











# Sustainable Food Systems

ROBUST Community of Practice Synthesis Report

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With contributions from CoP partners

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# 1.Introduction to the CoP

# 1.1. Aim of the CoP Sustainable Food Systems

The CoP Sustainable Food Systems and its members were exploring new localities, governance and their networks and smart development opportunities and practices by finding local practices and match them with research grounds to testify good and bad examples of rural urban relations.

In new localities, we were researching different urban planning and land use techniques and practices that have impact on sustainable food systems and resources while we were trying to better understand new forms of space and resources for production. When it comes to governance, the key was to understand the networks of governance and its functional results. We wanted to understand forms of knowledge sharing among different social and age groups, we wanted to understand the motivation for cooperation and how to keep it. By understanding legislative solutions to enable sustainable food systems we tried to better understand possibilities for smart development and the necessary capacities and instruments to develop and implement related strategies.

All this gave us an opportunity to better read the smart growth and analyse links to other policies unrelated to food and agriculture as a base for the development of knowledge on cross-sectoral impact. In some cases, our partners tried to understand the cost and benefits of the different food systems. Our results lead to the development of "how to" guide to support future development of lively sustainable food systems. To share knowledge, we implemented webinars and published articles and short learning papers on different angles of food systems.

# 1.2. Co-ordination and management of the CoP

The CoP was a coordinated action among Ede Municipality (Netherlands), Gloucestershire County (UK), Lisbon region (Portugal), Ljubljana Urban Region (Slovenia), Lucca Province (Italy), Mid Wales (UK), Tukums Municipality (Latvia) and Valencia Region (Spain). The CoP was coordinated by Oikos (research partner from Ljubljana Urban Region, Slovenia). The CoP work took participatory approach where partners are strongly leading the content and pace of the work while coordinators were supporting the CoP with information sharing and administrative support.

# 1.3. Report aim and structure

The aim of the report is to present the joint work and results of the members of the CoP as a group and to show joint research and exchange of practices. The report is structured to show the research process and learning cycle, review of the CoP themes and common learning. The monitoring and evaluation of learning show to the impact of the CoP activities and should be seen as a key to the wok of the CoP.

### 1.4. Overview of the functional theme

In popular understandings of the rural and the urban, food production is often presented as one of the defining features of the former. This association has been partly overcome both in academic thought (in understanding the rural and the urban as contingent and socially constructed categories) and through the lived experience (with decreasing importance of agriculture in rural economies of the global North). However, food remains one of the key linkages between cities and the countryside. Literature investigating food systems and supply chains thus often more or less explicitly touches upon rural-urban relations and synergies.

Within the literature addressing territoriality more directly, calls for localized food production are contrasted with the "food from nowhere" produced by industrial and long supply chains. Some of the early debates summarized by Feagan (2007) emphasize the importance of place in food production, with concepts such as foodshed or terroir relating particular qualities of food product to the place-specific biophysical conditions. In practical terms, this connection can be expressed through European certifications of geographical indication (Protected designation of origin or Protected geographical indication) aiming to acknowledge the value of the local bio-social environment, including often also traditional production methods. While such geographic certification can serve as leverage to particular production areas, they do not adequately account for issues of distribution and consumption.

Efforts to bring together consumption and production, along with distribution, sustainability and health, are seen in the rise of urban food policies. Urban food policies are defined as a "concerted action on the part of city government to address food-related challenges" (IPES Food 2017, p. 9). Urban food policies often emerge by way of engagement and pressure by civil society and other actors. These policies reflect different concerns and contexts. Their organizational structures and foci differ, but they tend to share similar goals of supporting sustainable and just food systems, with some working to support policy development for improving healthy food, increase availability and access to sustainable food, reduce waste, change land use or influence land use planning, enhance local markets, and/or strengthen local food economies. Moreover, urban food policies are often developed to address democratic deficits at the national and global level, with a focus on participatory processes and greater citizenship engagement, linking diverse stakeholders and policy domains, and prioritizing sustainable, inclusive planning and health.

It must be stated that urban food policies are but one aspect of broader-scale food systems change (Barling et al 2002). Many problems associated with the food system rely on issues that expand beyond the jurisdiction of cities including: trade, economic, agriculture and public health. These are policy areas that usually cannot be fully addressed at the city level and point to the need for policy integration (see below). That does not however take away from the transformative potential of cities and of municipal policy and the emerging role cities are playing in these processes.

However, the increasing recognition of relations between rural and urban areas are supporting new territorial governance arrangements. Such arrangements are being championed by cities including Ede and Lucca, and supported by actors like the FAO who are promoting a city-region approach that aims to foster the development of resilient and sustainable food systems within urban centres, peri-urban and rural areas surrounding cities by strengthening rural-urban linkages. Such an approach requires city-regions to assess their food (inter)dependencies, identify weaknesses and potential pressure points, and where possible, develop targeted strategies to improve their food systems in such a way to include all actors, processes and relationships that are involved in food production, processing, distribution and consumption in a given city region (FAO 2019).

Another stream of literature calls for the localization of both production and consumption as a way of improving the ecological impacts of food (mostly through decreasing transportation, packaging, cooling etc.), fostering local economies and agency. Authors promoting economic localization (such as Desai and Riddlestone 2002, Douthwaite 1996) do not limit themselves to food alone, though agriculture has a prominent space in their imaginaries.

A transition to more sustainable forms of food production and consumption is likely to involve the reorganization of food production closer to urban markets. We already see the peri-urban emerging as a key site for sustainable agriculture initiatives, not only because of the proximity to urban consumers, but also because of other structural conditions that create space for experiments with alternative food systems. However, an over-emphasis on peri-urban areas must not come at the expense of what happens to rural regions farther from the cities. These rural regions should still be linked to sustainable urban food networks, but there is more research and analysis needed to understand how to most appropriately move beyond (re)localization.

# 2. The research process and learning cycle

# 2.1. Composition of the CoP

CoP members had their set of goals i.e. overarching themes they would like to explore. This gave the CoP a wide range of possibilities for cooperation among members but also to make coordination rather complex as the list of topics is broad. Further on, each of the CoP partners also defined their research objectives to guide their exploration of the overarching theme selected for the motto. In the end, each of the CoP partners defined what would be innovative with respect of their current experience, research field and needs of research stakeholders.

