we illustrate the above reasoning with one example from the hotspot analysis, food and nutrition poverty. This analysis revealed how social fragmentation tendencies, worsened by progressive welfare reforms during the economic downturn, captured key vulnerability pathways affecting the stability of access to, and utilisation of food. The pathway follows the consequences of stagnating household incomes and other progressive social marginalisation processes (including physical mobility, and mental illness) which lead to loss of ability to earn sufficient wages and growing risk of food poverty, life style behaviour and personal and public health, which in turn reduces employment opportunities, and so on. Directing efforts towards the stabilisation of vulnerable groups' income would help in reducing exposure of the food system functions (and beyond), while monitoring and control of fruits and vegetables prices, compared to other food product categories, should become a key area of attention for reducing food systems' sensitivity to the reduced purchasing power of vulnerable consumers. Other actions directed towards increasing adaptive capacities include support for balanced family budget expenditure choices and encouraging food education and consumer awareness on the nutritional value of food.

TRANSMANGO Policy Recommendations Deliverable 7.1 – 7.2

Vulnerability factors	Vulnerable social groups	Food needs and preferences	Territories	Sectors/Supply chains	Food systems
Soil fertility degradation	👤		🌾 🏜️	🌾 🧈	🚜
Plant and animal diseases	👤		🌾	🌾 🐄 🍇 🧈 🧴 🐟	📦 🚜 🍽️
Extreme weather events	👤		🌾 ⛰️ 🏝️ 🏜️	🌾 🍇 🧴	🚜
Water shortages	👤		🌾 🏝️ 🏜️	🍇 🧈	🚜
Increasing pollutants spread	👤		🌾	🍇	🚜 📦 🍽️
Unsuitable technologies adoption		🌀 🌾 🏭 ✖️	🌾 🏜️	🌾 🐄 🍇 🧴 🐟	🚜 📦 🍽️
Impoverishment	👤 👤 👤 👤 👤 👤	✖️	⛰️ 🏙️	🐄 🐟	🚜 🍽️
Prices levels and volatility	👤 👤 👤 👤	✖️	🌾 🚜	🌾 🐄 🧈 🧴	🚜 📦 🛒 🍽️ 📜
Power/market concentration	👤	🌾 ✖️		🌾 🐄 🧈 🧴 🐟	📦 📦 🛒 📜 🚜
Unhealthy food commercials	👤 👤 👤			🐄 🐟	🍽️
Geopolitical tensions				🌾 🧈	📦 📜
Weakening of political action			🌾 ⛰️ 🚜		📜
Unfair/reduced agricultural support	👤	🌾 ✖️ 🏭	🌾 ⛰️	🌾 🐄 🐄 🧈 🧴 🐟	📜 🚜
Social welfare cuts	👤 👤 👤 👤	✖️	🏙️ ⛰️ 🏝️		🍽️ 📜
Accidental food contamination		🌾 ✖️ 🏭		🌾 🐄 🐄 🧈	📦 🛒 🍽️ 📦
Food frauds		🌾 🍷 ✖️ 🏭 🔬		🐄 🐄 🧈 🧴	📦 🛒 🍽️ 📦

LEGEND					
🟡 **ENVIRONMENTAL**	😊 Children Adolescents	✖️ Special Dietary Needs	🌾 Agricultural Areas	🌾 Grains and Tubers	📦 Import
🟡 **TECHNOLOGICAL**	👤 Elders	🌀 Local/Artisanal Chains	⛰️ Mountainous and Remote Areas	🐄 Meat	🚜 Farming
🔵 **SOCIO-ECONOMIC**	👤 Poor	🌾 Organic	🏙️ Suburbs	🧈 Milk&Dairy	📦 Processing
🟣 **POLICY**	👤 Migrants	🏭 Agroindustrial Products	🏝️ Islands	🐟 Fish	🛒 Distribution
🔴 **OTHER**	👤 Farmers	🥕 Vegan-Vegetarian	🏜️ Desertification-prone Areas	🧴 Vegetable Oil	🍽️ Consumption
		🔬 Religious Restrictions		🍇 Fruits&Veg	📜 Governance

Figure 2 TRANSMANGO vulnerability matrix

The third and final TRANSMANGO approach involved investigations of stakeholder perceptions of Europe's multi-faceted FNS vulnerabilities. These were then analysed with the help of 'fuzzy cognitive mapping' which inspired the elaboration of plausible imagined FNS futures in the form of scenarios (**D3.2; D5.3**). The four key scenarios which were developed are summarised in **Figure 3**. Chosen for their diversity from each other, each scenario reflects and highlights specific FNS vulnerability components and more or less confidence in Europe's socio-political, socio-technical and wider societal coping strategies. To take a closer look at the most pessimistic of the four scenarios, Fed Up Europe, key vulnerabilities include high levels of animal product, sugar and processed food consumption; manifold environmental degradation associated with unsustainable modes of food production; high levels of inequality; low levels of innovation; population growth; extreme concentration of market power; reinvigoration of free trade; and a crisis of resources. Although these scenarios are not probably, they are reasonable, based on our analysis and policy-makers should consider it prudent to test policy proposals in the context of these (or other) future food and nutrition security-focused scenarios.

Recommendation 2: Incorporate broad social justice aims into food policy-making

Scholars point, in their characterisation of global systems, at a growing segmentation of and division on what is considered 'normal' in the food system, the over-emphasis on market-oriented logics and the ongoing reshaping of formalised systems where rules and norms are set out. Such norms and standards are accountable to external authorities and corporate structures which are increasingly dominated by a limited number of multinational and global food conglomerates, characterised by a loss of national authority and public influence, lacking broader social justice aims and focused on narrow economic utilitarian concerns. Discourse is couched in technical language and solutions are identified as technological only. This is captured in the scholarly literature as 'rendering technical' or as a typical 'Solution-Fix model'.

Societal demands for a more encompassing framework are closely interwoven with food system dynamics and this is in various ways underpinned by TRANSMANGO findings drawing on the conceptual framework (**D2.1**), its Vulnerability Matrix (**D2.5**), the Delphi analysis undertaken among national and European food system actors (**D5.1**), the controversies and disputes revealed by European FNS hotspot analysis (**D5.5**), and stakeholder-led elaboration of food and nutrition security (FNS) scenarios (**D5.3; D6.3**0. The case-study analyses in varying FNS settings of Flanders, Latvia, Wales, Ireland, Italy, Spain, Finland, Netherlands and Tanzania (**D6.2**) provided further focus on practical normative issues. These addressed issues such as how to move towards more socially-inclusive food systems, how to make healthy food accessible and affordable for all, how to empower and emancipate both food producers and food consumers within globalising food regimes, how to establish more equitable and mutually beneficial urban-rural relations, and ultimately, how to save food provisioning for future generations. Together TRANSMANGO findings point to a broadly felt need to move beyond the utilitarianism of global capitalism. Therefore, serious and profound re-thinking and re-imagining of contemporary enacting of food democracy, including where to locate, ensure and enforce such issues in globalising food systems, represents a second crucial and urgent challenge for Europe's FNS policy and wider governance.

	Consumption Patterns	Environmental Degradation	Poverty and Economic Inequality	Social and Technical Innovation	Urban and Rural Population Dynamics	Power and Market Concentration	Trade Agreements	Resource Use
Fed up Europe	High animal products, high sugar/processed food (unhealthy meat eaters)	Biodiversity loss, water pollution, soil degradation etc. continued environmental decline	Low poverty high inequality – few are truly poor, but some are extremely rich	Low innovation, private sector driven – public and private sectors are inert, despite interest in change among a minority in the private sector	Increase in both urban and rural populations	Extreme concentration: several companies dominate the entire market worldwide	Free markets (more free trade agreements, removal of subsidisation)	Resource crisis
The Retrotopia	Low animal products, high sugar/processed food (unhealthy vegans and vegetarians)	Environmental degradation is reversed	Low poverty, low inequality	High innovation, public sector driven	Decrease in both urban and rural populations	Healthy competition exists in all sectors – significant role for SMEs	Protected markets (less free trade more subsidies)	Significant reduction in resource use/demand
The Protein Union	Meat consumption, low sugar/processed food – strong innovation on animal proteins, e.g. insects	Environment is stabilized but at lower levels than today	High poverty, low inequality – people have less assets but strong state support.	High innovation, public sector driven – the public sector stimulates innovation, but there is an important role for the private sector	Decrease in rural, increase in urban	Some sectors dominated by a few global players, others less concentrated	Protected markets (less free trade more subsidies)	Resource scarcity
The Price Of Health	Low animal products, low sugar/processed food (healthy vegans and vegetarians)	Environment is stabilized	High poverty, high inequality – incomes are low, but quality of life has been decoupled from income through other means of subsistence; the rich lead very different lives	High innovation, needs driven, bottom-up – local initiatives, local businesses and local governments	Increase in rural decrease in urban	Extreme decentralisation dominated by SMEs	Protected markets (less free trade more subsidies)	Significant reduction in resource use/demand

Figure 3 TRANSMANGO imagined future scenarios

The findings of TRANSMANGO resonate well with the global food movement that positions food as a human right. This builds on the PANTHER principle elaborated by FAO which states that decision making and policy responses to issues of food security should hinge on *P*articipation, *A*ccountability, *N*on-Discrimination, *T*ransparency, *H*uman Dignity, *E*mpowerment and the *R*ule of law.