CoP partners teamed up in smaller, more focused groups for research of similar or interrelated topics. Such associations fluctuated freely during research, as some of the CoP partners may have joined after observing the relevance of the specific group's research topic for their own objectives. The Living Labsof each of the CoP partners were the key for the joint work of the CoP.

CoP Partner	Motto	Research objectives
Ede Municipality	Further developing and integrating Ede's municipal food, environmental and spatial planning policies, by formulating goals and distinguishing key indicators for monitoring its agri-food system and natural capital.	Better insights into the opportunities/limitations of wider municipal food policy dashboarding in terms of regional rural-urban relations and interdependencies.
Gloucestershire County	To assess the potential and feasibility of circular economy (CE) and natural capital (NC) growth models in the county and their potential for synergies and improved urban-rural linkages.	In the sustainable food systems theme, the objective is to collaborate with stakeholders in food procurement contracts to identify and promote practices which reflect CE approaches to material flows, for example minimizing waste.
Lisbon region	Territorial cohesion from within: bridging metropolitan communities and economies for improved urban-rural synergies.	How to enhance functional relations through processes of co-creation, learning and innovation? 1. To capture an integrated understanding and shared knowledge of local assets - learning with existing knowledge, and creation of new; 2. To stimulate mutual dependencies and learning networks through dialogues and joint initiatives for cooperation to enhance the value of local assets; 3. To create innovative institutional frameworks for improved decision-making/governance systems
Ljubljana Urban	Functional collaborative partnership/platform to co-design and	Understand the needs in the region and the potential to increase the use of
Region	operate short food supply chains in Ljubljana's City rural-urban relations.	locally produced food in region's public institutions
Lucca Province	Developing a local food policy and a territorial plan to reduce	Analyse the policy process and the governance model for the local food policy

CoP Partner	Motto	Research objectives
	urban sprawl, steer synergies between the city and the countryside, and valorise cultural heritage, landscape and territory.	(promotion of sustainable food system, strengthening of rural urban connections) and identify how territorial planning can contribute to promoting multifunctional and sustainable agriculture and food systems in peri-urban areas
Mid Wales	Polycentric growth without an urban hierarchy.	To examine and strengthen mechanisms for engaging governance actors within and beyond Mid Wales in collectively developing a strategic vision for the region, examine the extent to which principles of smart development are reflected in economic growth plans and projects in the region and to identify and test opportunities for incorporation and to assess how rural and urban resources are enrolled in smart development initiatives and the added value achieved through rural-urban synergy
Tukums Municipality	Developing a cultural strategy for the municipality by identifying key development objectives and priorities.	Expand upon the significance and popularity of Tukums market by organizing a series of events on rural-urban relations, focusing on the best ways for rural producers to present and package their products and highlight their connection to local culture and cuisine.
Valencia Region	Contributing to implement rural-urban territorial processes in the domains of business, labour markets, public infrastructure and sustainable food systems, in the framework of a more territorial and comprehensive view.	To analyze what rural-urban relations and governance models are being generated in relation to sustainable food systems, playing an active role promoting and participating in work-groups as governance bodies focused on development strategies in the field as well as specific initiatives.

# 2.2. Timeline of activities/meetings and documented interactions

The CoP members cooperated on several research topics and developed several joint research or practice papers. A broad agreement on topics and form of cooperation was reached at the Partners Meeting in Helsinki in May 2019, based on preparatory and exploratory activities performed in 2018 and early 2019. As a result, CoP members collaborated on preparation of the 3 types of papers: snapshots, thematic briefings and articles (see chapter 2.3 for further description).

The work of the CoP was affected by the COVID-19 outbreak in 2020, with cancellation of the already planned meetings between the stakeholders at Partners Meeting and ICLEI Informed Cities Forum in Lucca in March/April 2020. This limited already planned collaborative research activities of project partners, as well as further closer collaboration among Living Labs as the possibilities to meet and discuss challenges in detail with possible field visits. Collaboration thus shifted to purely online format and was limited to research that could be done online as the usual fieldwork techniques (interviews, focus groups, observation) were restricted.

## **Snapshots**

Topic	Partners	Coordination
Food strategies	Tukums Municipality, Lucca Province, Ede Municipality,	Gloucestershire
(preparation,	Gloucestershire County, Mid Wales, Lisbon Region, Valencia	County
participation,	Region	
implementation)		
Indicator frameworks	Ede, Lucca	Ede
Branding, alliances, and	Lucca Province, Ljubljana Urban Region, Tukums	Lucca
link to PGS	Municipality, Mid Wales	
Governance	Mid Wales, Lucca Province, Valencia Region, Tukums	Tukums
	Municipality, Lisbon region, Ede Municipality	
Territorial cohesion	Mid Wales, Valencia Region, Tukums Municipality, Lisbon	Mid Wales
	region	
Procurement Innovation	Ljubljana Urban Region, Lucca, Tukums	Ljubljana Urban
		Region

## Thematic Briefings

Topic	Coordination
Innovation practices that LLs are using or have identified during their work	CoP Coordinators
<b>Branding and cross sectoral practices</b> (branding practice, cooperation of authorities/sectoral institutions)	CoP Coordinators
<b>Public procurement and food systems</b> (fostering the sector, governance and coherent policymaking, synergies)	CoP Coordinators

#### **Articles**

Topic	Partners	Coordination
Food policy indicators		Ede
Comparison of local	Mid Wales, Lisbon Region, Tukums Municipality, Lucca	Gloucestershire County
food strategies	Province, Ede Municipality, Gloucestershire County,	
	Valencia Region	
Food policy and	Mid Wales, Valencia Region, Tukums Municipality, Lisbon	Mid Wales
territorial cohesion	region	

In addition to papers, the CoP members agreed to organise several webinars as a way to present and discuss their findings and to include their Living Lab (LL) members. Discussions about local practice and with other CoPs also led to organisation of a field day to see the local experience and look at synergies between topics of two CoPs — food systems and cultural heritage.

#### Webinars

Topic	Partners	Coordination	Timing
Branding	Lucca Province, Ljubljana Urban Region, Tukums Municipality, Mid Wales	Lucca	27 July 2020
Public procurement and impact on local food chains	Ljubljana Urban Region, Ljubljana urban region Lucca, Tukums, Lisbon		15 May 2020
Local food strategies	Tukums Municipality, Lucca Province, Ede Municipality, Gloucestershire County, Mid Wales, Lisbon Region, Valencia Region	Gloucestershire County	10 October 2019

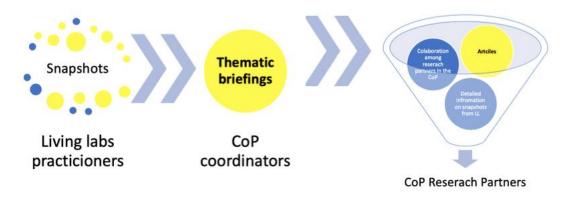
## CoP meets local experience

Topic	Partners	Coordination	Timing
Expectations and experience	Tukums LL, CoP	CoP Cultural Connections	5November 2019
of LL members with new food	Sustainable Food Systems	coordinator - as an	
system concepts (local food	members and CoP	additional day to the	
strategies, branding, PGS) and	Cultural Connections	Partners Meeting in Riga in	
its cultural connections	members	November 2019	

# 2.3. Processes for communication / knowledge exchange / learning

## **Outputs**

Outputs of the CoP work may be seen in different papers/documents which were produced over the period of the project and ensured the cross fit of the researchers' and practitioners' work. Papers developed are listed in tables above.



The idea of the snapshots was to record practice, principles or example for other COP members to looks at and examine within their own LL. When the research work was done these generated grounds to develop thematic briefings as a semi scientific and focused paper among practitioners and researchers to better understand the related processes and structures. Along with the whole process articles were written by the research partners using and observing cases presented with in the Snapshots and thematic briefings. As discussed CoP members agreed to develop three levels of outputs and developed them as follows:

Paper/document	Level or capacity or scope	Content
Snapshots	Information, focus on practitioners, sharing, motivation	Information, contacts, practices, practitioner oriented
Thematic briefings	Semi scientific and focused on practitioners	Cross cutting information from practitioners with scientific background and analysis.
Articles	Scientific	Based on scientific work and findings developing articles with scientific value but cross fitting them with practitioners needs and topics

#### Communication

Regular communication in the CoP was based on the <u>Skype and Zoom meetings</u> and <u>email communication</u> with information provided to all members of the CoP and coordinators of other CoPs.

#### Database

The database of the CoP available at the Wageningen University data management system updated regularly with the final version of the documents.

#### **Deliverables**

In the time of project implementation members of the CoP contributed over **45 pieces of evidence or documentation** to the body of the knowledge of Robust in several forms. Some of the knowledge and information was developed for the us in the Living lab while some of the knowledge and information was developed to be shared and to be built on within the common objective of the CoP. In other cases, the members of the CoP contributed the information and material which was used in other deliverables of other CoP or in the joint deliverables of the Robust project.

Туре	Contributing or coordinating Living Lab	Title of the contribution
Practice	Ljubljana Urban region	Green Crate Scheme
based	Ljubljana Urban region	Local Food Marketplace
abstracts	Gloucestershire	Dynamic Procurement Systems
<b>.</b>	Municipality Tukums	Food system governance enabling rural-urban synergies
8 items	Valencia Region	How stakeholders in Valencia living lab adopt a
		sustainable food systems approach?
	Valencia Region	ROBUST Living Labs held regional workshops on cross- sectoral interactions
	Province of Lucca	Participatory Guarantee Systems for the Red Bean of Lucca
	Municipality Ede	Urban Food Policy Dashboarding in Ede
Snapshots/ Rapid appraisals	Valencia	Expressions of Urban – Peri-Urban – Rural Relationships: Valencia - avier Esparcia, Juan Ramón Gallego, Sergio Mensua, Rafael Mesa Manzano (rapid appraisal)
10 items	Ljubljana Urban Region	Rural-Urban Governance Arrangements and Planning Instruments: Ljubljana – Jurij Kobal (rapid appraisal)
	Ljubljana Urban Region	Expressions of Urban – Peri-Urban – Rural Relationships: Ljubljana – Mojca Hrabar (rapid appraisal)
	Municipality Ede	Rural-Urban Governance Arrangements and Planning Instruments: Ede - Henk Oostindie (rapid appraisal)
	Municipality Tukums	Expressions of Urban – Peri-Urban – Rural Relationships: Tukums - Talis Tisenkopfs, Emīls Ķīlis, Sandra Šūmane (rapid appraisal)
	Municipality Tukums	Rural-Urban Governance Arrangements and Planning Instruments: Tukums - Sandra Šūmane, Emīls Ķīlis, Miķelis Grīviņš(rapid appraisal)
	Lisbon metropolitan area	Expressions of Urban – Peri-Urban – Rural Relationships: Lisbon - Maria do Rosário Partidário (rapid appraisal)
	Gloucestershire	Expressions of Urban — Peri-Urban — Rural Relationships: Gloucestershire - Daniel Keech, Matt Reed, Carey Stevens (rapid appraisal)
	Province of Lucca	Expressions of Urban — Peri-Urban — Rural Relationships: Lucca - Francesca Galli, Sabrina Arcuri, Massimo Rovai (rapid appraisal)
	Province of Lucca	Rural-Urban Governance Arrangements and Planning Instruments: Lucca Francesca Galli, Sabrina Arcuri, Massimo Rovai (rapid appraisal)
Research and		stershire County, Lisbon region, Ljubljana Urban Region,
Innovation Lucca Province, Mid Wales, Tukums Municipality, Valencia Region, Lisbo agendas metropolitan area		es, Tukums Municipality, Valencia Region, Lisbon
9 items		
Thematic	Gloucestershire	Food strategies
briefings	Ljubljana urban region	Public procurement
2 items		
Webinars and	Gloucestershire	Webinar: Muncipal Food Systems available at: <a href="https://rural-urban.eu/publications/webinar-muncipal-">https://rural-urban.eu/publications/webinar-muncipal-</a>