Recommendation 3: Alleviate and mitigate persistent policy fragmentation

TRANSMANGO stresses that public policy making continues to be a key driver of Europe's food and nutrition security (FNS). The Delphi analysis incorporated the views of participants from public, private and civil society backgrounds, identified a range of general policy issues, weaknesses, concerns and neglected factors (**D5.1**). National and European vulnerability analyses provided additional insights on how public policy might interact in different ways with societal FNS concerns (**D2.3; D2.4**). Overall findings confirm the persistent tendency of public policy to fragment FNS into separate and stand-alone policy domains, such as agriculture, public health, spatial planning, and social welfare. Consequently, this policy fragmentation tendency clashes vehemently with the systemic features of FNS outlined above. Therefore, policy "*de-silo-ing*" is an absolute prerequisite for moving towards what food scholars call joined-up, comprehensive, consistent or coherent food policies.

Unfortunately, FNS is surrounded by 'wickedness', that is: strong disagreement around both problem definitions as well as best ways to solve current FNS problems. TRANSMANGO illustrates this wickedness by distinguishing various FNS discourses or narratives, each with its own problem definitions, solutions, advocates and societal roots (**D2.3**). At the same time, its findings also reveal some promising ongoing policy *de-siloing* attempts, especially at more local administrative levels. For instance, emerging urban food councils in various member states illustrates how comprehensive food policy-making is attracting growing attention among urban and regional policy makers, albeit because of problematic vulnerabilities and barriers (**D6.2**). These are, amongst others, related to limited experimental space within multi-level institutional settings and regulatory frameworks. For example, food trade regulations continue to hamper the public procurement initiatives of urban food councils as a specific contribution to place-sensitive FNS policies. Similarly, post-2020 Common Agricultural Policy reforms, including further greening plans and Pillar 1 (agriculture) and Pillar 2 (rural development) arrangements, may affect room for manoeuvre to *de-silo* policy at regional level. Similar types of fragmentation and a "stand-alone approach" are evident in relation to tax, public health and social welfare systems. In addition, positive examples can be found in recent urban food governance whereby there has been a proliferation of food partnerships across Europe, which are developing a holistic vision and action plan for food systems by demanding a cross-sector approach to overcome the problem of policy silos.

However, TRANSMANGO's findings also demonstrate that irrespective of actual multi-scalar institutional and regulatory tensions and barriers, progress can certainly be made in place-based alignment and the co-ordination of the interdependencies among FNS policy domains. These include social welfare, public health, food waste reduction and valorisation, urban and rural spatial planning, food education, etc. Therefore, multi-scalar combatting of persistent *policy-silo-ing* tendencies is thought to be a third policy challenge to make necessary progress towards FNS futures where sustainable food production and consumption will be accompanied with social inclusion and active food citizenship.

Recommendation 4: Stimulate and substantiate integrated capacity-building

Food and nutrition security (FNS) hinges on tackling its contemporary manifold vulnerabilities in more holistic and integrative ways. TRANSMANGO's findings stress that integrated capacity-building is certainly not the exclusive domain of public policy-making. In contrast, TRANSMANGO's findings suggest that this may be increasingly driven by new forms of cross-sectoral and chain-based cooperation that involve specific combinations of public, private and civil actors. This on-going re-shuffling of responsibilities between FNS stakeholders is often characterised by moving from governing (state-led policy making) towards governance, characterised by a much more fuzzy distribution of responsibilities. TRANSMANGO addressed this move towards FNS governance in various ways. Its use of the Delphi analysis (**D5.1**), its media analysis (**D2.3**), its multi-scalar scenario elaboration (**D5.3; D6.3**) and its case-study analyses in various FNS settings (**D6.2; D6.4**) represented   an active involvement and mobilisation of stakeholders with different experiences as well as from various backgrounds.

Taken together TRANSMANGO's multi-method approach allows us to draw following general conclusions:

1) A growing amount of governance arrangements and food-related networks that perform FNS in different ways have emerged that together contribute positively to integrative capacity building in relation to FNS concerns;
2) The proliferation in governance arrangements requires more attentive public control, appraisal and assessment of their accompanying integrative capacity building claims and promises.

TRANSMANGO highlights private- and civil sector-led responses to food poverty alleviation, healthy food provisioning, food waste reduction, food community development, urban food councils and peri-urban land movements. However, food policy literature interlinks the significance of these food-related innovations to fair trade, and other food labelling initiatives with sustainability and broader FNS claims. This literature highlights a proliferation of corporate social responsibility, social enterprises or citizen/consumer-led FNS initiatives that cannot be isolated from global expansion of neo-liberal state policies.

The prospects of food-related assemblages accompanying new alliances, partnerships and forms of cooperation were unravelled in TRANSMANGO with the help of following redesign principles that cover different aspects of integrative capacity building: re-enforcing food entitlements of traditional and newly emerging groups, re-connecting food system sustainability and public health, re-linking food systems that foster urban-rural synergies, re-balancing social and technological engineering and re-thinking resilience building.

As such, ongoing proliferation of novel FNS governance arrangements raises questions regarding what food scholars call the 'politics of information and transparency', defined as '*the products on*, *the processing, the use, and the flow of, as well as the access to and the control over information that is increasingly becoming vital in contemporary food politics'* (Mol, 2015, p. 156)*.* Different types of 'politics of information and transparency' issues are reflected in our fourth key policy concern, that is, the ways and the extent to which governance arrangements succeed in enhancing integrative capacity building. As further emphasised by TRANSMANGO findings, this definitely involves more comprehensive insights on and comparison of 'softer' impacts. However, it may be difficult to discern

the extent to which awareness raising, commitment creating, enhancing learning skills, contributing to behavioural change and facilitating social cohesion are being established as crucial components of wider FNS governance, necessitating the development, by policy-makers, of more sophisticated methods for assessing integrative capacity building.

Recommendation 5: Recognise and embrace Europe's diverse food contexts

TRANSMANGO revealed some of Europe's diversifying food landscapes which differ in their place-specific outcomes of globalising food systems due to the specificity of available natural and human resources, food cultures, food chain characteristics, urban-rural dynamics, manifestations of policy de-siloing, cross-sectoral and chain-based cooperation, and manifold governance arrangements. In short, it revealed food contexts that differ significantly in terms of food and nutrition security (FNS) vulnerability profiles and meaningful governance features. For both reasons it is thought to be crucial to cherish this diversity. Firstly, diversity might contribute to overall resilience of Europe's FNS, understood in its wider definition of the ability to 'bounce back', i.e. overcoming systemic shocks, and to 'bounce forward', i.e. realising substantial systemic change. This second component of resilience in particular assumes a certain heterogeneity of learning environments that actively explore, compare, share and inspire multiple imaginable FNS futures. Secondly, although closely related to the preceding point, the cherishing of diverse food landscapes may be helpful to avoid old binaries such as global/local, smallholder/agri-industrial, intensive/eco-agriculture, food producer/food consumer, consumer/citizen; state-led/market-led, technological/social engineering, etc. Overall TRANSMANGO's findings suggest that Europe's FNS will be grounded in ongoing and continuous criss-crossing or assembling and reassembling of such binaries, which opens doors for a much broader spectrum of unforeseeable, unpredictable and place-specific FNS futures. Hence, there might be a lot to gain when public policy will embrace Europe's diverse food landscapes openly and actively by accepting 'alternative' bodies of knowledge and by welcoming these as collaborative learning environments, interesting nurseries and living labs with key roles in the co-shaping of Europe's FNS future(s).

Active embracing of diverse food landscapes may be facilitated in many ways. For instance, TRANSMANGO's inventory of the current interplay between emerging cross-sectoral and chain-based cooperation and wider policy settings revealed an array of concrete stakeholder activities, ideas and suggestions about how to move forwards to place-sensitive FNS policy making (see **Annex 1**). In comparing two similar case study initiatives (Italian peri-urban land movement and Spanish peri-urban agricultural initiatives) it is clear that while there are some similarities in their policy expectations (Italy: Create market opportunities and physical spaces for local products; Spain: Develop a business incubator adapted to the agri-food sector that helps to develop projects inspired by social and solidarity-based economy and sustainability), the diversity of their particular contexts resulted in mostly different and place-specific recommendations. For example, the Italian case advocated for the mapping of existing land to identify allotments which would be allocated to new farmers while the Spanish case made no recommendations of this sort. Correspondingly, the Spanish case recommended the development of advisory and training services for new farmers, but this was not identified as a priority in the Italian case. This example emphasises the importance of research such as TRANSMANGO's which examined diverging food contexts across Europe in the pursuit of developing food policy for FNS resilience.

TRANSMANGO further experimented with the use of multi-scalar scenario development as a learning tool. Based on the same fuzzy cognitive mapping approach that resulted in multiple imaginable European FNS futures, 'micro' scenarios were also elaborated (**D6.3**). As conjunctions between, on the one hand, wider socio-political and socio-technological dynamics as reflected in diversifying European scenarios and, on the other, ongoing practical responses to particular FNS vulnerabilities in different settings, a total of twenty-seven scenarios were imagined around the key case-study issues as introduced before. Differing degrees of optimism of these 'micro' scenarios are reflected in names such as *Solidarity in Half*, *Protein Innovative Finland*, *Wales Wails*, *Doom to Bloom*, *Victory of Apathy,* and *Slaves and Enclaves* (**D3.4**)*.* More generally this set of scenarios represents place-sensitive FNS pathways under varying conditions (**D6.1; D6.2**). Also these TRANSMANGO outcomes highlight Europe's diversity in food landscapes, this time in terms of how emerging novel governance arrangements might respond to more or less favourable European FNS futures.