Туре	Contributing or coordinating Living Lab	Title of the contribution
workshops		food-systems  We him and the self-part district the Constant of IT meet the self-part district the self-part distr
6 items	Province of Lucca	Webinar: Local Branding - How to Guarantee "True" Local Food available at: <a href="https://rural-urban.eu/publications/webinar-local-branding-how-guarantee-true-local-food">https://rural-urban.eu/publications/webinar-local-branding-how-guarantee-true-local-food</a>
	Ljubljana urban region	Webinar: Public Procurement for a Sustainable Food Supply available at: <a href="https://rural-urban.eu/publications/webinar-public-procurement-sustainable-food-supply">https://rural-urban.eu/publications/webinar-public-procurement-sustainable-food-supply</a>
	Robust	Webinar: Happy Hour with Carolyn Steel - Q&A Session available at: <a href="https://rural-urban.eu/publications/webinar-happy-hour-carolyn-steel-qa-session">https://rural-urban.eu/publications/webinar-happy-hour-carolyn-steel-qa-session</a>
	Robust	Webinar: Sitopia - Rethinking Our Lives Through Food available at: <a href="https://rural-urban.eu/publications/webinar-sitopia-rethinking-our-lives-through-food">https://rural-urban.eu/publications/webinar-sitopia-rethinking-our-lives-through-food</a>
	Robust	Stakeholder Dialogue Breakfast Summary Report: Fostering the Circular Food Economy Through Stronger Rural-Urban Linkages available at: <a href="https://rural-urban.eu/publications/stakeholder-dialogue-breakfast-summary-report-fostering-circular-food-economy-through">https://rural-urban.eu/publications/stakeholder-dialogue-breakfast-summary-report-fostering-circular-food-economy-through</a>
Articles and other	Municipality Ede	A comparative assessment of local municipal food policy integration in the Netherlands – Lara Sibbing (article)
publications	Ljubljana urban region	Public participation as condition for quality strategic planning – Jurij Kobal (MSc thesis)
Over 10 items	Valencia Region	The impact of COVID-19 on alternative and local food systems and the potential for the sustainability transition: Insights from 13 countries - Gusztáv Nemesa, Yuna Chiffoleaub, Simona Zolletc, Martin Collisond, Zsófia Benedeka, Fedele Colantuonoe, Arne Dulsrudf, Mariantonietta Fioree, Carolin Holtkampg, Tae-Yeon Kimh, Monika Korzuni, Rafael Mesa-Manzanoj, Rachel Reckingerk, Irune Ruiz-Martínezj, Kiah Smithl, Norie Tamuram, Maria Laura Viterin, Éva Orbána (article)
	Lisbon Metropolitan Area	Lisbon Food Strategy - Alberto Serra (policy document)
	Mid Wales	A Rural Vision for Wales - Thriving Communities for the Future: Evidence Report - Michael Woods, Jesse Heley, Helen Howells, and Bryonny Goodwin-Hawkins (report)
	Mid Wales	How Local Is Local? Rethinking local food and the public plate in Monmouthshire, Wales - Bryonny Goodwin-Hawkins (report)
	Municipality Tukums	Rural-Urban Business Model Profile: Valorising Food Heritage and Rural Lifestyles – Sandra Šūmane (factsheet)
	Gloucestershire	Rural-Urban Business Model Profile: Local Food Hubs - Matthew Reed (factsheet)
	Ljubljana urban region	SFSCs in Ljubljana during the COVID-19 pandemic - Janne Hemminki, Jessica Duncan, Mojca Hrabar (report)
	Styria	Rural-Urban Business Model Profile: Slow Food - Lisa

Туре	Contributing or coordinating Living Lab	Title of the contribution
		Bauchinger (factsheet)
	Robust	Rural-Urban Business Model Profile: Box Schemes - Karlheinz Knickel (factsheet)
	Robust	ROBUST Food Strategy Review - Dan Keech and Damian Maye, (report)
	Robust	Local Food Production to Boost Rural Regeneration - Simona Tondelli
	Robust	B@S Stakeholder Event Summary Graphic: Sustainable Food Systems - Norma Nardi
	Robust	Sustainable Economic Development and the Italian Network on Local Food Policies - Giampiero Mazzocchi
		fic papers were produced while the reference is held by the and will be listed in other publications.

Note: not all material produced is recorded in this table.

# 3.CoP themes and common learning

# 3.1. Summary of scoping and identification of common issues, indicators and matching (joint enterprise)

Scoping and identification of common issues, indicators and matching took more time than envisaged at the beginning. The structure of joint focused work on research objectives was kept open and dynamic so that the CoP partners could join in or drop out from the focused research groups, depending on how their research and their LL's interests developed with time. Nevertheless, several topics were found where core topic could be explored and each of the CoP partners could branch out if desired.

After Covid-19 pandemic limited face-to-face cooperation, CoP partners focused on specific topics which could be researched regardless of the limitations of the pandemic. As a result, the activities became more academic as LL involvement became limited, but still enabled exchange of experience and findings. Living labs were observing changes in the marketing approach of the small businesses but also changed behaviour of consumers. There is significant difference between the small and larger producers where larger were more reliant on logistical networks which quite often experienced disturbances by the COVID-19 outbreak. Smaller producers in shorter value chains were expecting to gain more advantage of their size and links to the local environment which did not prove true, yet. After the initial shocks caused by CIOVID 19 the markets and the logistic networks bounced back even if in the beginning it look, like the shrink of long value chains will be longer. In the initial stages of the crisis people were more interested in quality of life and their health while it remains to be seen how long the care for the quality of food and personal recreation will remain.

Common learning process ensured integration both of several LLs in the joint work in the CoP as well as of practitioners with the research partners.

# Linking expected outputs with interest of each CoP partner

The table below shows individual the Living Labs that were members of CoP, their research objectives, activities and links to other Living Labs with which they cooperated on joint research. Each living lab had different objectives, focus and activities based on needs and interests of their members which in turn influenced cooperation with different living labs in other countries. Moreover, the table also indicates how the joint results and learning were analysed and summarised in joint conclusions.

CoP Partner	Research objective	Innovation	Activities and topics in the CoP	Engagement with	Participation in other CoPs
Ede Municipality	Better insights into the opportunities/limitations of wider municipal food	A more robust and convincing - in the sense of mobilizing extra policy	PhD thesis and coordination of preparation of Snapshot on the Indicators.	Food policy Indicators     with Lucca	New business models and labour markets
	policy dashboarding in terms of regional rural- urban relations and interdependencies.	support - monitoring and evaluation of ongoing urban food policy making in Ede municipality.		Inputs on indicators for local food strategies coordinated by Gloucestershire County  Preparation of article on food policy and territorial cohesion coordinated by Mid Wales.	Ecosystem services
Gloucestershire County	In the sustainable food systems theme, the objective is to collaborate with stakeholders in food procurement contracts to identify and promote practices which reflect CE approaches to material flows, for example minimizing waste.	Experiment with strategies to reduce (materials and food) waste in the local food sector, via innovations within supply chain management arrangements. Focal point: User-centered innovation.	Public procurement and especially its facilitation through new IT called Dynamic Procurement Systems (DPS). How the school food contract wording supports local sourcing through the DPS is of particular interest as a governance tool for rural-urban food flows.	<ul> <li>developments around on-line retailing in Ljubljana,</li> <li>regional sourcing networks in Lisbon and Valencia</li> <li>municipal collaboration in Styria (for a regional trial of DPS, working across different public sector food buyers).</li> <li>Tukums plans for developing local sourcing in public</li> </ul>	Social services and public infrastructure: Styria in relation to crossmunicipal budgeting to develop what could eventually become learning on the role of anchor institutes as drivers/influencers of food sourcing. Cultural connections: interested in efforts in Lucca to develop a local food plan which centralises the importance of local food.