TRANSMANGO's explorative quantitative modelling, based on modifying the existing Global Biosphere Management Model (GLOBIOM) was in line with some of the key features of European FNS scenarios (**D4.1; D4.2; D4.3**). This process had the objective of stimulating and facilitating collaborative learning, experimenting and strategic reflection on how to build upon and explore diverse food contexts, paying particular attention to possible quantification of the spatial impacts of (specific elements of) these scenarios.

Finally, a European workshop had equal sharing, learning and reflection objectives by presenting and discussing TRANSMANGO's distinction of different manifestations of meaningful practice-led FNS redesign in relation to a set of principle food system challenges (**D6.4; D3.4**). Inspired by TRANSMANGO's overall theorising of FNS, **Figure 4** was used to introduce these eight challenges. During this workshop, participants with various backgrounds, discussed and commented on the significance and implications of ongoing FNS redesign in relation to the variety of Europe's food system challenges and future (transition) pathways. All in all, participants' views on these topics were diverse and diffuse (**D5.4**).

Summary

- Recommendation 1: Address the multi-faceted nature of contemporary food and nutrition security vulnerabilities by developing a comprehensive and integrated food policy for Europe which fully recognises its underlying systems-wide nature, features and challenges.
    - Food policy responses should be designed at a systems level and policy-makers should recognise that food systems have no national boundaries
    - Ensuring long term food and nutrition security in the face of food system change brought by investment, expansion, innovation and competition should become a key area of attention for policy-makers
    - The importance of enhancing the collaborative agency of a range of directly and indirectly involved stakeholders must be recognised by policy-makers
    - The variety and scale of food system vulnerabilities must be acknowledged and addressed, beginning first with those vulnerabilities which are framed as such by the widest range of perspectives
    - Policy responses should have the goals of either reducing a food system's exposure and sensitivity to vulnerabilities or increase a food system's adaptive capacities
    - Food poverty should be addressed through a range of policy measures which aim to tackle instability of incomes, affordability of healthy foods
    - Policy efforts should be directed towards improving the level of access which vulnerable groups have to healthy diets, and their ability to fully utilize foods therein
    - Policy proposals should be tested in the context of a variety of plausible future food scenarios

Figure 4 TRANSMANGO's overall theorising of eight key challenges for food and nutrition security
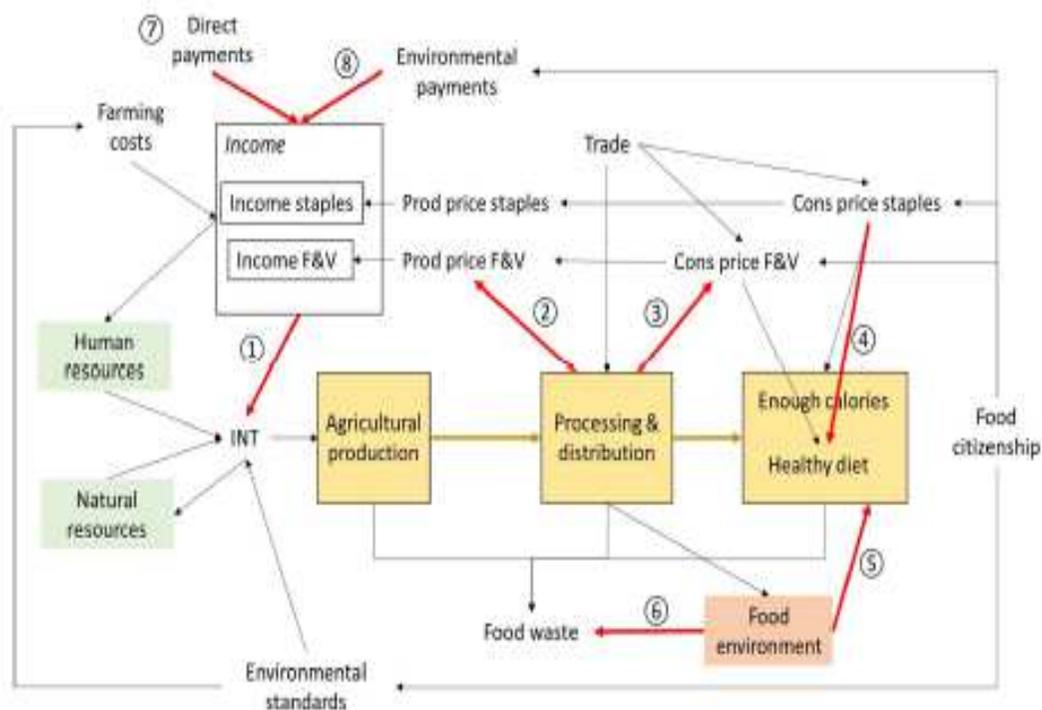
1. Farmers intensify both when income goes up (profit) and goes down (survival)
2. Market power to farmers
3. Market power to consumers / retail business model F&V margin
4. Cheap staples good for calories, bad for diet
5. Food environment doesn't enable healthy diets sufficiently
6. Food environment doesn't sufficiently prevent waste
7. Unequal direct payments, primarily to large staple producers
8. Environmental payments do not sufficiently cover cost increases

- Recommendation 2: Incorporate broad social justice aims into food policy-making
    - Policy actions need to be grounded in a re-thinking of how contemporary food democracy should be enacted
    - Although technologies and markets may offer substantial opportunities, policy responses for food and nutrition security should concentrate on social engagement and commitment.
    - The social and human rights priority of food must be re-incorporated into public policy-making, recognising cultural differences in determining what is good and adequate food.
- Recommendation 3: Alleviate and mitigate persistent policy fragmentation
    - Policy *de-fragmentation* has to take place at multiple scales (Global, European, National , Regional, Local)
    - This requires more active and direct involvement of urban policy actors
    - As policy *desiloing* is not about straightforward and simple recipes, experimental space will be one of the crucial conditions to make progress in this respect.
    - Therefore, developing cross-cutting policy is an absolute prerequisite for moving towards what food scholars call joined-up, comprehensive, consistent or coherent food policies.
- Recommendation 4: Stimulate and substantiate integrated capacity building
    - Public policy making should nurture the agency that is displayed in the emergence of various food networks where FNS may be practiced in different ways
    - Policy making bodies should endeavour to learn from these innovations
    - Emerging food networks show that socio-cultural-economic and historical contexts are important to take into account, as should be the case in policy development
    - Food policy-making requires more sophisticated methods for assessing and comparing integrative capacity building
- Recommendation 5: Recognise and embrace Europe's diverse food contexts
    - Diverse food landscapes may contribute positively to overall resilience of FNS in Europe and as such policy should be made while mindful of embracing this diversity
    - Approach current diversity in food landscapes as living labs for collective learning, exploring and practicing; owing, enabling and pushing integrative capacity building within place-specific manifestations and assemblages of FNS redesign
    - Make exchange of thoughts, practices and performances between diverging food contexts a crucial component of food policy making

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Annex 1. Policy lessons from TRANSMANGO's 16 'local' cases

Dutch Urban Food Initiatives

Positive Experiences	Barriers	Expectations
- A rapidly growing urban administrative interest in urban food policy perspectives; - The launching of a national Knowledge Platform for urban food initiatives, policies and visioning; - A growing number of public policy attempts to create space for urban food initiatives, e.g. through establishing central contact points for civil society- and private company-led initiatives; - A broad spectrum of practice-led urban food initiatives that joins actors with diverse sectoral and professional backgrounds, covering public health and education, social housing, environmental movements, urban architecture, multi-level policy bodies and –above- all- a large variety of practitioners; - Increasingly collaborative attempts to elaborate, promote and implement shared UA visions;	- Lack of transparency in policy responsibility for and political leadership around urban food visioning; - As being part of a local/regional policy domain in development, urban food policy often still lacks a robust representation in municipal councils; - Limited and lack of continuity in financial support measures through austerity measures and the dominance of short-term project approaches; - Co-existence of contrasting and conflicting FNS policy discourses building upon rather different sustainability paradigms (*eco-economy* versus *bio-based economy* thinking and acting); - Underrepresentation of stronger economic partners in current UA activities; - Still relatively weakly developed new urban-rural linkages; - Difficulty to mobilize and involve also most vulnerable FNS groups; - Still heavy dependencies on volunteers, crowd funding and other more incidental, project-based financial support mechanism; - Urban food initiatives are sometimes threatened by symbolic value annexation problems by agro-industrial interests;	- Set next steps towards policy de-siloing through novel policy integration-, accountability- and evaluation approaches; - Establish Urban Food Councils that are being 'fed' and stimulated by concrete initiatives of local/regional multi-stakeholder food hubs; - Demonstrate concrete public policy commitment, e.g. by public procurement initiatives; - Introduce CAP-reforms that explicitly explore food related rural-urban synergy potentials; - Oppose negative cross-sectoral externalization tendencies and embrace positive cross-sectoral externalities by maximizing multifunctional space- and resource use opportunities; - Develop socially inclusive urban food provisioning through active municipal leadership around the counterbalancing of growing social injustice concerns and problems; - Make urban agriculture and urban food provisioning less elitist and explore their mitigation potentials in relation to strongly deteriorating social security conditions; - Facilitate and stimulate Local /Regional food 'hubs' hinging on consumer-producer interaction, food engagement and food education and 'smart' meeting places; - Create regional knowledge 'hubs' that connect science, technology and education around sustainable urban food provisioning; - Experiment with flexible spatial planning regulations that also allow for temporal urban food initiatives; - Acknowledge the relevance of experimental space for urban food provisioning in prevailing multi-level regulatory frameworks; - Introduce 'seed money' funds for novel, creative and inspiring urban food initiatives; - Work on place-sensitive and specific indicators for 'sustainable entrepreneurship', also with the objective to oppose 'green washing' tendencies; - Actively facilitate, stimulate and coordinate public-private investments in circular economy inspired high-tech urban food provisioning;

Dutch Food Bank Initiatives

Positive Experiences	Barriers	Expectations
• As civil-society-led responses to public policy neglect of food poverty concerns in Dutch society, Foodbanks are by definition impossible to associate with positive policy de-siloing experiences; • As new partnerships between Civil Society and Corporate businesses, Foodbanks succeed to interlink food poverty alleviation with food-waste reduction; • A rather flexible and effective food poverty alleviation through its rootedness in civil society movements and rather successful appeals to corporate social responsibility; • By extending their relations with practice-led urban food initiatives some Food Banks succeed to broaden and deepen their FNS approach; • By cooperation at national level Dutch Food Bank launched various food surplus processing projects that resulted, amongst others, in positive contributions to the valorisation of food waste and the nutritional quality of Food Bank assortments;	• Food Banks are symbols of public policy incapacity and unwillingness to take responsibility for FNS vulnerable groups in Dutch society; • National public policy shows an astonishing lack of attention for the root causes and societal implications of growing food poverty problems in Dutch society; • A serious corrosion of overall public bodies ability to combat food poverty after a decade of austerity measures combined with de-centralization tendencies in Dutch Social Welfare systems; • Food safety accountability regulation that continue to frustrate retailers to involve full heartedly in surplus food provisioning to Food Banks; • Surplus food dependent food poverty alleviation leaves little space for public health related FNS concerns; • Growing threats of loss of food surplus provisioning by retailers through competition with emerging high-tech circular economy inspired food-waste reduction initiatives;	• Above all: make Food Banks as quick as possible redundant by more social inclusive FNS public policies at different levels; • Public policy measures that give food poverty alleviation a key role in National Social Welfare and Public Health System; • Towards 'real' pricing inspired food policies that do succeed to combat and reduce the multi-faceted societal (and environmental) costs of food poverty; • Active facilitation of longer term cooperation with retailers and food processors to further improve surplus food processing, distribution and logistics to the benefit of Dutch food poor; • Active facilitation of more transparent, workable and common sense based food safety regulations to the benefit of food surplus distribution, processing and logistics; • Active facilitation of current attempts to create a more sophisticated logistical system for exchanging food surplus among Dutch Food Banks with the ambition to align overall surplus supply and demand as good as possible; •

Finnish Home Emergency Preparedness (HEP)

Positive Experiences	Barriers	Expectations
• Nationally increased HEP-activities are efficiently promoted and coordinated • Large variety of NGO's is committed to HEP, including youth organizations. • Increased positive media publicity • In HEP many of the FNS vulnerabilities are taken seriously and scaled in a realistic way to construct a continuous preparedness system from national to individual level by using NGO's as civil society actors to mediate the goals and practices.	• Vertically emergency preparedness is national activity and the EU has no plan or structures to guide the member countries in the case of disturbances. • There are indirect, mainly economically motivated connections between national preparedness activities and EU-level policies. In the context of EU-level policies environmental or climate concerns - general in national context - totally disappear and the emphasis is in economics including international commercial policies and agricultural policies. This indicates more siloing than de-siloing. • Horizontally it is difficult to get the HEP-message to the focus groups. • The challenge is to reach those people, who are not involved in the NGO's, and who are not aware or interested in HEP. • Finns seem to have strong, even unrealistic trust to public sector performance in case of emergency. • NGO's seldom collaborate with each other on the field of HEP. The institutional role of the SPEK as a coordinator is strong and the member NGO's of the KOVA-Committee expect the SPEK to take a strong lead. There is a weak balance between efficiency and too strong lead. • -There are different kinds of groups with special needs concerning communication and education of the HEP. Urban dwellers are mentioned to be more vulnerable under the present circumstances than rural people are. In addition, socially vulnerable people (i.e. the poor, people with mental problems or problems with substance abuse) as well as singe-person households and immigrants who don't know local culture and course of action during disturbances are mentioned to be vulnerable and difficult groups to reach.	• Ideas of home emergency preparedness should be included in city and community planning. This means e.g. more planned areas for urban agriculture and gardening; edible plants, berries and fruit trees to public parks; possibilities to keep poultry in cities; public fireplaces or barbecues in case of power cuts; and better food storages as well as terrariums for breeding insects and dryers for preserving mushrooms and other natural products to flats and/or housing corporations. • Many of above mentioned things require new guidelines for planning or building, if not law reforms • The HEP-activities are based on voluntary work in NGO's. NGO's surely have limited resources for promoting HEP, but they did not particularly emphasise it. That holds true also for the national institutional framework for coordinating HEP.

Finnish Public Catering

Positive Experiences	Barriers	Expectations
• The nutritional quality of public meals is good and has positive health impacts. • Potential to reduce food waste by delivering or selling surplus food to the community members of the school district • Through procurements, caterers can have an impact on regional economics and the environment by preferring local and sustainable tender • School lunches may be considered an income transfer and thus coincide with the universal welfare state ideology. • The foundation of modern public catering is in health and nutrition promotion and education • Public catering includes huge potentials for sustainable FNS: 1) social and health related (poverty reduction, dietetic education and public health approach), 2) ecological (local food and focus on sustainability in public procurement), 3) economic (impact on regional economy and the maintaining of a vital countryside), and 4) cultural (local traditions and cuisines, including aspects of food sovereignty and food democracy)	• Various national policies stress the importance of sustainability in public procurements. Yet, there are barriers to procure locally: Public procurement regulation states that "public contracts shall be awarded based on either the most economically advantageous tender or the lowest price." • Finnish Food Safety Authority has eased the restrictions of redistribution of surplus food. Yet, the process is still highly supervised.	• The new legislature allowing caterers to prefer quality over price in procurement. • Easing regulations in donating or otherwise redistributing surplus food

Flemish Voedselteams

Positive Experiences	Barriers	Expectations

• Active connection of different themes FNS like health, environment and 'fair' incomes for farmers (resilience) through the theme of local food
• Subsidies from government support both general activities as well as political activities of Voedselteams + growing political attention towards such SFSCs
• Mostly focused on environmental issues and health connected to agriculture
• Increasing amount of similar initiatives aiming for access to healthy and sustainable food. (sometimes commercial like Hello Fresh)
• Increasing transparency in food chains through e.g. participatory guarantee system and more social exchange between farmers and consumers
• Increasing social cohesion around food through e.g. individual involvement of consumers
• Contributing to a learning process of farmers by facilitating communication among them
	• Economies of scale and externalisation of negative externalities keep prices in mainstream system low, creating strong competition for initiatives like Voedselteams
	• No policy supports currently in place to negate causes of unsustainable diets such and correspondingly, the relatively higher price of healthy foods
	• Food Safety policies not well adapted to small scale initiatives like Voedselteams creating possible future barriers for the further existence of Voedselteams.
	• Also difficulties for small-scale farmers to access capital and markets
	• Difficulty to involve vulnerable FNS groups
	• Lack of measures to proof claims of sustainability of the system (LCA, social added value, ..)
	• Heavy dependencies on volunteers, and subsidies;
	• Low bargaining power of local small-scale farmers towards more mainstream bodies.
	• Stagnating demand and changes in demand do not provide a constant source of income for farmers.
	• Growing importance of SFSCs can also increase competition between them
	• Producers who engage in mainstream food chains also lack political supports to protect them from the power imbalance which exists between them and retailers, as well as from competition with freely available cheaper imported foods
	• Low demand in absolute terms.
	• More financial stability and absolute income is needed to be a real opportunity for farmers. For this, reliance on subsidies needs to be decreased
	• Continuity of demand is a problem as demand is stagnating
	• Relatively little inclusion of social minorities. Stronger focus on young people, immigrants and lower socio-economic classes is needed
	• There is a need for a professionalization of the transport and depot system.
		• Introduce educational reforms to better embed the topics of healthy diets, cooking skills and sustainable food systems into curricula
		• Focus on eating patterns and health. Not just appeal to people that are already aware and that can cook very well
		• Focus on financial independence and performance instead of increasing subsidies as subsidies also decrease resilience and create unfair competition towards other SFSCs
		• Create policies that facilitate the procurement of more sustainable and healthy food.
		• Facilitate the creation of networks to assist in sustainable food system advocacy work -> Work together with similar organizations on:
		  o Sharing of knowledge
		  o External communication
		  o Lobbying
		• Create advocacy bodies like the Farmers' forum
		  o Sharing of knowledge
		  o Increase bargaining power
		  o Supporting farmers in financing, access to land, etcetera
		• Improve logistical system
		  o Create food hubs
		  o Facilitate innovations in logistical systems
		• Put in place mechanisms to decrease reliance on volunteers (changes in transportation and depot system?)
		• Further establish the Participatory Guarantee System to increase transparency, increase sustainability, increase trust, increase interactions between farmers and consumers
		• Develop policies for re-balancing power relations between supermarkets and primary producers
		• Finding other markets: restaurants, public organizations, companies. More flexibility needed towards these clients
		• Simplify the transaction model:
		  o Welcome more diversity
		  o Lower threshold to enter
		  o Larger depots with social activities
		  o Focus more on flexibility
		  o Appeal to more diverse groups by allowing for more diversity
		• Transparency costs – guarantee minimum price: Provide all producers with a clear vision on their production costs and a clear salary. In this way *Voedselteams* can offer a more attractive alternative for farmers than conventional markets (like supermarkets e.g.)