CoP Partner	Research objective	Innovation	Activities and topics in the CoP	Engagement with	Participation in other CoPs
				procurement.  • Strong collaboration with Mid-Wales around DPS, local food strategy development and anchor institutes.	Ecosystem services: Ede: issues of sustainable land management in relation to urbanisation and green infrastructure. Submitted a paper on rural-urban ESS governance and land management to Land Use Policy.
Lisbon region	How to enhance functional relations through processes of cocreation, learning and innovation? 1. To capture an integrated understanding and shared knowledge of local assets - learning with existing knowledge, and creation of new; 2. To stimulate mutual dependencies and learning networks through dialogues and joint initiatives for cooperation to enhance the value of local assets; 3. To create innovative institutional frameworks for improved decision-making/governance systems	Development of a Metropolitan Network of Agroparks (MNA) extended to support commercialization and restoration integrates different components and actors of the food system, providing different services in an innovative way (food supply, leisure, research, education, etc). Developing new approach to new business models that capitalize on ecosystem services using a territorial perspective, including food.	Proximity Territorial Economy based on Sustainable Food Program in Schools and Networks of sustainable initiatives motivated by ecosystem services (based on a multiple WG actor-based structure). Lisbon Food Strategy was prepared as a guide to approach food systems.	Lisbon team contributed to:  Webinar on public procurement organized by Ljubljana Urban Region,  Webinar on food strategies organized by Gloucestershire and Lucca  In addition, the team provided support to Wageningen student internship in Lisbon LL on food strategies.	New business models and labour markets: Development of new business models and the promotion of sustainable food systems in school food programmes); development of a Metropolitan Network of Agroparks (MNA) supported by a program extended to commercialization and restoration; developing new approach to new business models that capitalize on ecosystem services using a territorial perspective, including food.  Ecosystem services: Promoting knowledge on ecosystem services through to sustainable food education in primary and secondary schools; exploring a MNA spreading as nodes along the ecosystem service based Metropolitan Green

CoP Partner	Research objective	Innovation	Activities and topics in the CoP	Engagement with	Participation in other CoPs
					Infrastructure, promoting sustainable food systems; capitalizing on ecosystem services including sustainable food systems for territorial development.
Ljubljana Urban Region	Understand the needs in the region and the potential to increase the use of locally produced food in region's public institutions	1. New methods of data collection from producers and users to develop ontime information for the codevelopment of products meeting consumers' needs and 2. New forms of measuring the impact of different approaches to food chains	The main topics were public procurement innovation, local food supply chains and use of indicators. Due to Covid-19, additional research was conducted on the effect of Covid-19 on direct marketing and local food supply. The Ljubljana team prepared a webinar on public procurement and is leads the preparation of a Snapshot on similar topic.  Possible link to PhD thesis and Snapshot on the Indicators together with Lucca.	<ul> <li>Forms and approaches to public procurement with Gloucestershire, Lucca and Tukums,</li> <li>Food strategies coordinated by Gloucestershire,</li> <li>possibilities of online retailing with Gloucestershire,</li> <li>Governance coordinated by Municipality Tukums.</li> </ul>	New business models and labour markets: shifts in development strategies and their effect on rural-urban connections.  Public infrastructure and social services: analysis of open air markets, communal gardens and Demand Responsive Transport (DRT)
Lucca Province	Analyse the policy process and the governance model for the local food policy (promotion of sustainable food system, strengthening of rural urban connections) and identify how territorial planning can contribute to promoting multifunctional and sustainable agriculture	1) The food policy/governance model. Specifically, the innovation consists in experimenting a specific strategic competence that the regional law, within the institutional change occurred in Italy concerning the Provinces, has assigned to the Province itself within its territorial planning competence. The Province	Main topics covered were food policy governance and territorial planning. Lucca team focused on branding and link to Participatory Guarantee Systems(PGS), as well as on building alliances for food branding and marketing.	Lucca team coordinated the activities related to the topics of branding and PGS. In addition, in was involved in research on:  Food strategies coordinated by Gloucestershire County, Indicators coordinated by Ede, Governance coordinated by Municipality Tukums,	Cultural connections  Ecosystem services

CoP Partner	Research objective	Innovation	Activities and topics in the CoP	Engagement with	Participation in other CoPs
	and food systems in peri-urban areas	thus takes the chance (in ROBUST) to experiment and develop new skills and functions. And 2) The elaboration of Guidelines will support the improved understanding of three functional relations across urban and rural areas (i.e. sustainable food systems, cultural connections and ecosystem services). This will require new mapping tools and data collection.		Procurement Innovation coordinated by Ljubljana Urban Region.	
Mid Wales	Polycentric growth without an urban hierarchy.		Mid Wales team was involved in development of a Rural Vision for Wales and preparation of Monmouthshire food strategy. In addition, Mid Wales coordinated activities on territorial cohesion.	<ul> <li>Strong collaboration with Gloucestershire around DPS, local food strategy development and anchor institutes,</li> <li>Collaboration with Lucca on branding and PGS,</li> <li>Collaboration with Valencia on territorial cohesion</li> </ul>	Cultural connections: Collaboration with Tukums  Public infrastructure and social services: Cooperation with Metropolitan Region of Styria and Helsinki
Tukums Municipality	Expand upon the significance and popularity of Tukums market by organizing a series of events on rural-urban relations, focusing on the best ways for rural producers to present and package their products and	Innovations related to the market will be developed and the living lab will look into the possibilities of developing local certification schemes.	Gloucestershire County, Mid Wales, Ljubljana  Tukums team focused on food supply planning, public procurement and branding. In addition, the team coordinated preparation of the Governance snapshot.	<ul> <li>Food strategies         coordinated by         Gloucestershire,</li> <li>Branding, alliances and         link to PGS coordinated         by Lucca Province,</li> <li>Territorial cohesion         coordinated by Mid         Wales,</li> <li>Procurement Innovation</li> </ul>	Public infrastructure and social services: Collaboration with Graz  Cultural connections: Collaboration with Lucca, Mid Wales, Graz