Community Supported Agriculture in Flanders

Positive Experiences	Barriers	Expectations
• CSA farming is – in a rather short time – being recognized as a farming system, both by local and regional governments.	Despite the fact that policy makers seem to recognize the added value of CSA, specific measures to support CSA lack. We illustrate this with some examples. • Land access. Land is the key threshold for farming in Flanders. For CSA farmers is remains hard to compete with conventional farmers on land. • Social perspectives. CSA has potential for marginalized groups to become part of a local community and simultaneously enhance/ improve food-related habits (e.g. eat fresh unprocessed food). However as CSA is based on a fair food price, this group often can't afford and public intervention would be needed.	• Overall comment. Bridge the gap between farmers – from conventional to CSA – and stimulate communication and interaction (learning across farming systems) • Land issue. Rethink the use of public land and fallow land, taking into account the potential of CSA • Support pilots that enhance the integration of marginalized people into CSA • Support the research on the added value of CSA in order to help these systems to improve based on evidence.
• CSA inherently contributes to communication between consumers and producers, with mutual respect as a consequence • The risk sharing approach tackles one of the key shortcomings of the current food system	• Processing is almost non-existent in this system. Cooking skills and time are required to be part of the system. People that lack one of these, are excluded from the system • In urban areas, producers and consumers easily find each other. In rural areas, starting a CSA seems to be more difficult. • The system only allows consumers to buy the food from the field, which means that many basic ingredients are not included in the supply	• Open the dialogue with other stakeholders in the chain and discuss how this gap in the system – processing, picking, and limited supply - could be tackled without touching on the basic principles of the system. • Investigate how the risk sharing principles of CSA can be applied in other farming systems.

Italian Food Assistance Practices

Positive Experiences	Barriers	Expectations
• As a charity-based response to food poverty led by CSOs, practices of food assistance are themselves symbols of lack of and attempt of policy de-siloing • Caritas model of Emporia of Solidarity has been given the merit of involving a broad range of public and private actors in the provision of a service which none of them could have offered separately; • Creation of MIROD network, a project led by Caritas and Tuscany Region, aiming at creating a common database of available structures and services; • Surplus food redistribution through charitable food assistance has required building collaborative partnerships both between CSOs and corporate actors, and within the network of CSOs: collaboration with local businesses and public institutions has proved useful for achieving specific objectives (e.g. a more diversified supply).	• Food poverty in Italy is not really perceived as an issue to address at the national policy level, although several alarming, recent statistics indicate it as a growing problem; • Even if really committed policy actors were to engage in food poverty alleviation, they seem to lack the capacity to reach those in need (see FEAD and its longstanding reliance on charitable structures); • Cross-sectoral lack of knowledge on vulnerable groups and root causes of vulnerability; • Budget cuts and traditional lack of a precise regulatory framework for social services, engendering further fragmentation and regional differences. • A new law on food waste recovery has been passed in 2016, reinforcing the link between food waste reduction and food poverty alleviation; • Retailer- (and profit-) based food waste reduction activities might endanger the provision of surplus food for charities; • Cooperation based on personal relationships might put at risk the long-term duration of partnerships; • More or less formalised relationships between regional/ provincial/ municipal social services and Caritas; • Agreement between local (fruits) producers and the regional agency for payments in agriculture for surplus distribution to CSOs. It is the only direct connection detected between the Regional Agricultural Administration and food assistance; • The EU Russia sanctions policy has determined a huge supply of fresh food for CSOs in the network but it still remains a threaten for the whole food sector.	• Official monitoring and reliable food-related statistics are needed, requiring the joint effort of all the policy sectors affected (social/welfare, labour, health, food and agriculture, education, environment); • Researchers should actively commit as intermediary between different sectors and to nurture a debate on the right to food; • Education strategies should be directed to the entire population and should address nutrition, dietary and consumption behaviours, with a focus on the environmental sustainability of food practices. • CSOs should encourage and engage in coordinated actions for the implementation of a shared communication strategy on general and food poverty; • A single platform to share data and information from all the relevant stakeholders is desirable as starting point for a long-term strategy; • Local level partnerships between businesses and CSOs are encouraged to address urgent needs of surplus food for distribution to the needy;

Italian peri-urban land movement

Positive Experiences	Barriers	Expectations
• An urban administrative interest in farmland management policies with farmers involvement • A combination of interventions at various administrative levels (Municipality, Province, Regional) for the definition of tenders assigning land units • Attention to soil use and consumption at national level, including a new legislation for land assignments to (young, in principle) farmers, despite controversial in implementation • The mobilisation was able to gather actors with diverse backgrounds, covering wannabe farmers, existing farms, environmental movements, urban planning professionals, organic sector. Thus, the 'access to land mobilisation' agenda reflected the variety of stakes converging in the movement	• Lack of transparency in policy responsibility for food-related matters, scarce coordination between different bodies and limited urban food visioning • High dependence on administrators' personal commitment and erratic prioritisation at policy and administrative levels • Limited financial support, and consequent lack of continuity of supportive measures, due to, austerity measures and frequent political changes; • Need to assist the new farms after the assignments because of the various technical and organizational problems to face for start up • Lack of continuity in policy dialogue between Local Administrations and farmers' and social movements • Different visions among activists on the kind of relation they should have with local authorities and political power, mostly on tactical aspects • Instability of young farmers' commitment within some of the cooperatives, due to the long time required to set up a farm and start making some profits	• Mapping the existing public lands to make an inventory of available allotments that could potentially be given to new farmers through dedicated tenders • Strengthening the existing "conference of services", and moving towards the creation of an urban food policy round table at the metropolitan level and maintaining permanent consultations with stakeholders • Establishing a fund for farm loans • Developing information and data platforms (GIS, portals, …) • Create market opportunities and physical market spaces for local products • Creation of a brand for the roman agricultural products, which is now non existent

Irish Food Policy Council (CFPC)

Positive Experiences	Barriers	Expectations
• A key goal of CFPC is to instigate more integrated planning for sustainable food systems through, amongst other things, encouraging policy de-siloing • Cork has a strong and well established mainstream and alternative food industry with much consumer engagement with short food supply chains, especially farmers' markets. Alternative and more sustainable food activities in Cork are supported by organisations such as the Cork Chamber of Commerce and the West Cork Fuchsia brand • There is evidence of some cross-sectoral cooperation in support of CFPC through the provision of human and financial resources both at the organisation's outset and on an ongoing ad hoc basis	• Lack of cross-system thinking resulting in food falling between the stools of various governmental departments and a lack of integrated food system planning • Food system issues and connections (healthy diets, environmentally friendly agri-food production) are either not recognised, not understood or not prioritised resulting in a lack of political will to address challenges • An imbalance of power with too much control resting in the hands of multi-national corporations, and insufficient political leadership to support sustainable food systems • Agricultural policy which is myopically focused on livestock, productivism and export-orientation. There is a lack of opportunity for livestock producers to diversify and the agri-food industry is vulnerable to external shocks • CFPC's operations themselves are hindered by the lack of provision of resources • There are several policy barriers to sustainable producer livelihoods, especially for small-scale producers namely over-regulation by food safety bodies, less access to capital and greater difficulty in accessing the market • Producers who engage in mainstream food chains also lack political supports to protect them from the power imbalance which exists between them and retailers, as well as from competition with freely available cheaper imported foods • No policy supports currently in place to negate causes of un-nutritious consumer diets such as over-availability of cheap poor quality (often imported) food, and correspondingly, the relatively higher price of healthy foods	• Reorient political approach towards strong national and supra-national governance which supports self-reliance and sustainability through integrated policies and strategic planning • Demonstrate concrete commitment to a diversification of agri-food production • Introduce educational reforms to greater embed the topics of healthy diets, cooking skills and sustainable food systems into curricula • Facilitate the creation of impactful research which could inform or encourage the creation of more sustainable food systems • Facilitate alternative means for food to reach consumers by short-circuiting existing conventional food chains for greater economic and environmental sustainability e.g. introduce legislation to support public procurement for sustainable food • Engage with the Health Service Executive to emphasise the connections between food, food nutrition and food system education, and mental and physical health • Engage with advocacy bodies such as CFPC • Facilitate the creation of networks to assist in sustainable food system advocacy work • Develop policies for re-balancing power relations between supermarkets and primary producers • Facilitate the development of private procurement policies which emphasise the use of food derived from a more sustainable system • Work to reduce the production of 'surplus' food, as well as facilitating the repurposing of said surplus food, thus reducing food waste

Irish surplus food redistribution initiative

Positive Experiences	Barriers	Expectations
• Presence of Minister of Social Protection at two different launches is evidence of some recognition of the issues BFI addresses as being cross-sectoral (i.e. not just about the environmental impact of food waste) but no real engagement has occurred with respect to the social welfare issues which BFI addresses • As a civil-society surplus food redistribution organisation, BFI is by its very nature evidence of a lack of policy de-siloing • Led by steering group which is made up of members from a range of backgrounds • Connects food businesses and producers with charities and has been successful in engaging large scale operators who traditionally are difficult to involve in such initiatives • Have had some engagement with Government ministers (attending launches) • Have received some support, financial and otherwise from a range of non-state, semi-state and state bodies, the latter at local, national and supra-national level	• Have failed to be provided with effective and sufficient support, financial or otherwise, from top-level governance e.g. no engagement whatsoever from the Dept. of Agriculture or Teagasc (the Irish Food and Agriculture Development Authority) despite direct requests and a need for funding. It is posited that the reason for this is that responsibility for the issues relating to BFI's work falls between three stools (Department of Social Protection; Department of the Environment; and Department of Agriculture) • Fails to address the stability element of food and nutrition security by focusing on treating the symptom of food poverty rather than attempting to encourage leadership to address its root causes, which are ever-present • Perpetuates corporate food system practices (which contribute to food poverty) by providing an outlet for their surplus food, and a means for them to satisfy superficial CSR commitments and to gain attendant reputational benefits • Hesitance among some large food companies to engage for fear of issues of liability arising in relation to food handling and food safety • Does not work to address power distribution in households where weaker members (often women and children) are less likely to achieve full utilization of food donations	• Recognise the need for a coordinated strategy to deal with the root causes of food poverty and its affects and work to develop integrated responses to these problems • Assume responsibility for emergency food distribution and surplus food redistribution in Ireland by taking charge of the operations, networks and infrastructures BFI has put in place • Facilitate the creation of synergies and strategic partnerships with relevant state agencies such as the Food Safety Authority of Ireland and Teagasc (could work with the latter to gather surplus food for donation through gleaning) • Enact legislation which bans the dumping of surplus food, in favour of redistribution, as has recently occurred in France • Develop a 'Good Samaritan' Act which absolves food donor organisations of responsibility for liability issues to encourage more companies to engage with BFI

Latvian School Food Provisioning

Positive Experiences	Barriers	Expectations
• Rapidly growing media and public interest in the issues of school catering forces policy makers to develop platforms for discussions negotiating the problems and role of school catering; • Growing number of NGOs supporting local schools in their attempts to look for decentralised procurement. Also – growing popularity of school networks proclaiming their support and involvement in reaching specific environmental, social, ethical or other goals; • Political support to ensure free meals to ever growing group of pupils and determination to continue to expand this group; • A broad spectrum of channels used to be used to supply food to smaller rural schools. Historically these schools might have been using products from school gardens, receiving products from pupils' family gardens, maintain private relations with local farmers, etc. Partly this is possible because there is a benchmark that allows buying smaller purchases without organising official procurement. Yet it is also possible due to openness of local cooks to use variety of products just to ensures that pupils have access to diverse meals of high quality; • Stakeholders involved in the school catering sector in general are interested to maintain a dialogue with governing actors and to work to improve the performance of the sector; • Stakeholders (farmers and municipalities) are accumulating knowledge needed to ensure that local farmers are participating in the public procurement and also have the possibility to win in tenders. • School catering is seen as the entrance point that could be used to work with other pressing issues. It has been historically seen as a way to improve equity. Yet now activists see the role of school catering, for example, to reduce food waste.	• Attempts to improve school meal are fragmented and thus policies often work against one another. Furthermore, conflicting visions among ministries create active counteractions destroying many good initiatives. • School meals are becoming an object used in the competition municipalities have among themselves. In overall, free meals should serve to reduce inequality. Yet, due to the competition they are becoming to reinforce existing geographical inequalities. • While policies are created at the national level, most of them are implemented at the municipal level. The research illustrates that municipalities might have their own goals, might be unprepared and unwilling to get involved in the school catering processes; • Furthermore, especially the smaller municipalities lack resources to maintain the expertise needed to secure quality meals for pupils. Thus it is easier for them to assign the ownership of these issues to private enterprises catering the pupils; • Unclear future of the municipalities (territory covered by municipalities). • Farmers lack the experience or social networks that would allow ensure *constant* availability of the products schools' need. Also – since smaller local farmers have not learned to cooperate, they cannot deliver big amounts of products and thus they can trade only with the smallest schools. • Mechanisms and actors controlling enterprises ensuring school catering are weak and underfunded. Thus they might have difficulties to maintain sufficient control over the caterers. This means that in many cases caterers can do whatever they want and it will take a comparatively long time to actually do something about it. A typical example for this is when caterers have promised to deliver organic food during the procurement negotiations yet in reality are selling cheaper products of lower quality.	• The top one priority discussed in workshops was to increase the funding allocated to ensure that pupils receive quality meals at school; • However, it was also claimed, that there is a need in a further decentralisation of the field – the participants of the discussions where claiming that there should be more flexibility regarding the nutritional requirements set for pupils. This in fact was domain where interpretations of NGOs and governing actors collided. First claimed that pupils and entrepreneurs involved could find a ground for discussion with pupils and use it to ensure that pupils have access to the high quality meals of pupils' choice. Meanwhile, governing institutions claimed that control is the only way how entrepreneurs can be reinforced to follow the rules; • Schools should pay more attention to ensure that there is focus on the importance of healthy and nutritious diets. Schools should be used to address pupils' parents and to educate them on these issues. • Current infrastructure (school kitchens and schools canteens) is not equipped to fundamentally restructure school catering. The existing infrastructure is outdated and often has the capacity that does not correspond the school size. • All pupils have access to free of charge meals that are of high quality. This is among central goals that are expected to reduce food inequality among pupils. Yet it is also expected that free meals for all pupils might reduce food waste schools produce. • It was expected that national government would pay more attention to ensure that higher share of the products used to cook school meals are bought from local farmers and local food producers. There are discussions among participants concerning what does local product means. • Improving quality of meals provided in schools cannot be seen as a standalone task. Territories around the schools should have stricter control on what is sold there. Fast-food chains should be banned from territories close to school. Otherwise the catering enterprises can introduce meals of higher quality but they will lose in the competitive battle against the habits and enterprises pulling pupils back to unhealthy diets; • Quality regulations for public catering should not be seen only as a tool to improve pupils' diets. It should assess the products these regulations could

	• Furthermore, the governance of the school catering is so complex and there are so many controlling actors involved that instead of real conversation with entrepreneurs there is rather a constant battle among state agencies regarding who should be responsible for what. • When small local farmers compete in public procurement for school catering it becomes apparent that logistics are both more expensive for small farms and in a long run – might be also more environmentally damaging that it would be for bigger enterprises. This could be solved either by cooperation or by diversifying the set of products farmers grow. • Under the complex regulations it is easier for municipalities to collaborate with bigger and more experienced partner. As a result school catering in general is centralising. •	change in broader run and aim at these products. The quality regulations should be used strategically to change the common production practices; • In order to introduce functioning green public procurement local governments should invest more to understand the food systems in the territory; • Both caterers and suppliers should be obliged to educate pupils. This would mean more information available next to the food served as well as occasional displays to illustrate what it means to grow or to cook. • Enterprises and municipalities should negotiate contracts that would allow making investments in infrastructure – rebuilding canteens, kitchens, buying new cutlery.

Latvian Smallholders in School Food Provisioning

Positive Experiences	Barriers	Expectations
• Policy initiatives like GPP introduce positive discrimination that levels the playing field between bigger and smaller suppliers. • In the search for their role in Latvia's contemporary agriculture advisory service of Latvia has developed an interest in small farmers and their business possibilities. • School milk and school fruit schemes offer an opportunity to small farmers. Both are frequently criticised by farmers. Still both are recognised as an important tool to ensure outlet for small farmers and to shape general attitude towards these products. • Small farmers are getting ever more organised and able to supply the products for local canteens and other clients in the cities. • New supply channels are gaining popularity and thus farmers have ever more options to access customers. • Farms themselves find new innovative ways to operate that offers greater flexibility in relations to clients. Most of these practices aren't new globally. They are rather new for the region. However, this just shows that farmers are willing to learn from various examples.	• Small farmers are seen as less important if compared to actors of scale. Major share of state agencies are actively supporting and promoting the bigger actors of food systems. • Discontinuity of municipal practices could be interpreted as a barrier. Not so long ago Tukums municipality made a commitment to introduce a new municipal procurement programme that would favour local farmers. However, the change of employees in the municipality shifted the focus of municipal procurement programme and now municipality is looking to provide nutritious meals. The program is not running yet. Still the old program has been abandoned already. • All together the market for products originating from small farms is small and cannot absorb all the produce originating from small farms. Due to this a significant share of products are sold in the same channels where big farmers would sell their products. This means that the differences between two products are lost in the production process. • The centralisation of catering reduces the role of small farmers in school catering. Big caterers prefer to collaborate with logistics enterprises that can ensure that all products will be available at all times. • Collaboration with small farmers is perceived as an additional administrative burden on the shoulders of municipality.	• Lowest prices should not been the main principle guiding municipal choices. • Initial support in creating additional outlet markets. • Need to organise farm visits and to create links between society in general and small farmers were stressed again and again in interviews and in workshops; • Municipalities could move in to be a founding partner in local cooperatives uniting local farmers and helping them to make joint strategic investments (storing facilities, delivery trucks); • Some actors, like State advisory service have more experience in organising the issues small farmers have. Their presence could remove some burden municipalities currently feel.