CoP Partner	Research objective	Innovation	Activities and topics in the CoP	Engagement with	Participation in other CoPs
	highlight their connection to local culture and cuisine.			coordinated by Ljubljana Urban Region.	
Valencia Region	To analyse what rural-urban relations and governance models are being generated in relation to sustainable food systems, playing an active role promoting and participating in work-groups as governance bodies focused on development strategies in the field as well as specific initiatives.	1. Promotion of networking among stakeholders at rural – urban and private (business, employees, etc.) – public (regional and local governments) – social (consumers) level. 2. Exploration of potential for new cooperation activities among them. 3. Exploration of potential for new models of territorial governance among them, for example linked to some comprehensive instruments (e.g. territorial agreements) and some others (such as Plan for the Protection of the Huerta de Valencia, Smart Specialization Strategy, etc.).	You are listed as partner in Food strategies coordinated by Gloucestershire County, Governance coordinated by Municipality Tukums, Territorial cohesion coordinated by Mid Wales.	<ul> <li>Food strategies coordinated by Gloucestershire,</li> <li>Branding, alliances and link to PGS coordinated by Lucca Province,</li> <li>Territorial cohesion coordinated by Mid Wales,</li> <li>Analysis of networks of sustainable initiatives with Lisbon.</li> </ul>	Public infrastructure and social services: Collaboration with Helsinki, Styria and Frankfurt  New business models and labour markets: Collaboration with Helsinki, Styria and Frankfurt

# 3.2. Summary description and analysis of themes co-developed

The main topics addressed by the Living Labs are analysed are summarised in the table below.

Table 1 – Summary of Challenges and their Drivers and Barriers supporting the Urban-Rural linkages with sustainable food systems

	Addressing rural urban links in	terms of sustainable food systems
Topic	Drivers	Barriers
Financial support	Financial support can enable the development of new business models and governance structures. In such cases it can be function as a driver of development or improvement of new value chains. In these cases government should carefully plan public-private partnerships in order not to limit entrepreneurship.  Financial instruments may also be considered as a driver of conservation when help at preserving certain traditions, territories and products which would be extinct without support. These traditions, territories and products may later be used as an added value for other value chains like tourism (case of traditional straw hat production in Ljubljana urban region).	Even if in some cases, such as food production standards or LAGs (which also represent influential cross-sectoral instrument), the financial support (e.g. CAP pillar 2 as it only affects farmers) remains mono sectoral and does not promote the cross sectoral approach needed for the improved rural and urban synergies, some positive steps in the development of public procurement are evident, enabling the purchase of locally produced food. On the other hand these systems will need to integrate more sectors/sciences like health, logistics and similar to be more effective for the consumers and the rural and urban synergies.  More financial incentives (mainly soft measures e.g., procurement measures, producer support for navigating procurement contract readiness) will need to be invested in the promotion of the cross-sector coordination which will further enable the rural and urban synergies. This is even more needed in the development of infrastructure and services that need to address multi-use and consumer- not sector-centric orientation.
Soft instruments (e.g. food strategies)	Functional <b>networks</b> (e.g. Tukums municipality, Lucca Province) are key drivers for improvement of rural and urban synergies. Networks need to develop their own organizational formats to be able to operate sustainably.  Strategic guidance (e.g. Gloucestershire county, Mid Wales,	

	Lisbon metropolitan region, Valencia metropolitan region) may help networks to be more efficient and outcomes- focused while they need to improve linking of the food systems to other sectors.  New business models (e.g. Ljubljana urban region) are the key for the development of the functional rural and urban synergies.  In some cases, the branding and collaborative networks behind the brands (e.g. Lucca) are a key driver of the rural and urban synergies.	
Tangible assets (e.g. logistics infrastructure, market places)	Areas with developed local food systems infrastructure (e.g. Tukums municipality, Lucca Province, Ljubljana urban region) are more integrated with diverse urban consumer markets and capable of developing dynamic rural and urban synergies with urban areas where the infrastructure tends to be more advanced. A revival of open air markets (Ljubljana urban region) affects regional food flows; such markets strengthen the connection between local, largely rural producers and largely urban consumers.  As seen in the cases studied by ROBUST the developed logistics and related services enable (e.g. Ljubljana urban region, Tukums municipality) more dynamic rural and urban synergies. Governing structures need to develop functional and cross sector infrastructure to enable improved rural and urban synergies. Examples of this include metropolitan and regional food policy councils where these strive to ensure that urban food consumption supports regional rural food producers	Characteristics below the current needs disables new business models to grow(e.g. Tukums municipality, Ljubljana urban region).  Poor management(opening hours, spot allocation, hygiene) and design of public space (parking, storage facilities) needed for the daily operations of the local food markets can demotivate farmers and consumers from using this specific infrastructure (local markets)(e.g. Tukums municipality, Ljubljana urban region).  Limited public services particularly in terms of mobility and accessibility of products and services limit the development of small entrepreneurs and their small business models.
Market instruments: (public	<b>Public procurement</b> can be seen as a driver for the local food chains, but the governance structures need to actively promote the procurement of locally produced and	Current structure of food value chains (with several intermediaries and long structures) often limit the development of new business models that would be beneficial

procurement; taxes on emissions)	processed food (Ljubljana urban region with Food Market Place, Gloucestershire county with DPS).	to the rural and urban synergies (e.g. Lisbon metropolitan region, Ljubljana urban region, Tukums municipality).  There are <b>governance tools</b> (branding, DPS) that were designed to enable more dynamic short value chains, but these will need more promotion to become predominant standard procedure (e.g. Gloucestershire county, Mid Wales, Lucca Province)
Command and control instruments (legislative	Public consultation and participation are the key drivers of learning and need to be strengthened (all cases studied) in order to improve skills and knowledge of all participants (policy-makers and all other stakeholders).	In some countries the <b>legislation blocks the development</b> of the more dynamic food systems (e.g. Ljubljana urban region) due to old legislation or inability of regulators to follow the pace of the development.
and governance structures)	Some cases show (e.g. Ede) the need for the <b>development of modern indicators</b> for tracking strategies and tools for the improving the efficiency of food strategies. Lack of cross sector coordination is a weak point in the monitoring systems. In the Gloucestershire County and Mid Wales multi-dimensional procurement criteria issued by the government (DEFRA 2015; which we call the balanced scorecard) help to guide procurement officials in balancing cost against a range of other benefits offered in tenders, such as nutrition, fair-trade and waste impacts.	Vertical integration of the local food strategies to regional and national level is essential for strategies to be functional (e.g. Ljubljana urban region, Lisbon metropolitan region, Mid Wales).