Spanish peri-urban agricultural initiatives

Positive Experiences	Barriers	Expectations
• The Committee of Organic Farming started to interact with PGS (Participatory Guarantee System) to discuss about how to approach standards • Regional safety administration officers started to visit small-scale food initiatives to explore the possibility to tailor existing (and too demanding) safety regulations. • Lead by specialized civil society organizations, several administrations at different levels have been meeting to advance on overcoming policy-based barriers to Short Food Supply Chains (SFSC). • There is growing coordination between the local council and the regional government regarding land use planning. • Food has entered in the local policy agenda, and there are efforts (not always successful) to coordinate different departments in charge of different responsibilities (health, agriculture, marketplaces, land planning, environment) • Initiatives take place in and connect to social mobilisation for the defence of The Huerta. There is social awareness about the future of this space. • Many initiatives are the result of collaboration between producers and consumers (e.g. CSA), mostly initially led by farmers.	• Municipal fragmentation of the metropolitan area. The Huerta area extends across several municipalities that define the use of their territory developing their own urban plans without a regional framework strategy. Despite the attempts, there is still a lack of appropriate tailoring of legal and administrative requirements on safety or environmental. • Several food public procurement requirements and economic conditions still prevent agroecological initiatives to be able to participate. • Coordination and collaboration between different administration levels need to be strengthened. Local Food Council and Food Strategy specific actions maintain a municipal action area, however for an adequate food planning it is required to move towards a higher coordination. • The ongoing process of building a Local Food Council as a place for dialogue, coordination and governance of different actors within the food system is projected as a key element towards a more inclusive and participative food system. However, so far not all actors seem to be interested, e.g. big retailers. • There are not agricultural cooperatives in the study area. Farmers are reluctant to formalise cooperation, and they tend to do it individually and on a short-term basis. • There is a lack of broad population commitment (or real interest) towards the Huerta and food producers' related issues.	• Deepen and concrete changes in safety requirements and regulations (e.g. tailoring/ easing legal procedures, health registration and good hygienic practices for small-size initiatives, allowing multifunctional health registrations for shared production facilities; modify the existing municipal ordinance regulating street selling, which currently does not allow food sale, etc.). • Valencian Local Food Council (CALM) is currently being built (expected by the end of 2017), led by the municipality with the assistance of several specialized civil society organizations. This Council wold be expected to become a major meeting arena for all the actors and organisations engaged and involved in the several ongoing processes and initiatives. The aim would be as well to turn this council in an advocacy platform. • A municipal led Local Food Strategy (where CALM is one of the action lines), is currently being defined. • Developing advisory and training services for new farmers • Creation of an Observatory for the agricultural sector; generate systematic real information of what is happening. • Demonstrate concrete public policy commitment, e.g. by public procurement initiatives • A new legal and policy framework regulating land structural issues (access to land, land banks) is being discussed. Activists want this policy initiative to move away traditional views (land consolidation, traditional public investments) • The internalisation of the real cost of unhealthy and unsustainable food would improve the competitiveness and public acceptability of local and organic food. • Interestingly, there were hardly any mention to the CAP, as if participants believed that the EU policy level is not relevant for this type of agriculture. • Administration support for collective organization at producers and consumers level. • There is a demand to create collective services and infrastructures (e.g., shared manufacture workrooms, purchasing centres). • The regional food sovereignty platform advocates for claims being made by small-scale producers and manufacturers initiatives and social organizations. • Develop a business incubator adapted to the agri-food sector that helps to develop projects inspired by social and solidarity-based economy and sustainability. • A comprehensive Territorial Action Plan for provides for the creation of a Management Body where different administrations levels, municipalities, producers, distribution and consumer associations, social organizations, universities, etc. interact.

Spanish FNS in remote rural areas

Positive Experiences	Barriers	Expectations
• In some villages in the Chistau Valley, travelling retailers are exempt from paying any type of fee or municipal tax for selling in the village. These taxes are common in other larger villages (with a trading structure) in the lower areas. • A social embeddedness of travelling retailers and their "customers" develops, stablishing personal relationships beyond the economic activity. As an example, some merchants bring the product to the home of those people with limited mobility; or they even get to clean the freezer to older people who have difficulty performing the task. In turn, some clients may offer them some food products from their own production. • In other regions experiencing similar difficulties in providing food and basic services related to depopulation and where travelling retailers are also operating, synergies have been developed between them and supermarkets in a mutually beneficial relationship. In exchange for accessing customers to which they would otherwise not reach, the supermarket covers the orders distribution costs.	• In general, we may speak of a poor effectiveness of the public social and development policies. Actions do not translate into better results and depopulation of rural areas in Spain remains a persistent phenomenon. The demographic decline implies the disappearance of basic services, such as food stores, which affects the remaining population and encourages further depopulation. • The poor condition of the roads (that depend on public investments) and the high altitude where populations are located makes it difficult to travel, especially in winter. • This case study is the story of a food access necessity which has been fully responded by the market. Commercial activities are totally private, basically without any support or incentive coming from the Administration, and thus cannot be associated to positive experiences from public policies. • The medium and long term viability of the model based on the role of traveling retailers is conditioned by its economic viability and, therefore, by the evolution of the level of demand. In this sense, the ongoing demographic decline jeopardizes this model	• Improve access conditions to basic services in rural areas. This becomes more important for the elderly and for those with less mobility. • Improve communications, overcoming barriers of isolation. Ameliorating the maintenance of roads and ensuring Internet access throughout the territory (important, among other things, to place orders). • Develop public policies aimed at supporting and stimulating travelling retailers, regulating as a counterpart basic aspects of the service such as frequency and diversity of supply. • Increase efforts to serve the rural population with special attention to the elderly. Develop specific programs that include collaboration between different actors (public-private-social). • Analyze the relevance of promoting and generalizing the introduction by cooperatives of provision services for care dependent persons. This diversification of activities is already being conducted on some small rural cooperatives in the Valencia Region.

UK's Sustainable Food Cities Network

Positive Experiences	Barriers	Expectations

• A key goal of the SFCN is to promote a holistic approach to food policy. In order to implement this approach cities that join the network commit to:
  - Creating a city-wide **cross-sector partnership** of public agencies (health, environment, economy), businesses, NGOs, community organisations and academic bodies.
  - Developing a **joint vision** and **common goals** on how healthy and sustainable food can become a defining characteristic of their city.
  - Develop and implementing an **action plan** that leads to significant measurable improvements in all aspects of food, health and sustainability.
• The SFCN also connects policy levels, from the local city experiences to national debates. Particularly, the network has created common resources and campaigns to influence national agendas.
• As stated above, a key aim of the SFCN is to create cross-sectoral partnerships and urban food strategies. In these partnerships they aspire to include different stakeholders, from production to waste. Similarly, action plans aim to establish connections among these different sectors.
• The SFCN has developed an award to help cities work from a cross-sectoral perspective.
	• While the SFCN and the local food partnerships promote holistic accounts of food systems, locally government departments, public health and civil society might not be used to working together.
	• In some cases, partnerships, local governments or civil society might prioritise specific issues which are considered more important – for example food poverty instead of environmental protection - disregarding a holistic approach.
	• In some cases issues such as food poverty might be politicised – with parties supporting different lines at the national level – which complicates implementing long-term programmes.
	• Effective intervention in the food system requires working across different scales, while the SFCN is increasingly having a national voice it remains restricted to public debates and not necessarily tackling other powerful actors and dynamics in the food system (e.g. retailers, advertising, etc.)
	
	• There are key sectors that are seldom represented in urban food policy processes, mainly farmers which are based in the hinterlands or even further away.
	• There are sectors or interests that are not represented in local governments, such as agriculture or consumers.
	• In the context of increasing food poverty and economic and health inequalities, it remains particularly challenging to work from a food chain approach, which is by and large relegated to national and/or European policy spaces.
		• Develop stronger relationships between cities to enhance good practice sharing and knowledge co-production.
		• Include a territorial perspective that allows better connections between urban areas and their hinterlands.
		• Provide tools for local governments to establish better connections between departments working on food.
		• Provide evidence of the social, economic and environmental benefits that can be deliver through a sustainable food cities approach in order to align government's departmental goals to work on food. This should also underpin calls for better funding of food initiatives and also explicit support to facilitate food partnerships.
		• Develop internal and external mechanisms that allow connecting better local demands and policy processes to national policy debates.
		• Develop a local food system assessment that reveals the different sectors and stakeholders involved in feeding the city.
		• Develop mechanisms to facilitate participation of underrepresented actors that are key in the food chain.
		• Develop mechanisms to establish policies at local, regional and national levels that integrate the geographical dispersion of stakeholders.

UK's Food Co-ops and Box-schemes

Positive Experiences	Barriers	Expectations

• Food co-ops: the community food co-ops provide an example of an attempt for an integrated approach to food policy, working across public health, agriculture and business.
• Box-schemes create new relationships between different stakeholders (producers, consumers, intermediaries, cafes, etc.) and spaces (urban/rural, local food and imported) and also establish new linkages between sustainability and FNS dimensions.
• Food co-ops contribute to some extent to all different dimensions of FNS, especially in terms of access to affordable healthy food and the social aspect of utilization, bringing communities together. They tackle both economic and physical barriers to accessing fresh fruit and vegetables as well as strengthening the communities' ties. They connect communities and consumers with traders and/or producers.
• Box-schemes contribute to the availability of and physical access to fresh, organic and in most cases local vegetables. This type of food hub and associated practices have the potential to improve the utilization of foodstuffs and address some of the environmental and social dimensions of unsustainable food systems by reconnecting different stakeholders, themes - such as health, education and environment- nd spaces.
	• There are three main challenges in the food co-op model:
	  o Food co-ops offer a very good value for money, however the contemporary food price volatility and temporary lower prices in supermarket may make their offer less attractive especially in urban areas with more shopping options.
	  o The inability to choose (or predict) what goes into the bags was often listed as a reason for dropping out of the scheme or not being interested in the first place
	  o Although the message that food co-ops are for all is strong, their opening hours which are usually from late morning to early afternoon may make it inaccessible to some people
	• The creation of box-schemes relies on volunteers or entrepreneurs which often do not have the infrastructure to sustain the business in the long term. Better access from productive areas to the city needs to be considered.
	• Food co-ops:
	  o Fail to address the stability element of food and nutrition security since food prices vary and other competing outlets might offer cheaper options.
	  o Rely partly on volunteering work and public support and therefore might be dependent on community ties or motivated individuals.
	  o Rarely engage with production processes and power distribution within the supply chain and therefore fail to address key structural vulnerabilities of the food system.
	• Box-schemes: socio-cultural and economic access remains the main obstacle of the boxes in comparison to non-organic vegetables and fruits from supermarkets or buying groups as shown above. Mainly, vegetable boxes are regarded as not affordable for people on low incomes or those who do not want to pay more for their fruits and vegetables than they would do in supermarkets. Producers also highlight the lack of support for organic farmers in agricultural policies, difficulties to access land and training, and the low level food literacy of consumers as key barriers to develop their initiatives.
		• Develop mechanisms to adapt national policies to local conditions in order to assure positive outcomes.
		• Develop flexible organisational models that meet the demands of different groups (opening hours, selection of products, etc.)
		• Connect lack of access to fruit and veg to employment and welfare policies.
		• Develop, invest or use infrastructure more efficiently to sustain these initiatives in the long term.
		• Develop stronger policy links between the environmental, social and economic benefits of these initiatives. For example, food co-ops could be better integrated in social policy, and veg boxes could help meet environmental targets.
		• Develop tools to create stronger networks across the food chain that result in viable economic business and replace charity-based models.
		• Create a network of diversified food businesses that cater for different consumers and needs.
		• Vegetable box providers suggested measures to support organic agriculture, access to land and training.
		• Address the structural causes of inequality and current food prices (support to industrial agriculture though subsidies, access to land, low wages, etc.) to develop food economies that deliver quality products rewarding fairly producers and traders and are also affordable for all consumers.
		• Develop or strengthen integral food education programmes, among others to regain cooking skills that facilitate the consumption of (native) vegetables.

Annex II: Request for merging D7.1 and 7.2

Goals of Work Package 7 of Transmango are to define the major challenges for policy makers in enhancing social and technological innovation that will lead to food and nutrition security; to identify how these challenges can be addressed at different policy-making levels; and to analyse the impact of the outlined policy recommendations on the (private) stakeholders in the food system. Originally, it was planned that Deliverables 7.1 and 7.2 would be separate, the former constituted of a report on policy recommendations and the latter delivering recommendations for (private) stakeholders. However, following Transmango's fifth project meeting in March 2017, it was agreed among consortium members that these two deliverables should be integrated into one. Keeping the two deliverables separate was considered to be analytically problematic; it was also though that this would result in deliverables which were neither useful nor relevant. This is because as Transmango has progressed, two key lines of thought have emerged as underpinning this study and its findings –**systems and assemblages** - which when considered together reinforce the importance of merging these two deliverables.

A key objective of Transmango is to assess food and nutrition security vulnerabilities in an integrated way. This requires taking a holistic **food systems approach**, recognising that the manner in which all food system activities take place impacts directly on food system outcomes. Although this approach is not novel, until Transmango there lacked a conceptual framework which sufficiently reflected the full, complex and multi-scalar nature of the food system, especially for the assessment of vulnerabilities (see Figure 1: Transmango's Conceptual Framework of the Food System for Vulnerability Assessment). One particular aspect of this model which is relevant for the merging of Deliverables 7.1 and 7.2 is its focus on the multi-level perspective on transitions whereby it is recognised that change occurs through interactions at three different but interrelated levels: the micro-level of 'niches'; the meso-level of 'regimes' (in which certain technologies and modes of social organisation are considered to be most appropriate and favoured by regulatory frameworks, fiscal regimes, market conditions, codes and conventions etc); and the macro-level of socio-technical 'landscapes' (which refers to factors such as trade negotiations, physical infrastructures, government structures, societal values and beliefs). Change is said to occur simultaneously at these three levels with these changes linking up and reinforcing one another, for example niche innovations building up momentum; landscape level changes stimulating niche innovations; and destabilisation of regimes creating windows of opportunities for niche innovations. When the reality of the food system is that public policy and private stakeholder activities are so inextricably linked, it is difficult to argue for the theoretical division of these two topics and the delivery of separated public policy and private stakeholder recommendations.

The most valuable part of the Transmango study is undoubtedly the local case studies which were carried out with promising alternative food initiatives (AFIs), and the 'bottom up' recommendations generated from these. The practices within these AFIs are treated, in this study, as **assemblages**. The adoption of assemblage theory evolved from a previous focus on transformative capacity and transition pathways which was considered to be unhelpful due to their dichotomous focus on 'good' and 'bad' practices. Instead, utilising an assemblage lens emphasises the dynamic and fluid nature of these practices which encompass '…*the dominant and the alternative…(and) co-existing and competing ideas and discourses on sustainability, food security, food sovereignty, public health, public private or civic policy responsibilities…"* Assemblages are practices which bring together an array of social actors (including producers, consumers, policy makers, activists) and also their objectives. Therefore, the merging of Deliverables 7.1 and 7.2 is in keeping with the assemblage line of thinking; there is little value in separating policy recommendations from (D7.1) from private stakeholder recommendations (D7.2) when the two are contingent articulations of the same assemblage of practices.
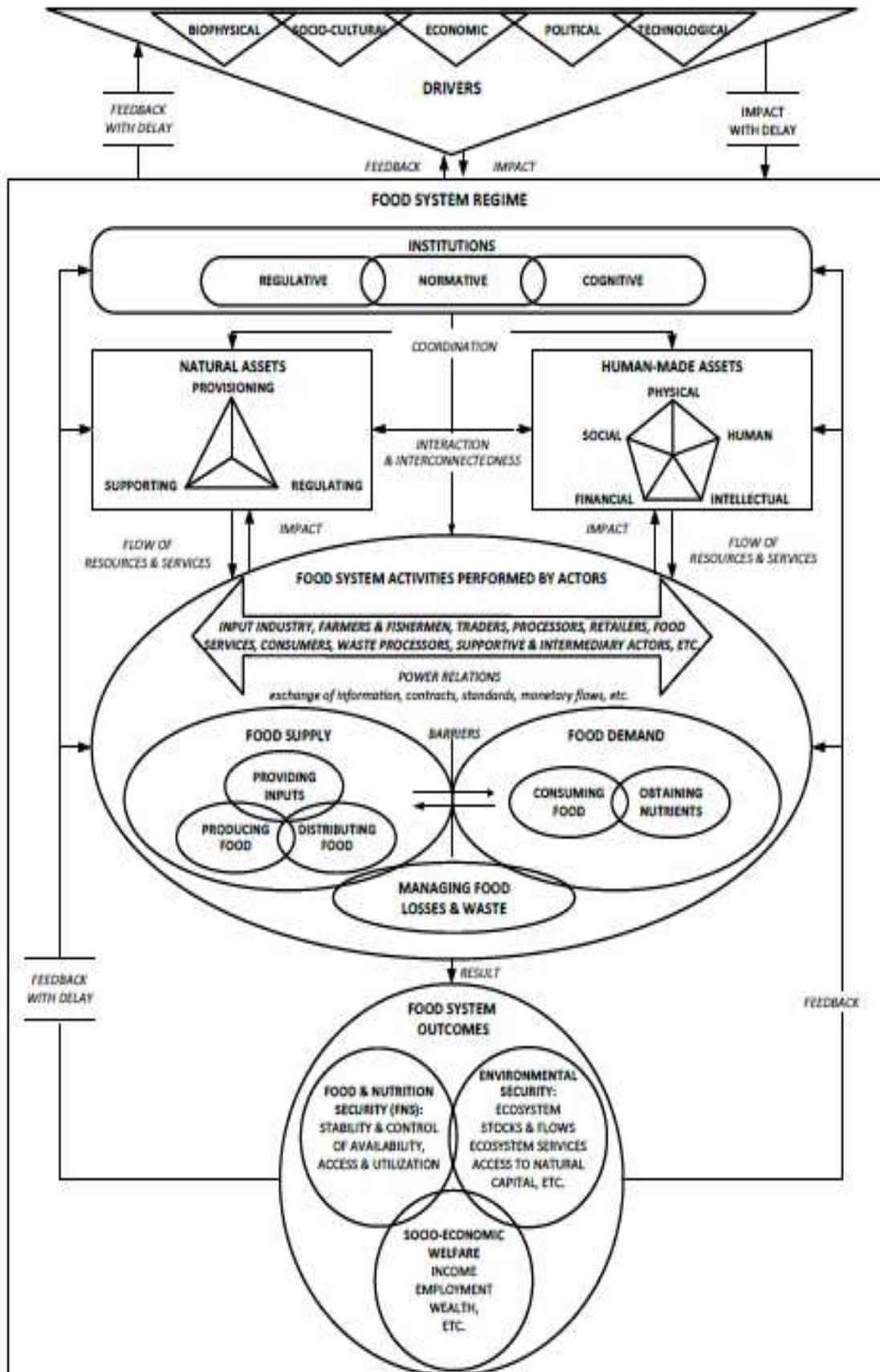
Figure 5: Transmango's Conceptual Framework of the Food System for Vulnerability Assessment