# 3.3. Summary of the main results with common learning on rural-urban linkages /synergies, governance and new growth models

The table below summarizes how the main aspects of sustainable food systems support the four core themes of ROBUST project, i.e. rural-urban linkages, governance, new growth models and innovation.

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
Food strategies	For the food strategies to improve the rural-urban synergies they first need to recognise the rural-urban aspects and use their advantages for the overall approach (e.g. Gloucestershire County, Mid Wales, Lisbon metropolitan region, Ljubljana urban region, Valencia metropolitan region). Many urban municipal food strategies do in fact want to reach out into the rural peripheries and support activities such as local sourcing, because they recognise that the city's consumption behaviours can improve the sustainability of regional food systems. Not	strategies need governance models that are able to implement agreed vision; an example is Lucca Province where the food communities actually do this, and Ede which developed the concept of Food Valley. In Wales the process is more directly led by Monmouthshire council, while in Gloucestershire County it is being led by a civil-society group. Similar approach was taken in Tukums municipality where the authorities integrated several stakeholders in the management of the food market. In Lisbon the food strategy was prepared as a guide to food systems. Food strategies have an effect	development of new business models which need to be based on public-private partnership and cooperation. Relying on "business as usual" approach usually doesn't lead towards change in the value chains that is needed to achieve results (e.g. Tukums Municipality). Such innovative example may be seen within the M5 Motorway Services (example reviewed by the New Business Models and Labour Market CoP) although this example does not emerge from a food related strategy. When developing the food strategies, the innovation and new business models need to	strategies the governance structures ensure close and open public consultation among several actors of the quadruple helix in order to guarantee that the strategies will use the new business model as a prevailing structure of the strategic planning.  Strategies open the door to innovation and new business models based on public-private arrangements in order to enable the innovations that are used in value creation.
	,	systems may be viewed as a one		•

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
	because a key focus of urban food strategies is resilience (by which consistency of supply and the overcoming of food poverty is generally meant). In Tukums municipality food strategy had an integrated territorial and food system approach that addressed both rural and urban areas, food production and consumption from social, economic and environmental aspects.  By developing the rural-urban aspect the strategies may utilize the wide spectrum of the rural-urban resources to develop improved territorial vision (e.g. Mid Wales).  Food strategies are often industry sector-related and focused on agri-productivity. We may conclude that urban policies are more connective socially and environmentally, while rural policies try to	sustainable territorial	metropolitan region).  Enabling close to market research and improvement of the relations in the value chains is a key element of the	elements of sustainable development the food strategies may enable spread of innovations to different layers of society and sectors beyond agriculture, such as health and education (e.g. Ljubljana Urban Region with understanding of food impact on child development). This may have an enormous potential for acceleration of digitalization, links between academia and business, diffusion of innovation.

Supports	Rural-urban linkages /synergies	Governance	New growth models	Innovation
Supported by	/syncigles			
	address farm sector			
	performance and costs (but			
	do not directly think about cities).			
	Better rural-urban synergies			
	might be achieved through			
	the regionalisation of food			
	strategies, or at least the			
	drawing together of rural			
	and urban objectives in			
	ways that acknowledge both			
	sets of concerns. By accepting the rural-urban			
	view the food strategies are			
	not only widening the			
	territorial scope but also			
	improve the positive social			
	impact (Gloucestershire			
	County, Mid Wales, Lisbon			
	metropolitan region,			
	Ljubljana urban region,			
	Tukums municipality, Lucca			
	Province, Valencia			
	metropolitan region, Ede Municipality).			
	Wallerpality).			
	When strategies <b>open their</b>			
	view and actions towards			
	rural-urban synergies more			

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
	innovation and new business models are possible (Gloucestershire County, Mid Wales, Ljubljana urban region, Tukums municipality, Lucca Province, Valencia metropolitan region, Ede Municipality).			
Actors/stakeholders	They may influence more sectors and improve the cross-sector coordination (Mid Wales, Lisbon metropolitan region, Lucca Province, Valencia metropolitan region).	The strategic vision concerns long list of stakeholders who need to develop trust and improve their operations (business) (e.g. Ede municipality, Mid Wales, Ljubljana urban region). When addressing the food systems, the strategies also need to address other related sectors (e.g. mobility, communication, environment).  Food strategies require new approach to public consultation and co-creation of implementing arrangements (e.g. Gloucestershire county, Mid Wales, Lucca Province).	develop the governing capacity and ability to form collaborative platforms among business and pubic actors to engage in value chains (being food systems actors (engaged food supply chain actors) which takes time and resources (e.g. Ljubljana urban region, Tukums municipality).	Actors and other stakeholders on all levels promote entrepreneurship and private sector engagement which improves entrepreneurship skills.  Actors can develop new forms of climate-neutral economy which will foster local energy transitions through local food value chains based on new business models.

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
			chains on individual base and therefore a coordinated collective action (like, local branding, joint supplies, open public selling points like Ljubljana Urban Region's farmers' markets, Ljubljana Food Marketplace as a speed dating-like networking event for producers and consumers, Tukums food market or a collective shop) is needed that pool their resources together.	
			Active management and arrangements of the networks around joint tools and strategies (e.g. Lucca Province, Tukums municipality; agricultural trade unions in Valencia) are the key for the success of the specific tool used for the improvement of the food systems.	
Information (data, indicators, and evaluations)	Active development of rural- urban synergies is not possible if there is lack of data and indicators (e.g. Ede Municipality, Ljubljana urban region, Valencia	to enable the development of informative and performance-focused indicator systems and	The data is essential for the development of new business models and for the innovation and needs to be generated, managed and available (e.g. Ljubljana urban region, Ede	The data will enable the developing of the evidence based decision making and increased precision in the food value chains (food waste, quality of diet for

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
	metropolitan region) as there is no evidence that would enable steering the development to better management and governance.	evaluation of the tools for rural urban linkages (e.g. Mid Wales, Ljubljana urban region, Ede Municipality). For example, in Ljubljana urban region the local authorities and Regional Development Agency could improve public procurement and develop new forms if information on public institutions' needs and local supply, as well as health effects of school meals based on local food were monitored and readily available.  Proper management of the data and their availability needs to be assured to maintain the necessary transparency and assure public participation. Ede Municipality had intended to develop and maintain a multicriteria dashboard for food performance the results of this initiative are to be observed in future. In Wales, Monmouthshire county initiated a comprehensive review of food producers, estimated production capacity and potential local market	Additional motivation for Tukums municipality's decision to take over Tukums food market was the conclusion from the municipality's local consumers' survey that revealed that Tukums market is a central place for local	operation through rural- urban partnerships, ensure

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
		opportunity. In Gloucestershire, an analysis of the economic value of the food and drink sector was commissioned by the Local Economic Partnership. The ROBUST partners have been working with a number of external partners to understand the data needed to encourage producers to work with the South West Food Hub.		
Specific tools tested in LL under the CoP:				
Public procurement	When public food procurement processes take into account the rural urban synergies, they are a successful tool in developing more synergies. This needs to further evolve from promotion campaigns usually set up by national governments to real/daily food supply to schools and kindergartens to larger consumers. With this many suppliers fail to have enough capacity, or their logistics is weak. These shortages need to be addressed by modern	Governance structures need to assure necessary timely regulation of issues under the public law (e.g. public procurement procedures) but along this the governance structures need to assure proper monitoring of the quality of food and monitoring to stable delivery of food to public institutions.  The future development will require more attention to the healthy nutrition for children, minimization of waste from school meals, and improved logistics to enable timely and safe	food procurement processes	Public procurement can be seen as a driver for the new data driven and user lead applications for better sales and distribution of local food.  This will improve the whole value chain (from production, processing to packaging and waste) which will set the scene for the circular economy models.

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
	strategies, new business models and financial incentives.  As seen in many cases studied the public procurement has evolved and has many forms (like Dynamic Procurement System - DPS in Gloucestershire County) but the system still needs improvements which will more intensely apply knowledge from different sectors food and non-food studies (impact on the environment, waste, nutrition and health, logistic, ICT).  For example, nutrition is very closely monitored in Gloucestershire County. Catering managers are especially worried about their safeguarding obligations in relation to allergies. The Food for Life scheme includes children and	negative effects of the public procurement systems. This includes environmental effects, an issue addressed by the EU Farm to Fork Strategy and the European Green Deal.  Constant management of the networks behind the food procurement systems need to address supply and demand and needs to address common goals and operations.  Procurement of food for meals in schools and kindergarten is relatively simple and effective form of public procurement (easier to organize compared to hospitals, retirement homes and	DPS is a major breakthrough in logistics management for small-scale and seasonal producers which was initially	

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
	their parents in menusetting. But this situation is not common across the EU and there is a very strong perception among catering managers that either cost or regulations restrict pro-local, or pro-sustainable purchasing. Probably a way to overcome this would be to ensure new technologies and logistical innovations such as the DPS are trialed and adapted to maximize their usability within a lowbudget, high-liability context.	Sustainable school food procurement Lisbon team is preparing of a policy brief on public procurement in schools based on quality, sustainability and proximity criteria.  Public procurement may help in the post-Covid-19 recovery (Gloucestershire, Valencia, Ljubljana).		
• Branding	Branding is seen as other possible tool for the improvement of rural-urban synergies. Branding has evolved from marketing campaign to a full flagged partnership approach where	structure being able to assure standardisation, quality, origin and traceability questions are respected among members of the brand.  Associations behind the brands are a key player but they need to cover all partners in the branding process and operation from		s models. They will drive new management and blockchains, s in terms of packaging and

Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
		to sustain integrity and durability		
• COVID-19	COVID-19 had an obvious impact on the society and the environment. But it remains to be seen how many of the patterns developed during the pandemic will remain active	inability of the governance structures to be ready to timely	driver of innovation in most strata of societies, some motivated by government	approaches were used to address the logistics and distribution issues that arose

after the new normal is reached. Pandemic clearly pushed the development of the short value chains and developed new business opportunities for local farmers. On the other side several producers as they were not able to sell due to overspecialisation or dysfunctional logistics. The	Supports Supported by	Rural-urban linkages /synergies	Governance	New growth models	Innovation
pandemics showed how important it is to observe the rural-urban links in terms of different dimensions of food systems from logistics, consumption, changes in access to markets and others. This calls for closer look to the rural-urban links in normal times in order to improve the resilience.		reached. Pandemic clearly pushed the development of the short value chains and developed new business opportunities for local farmers. On the other side the pandemics also hindered several producers as they were not able to sell due to overspecialisation or dysfunctional logistics. The pandemics showed how important it is to observe the rural-urban links in terms of different dimensions of food systems from logistics, consumption, changes in access to markets and others. This calls for closer look to the rural-urban links in normal times in order to	going to schools for longer period. This requires more intense understanding of the needed governance structures to enable swift data collection, stakeholder engagement and development and implementation of measures to mitigate impact of the crisis. Public procurement has potentially significant post-COVID agri-sector recovery, due to the large volumes of food required in		

Source: own research

# 4. Monitoring and evaluation of learning

# 4.1. Summary of key data and findings in terms of:

Assessment of the methods used and the usefulness / limitations of the toolkit

The findings on the methods used and their usefulness are summarized in the table below.

Paper/document	Current use	Possible improvement
Snapshots	Information, contacts, practices, practitioner oriented. The snapshots tools used in the process were to date used for reviews prepared by one or the other CoP partner.	Use the Snapshots to prepare joint papers to review the practices and give practitioners possibilities to exchange information and experience. Joint papers of partners in each snapshot would improve the information on the specific topic and give more comprehensive information on what to further explore.
Thematic briefings	We intended to use Thematic briefings to cross cutting information from practitioners with scientific background and analysis. Thematic briefings were planned to be developed by CoP coordinators but was altered to CoP members with relevant expertise and activity which would improve the scope of the Thematic briefings and make it more scientific research oriented.	Currently no Thematic briefings have been developed yet, so it is too early to comment.  But the Food Strategy Review prepared on the 11 <sup>th</sup> September 2019 could be easily developed to the level of use Thematic briefings with adding additional examples from (Snapshots) to be provided by partners in the Food strategies Tukums Municipality, Lucca Province, Ede Municipality, Gloucestershire County, Mid Wales, Lisbon Region, Valencia Region.  Additional value would be added by a "how to" manual.
Article	Based on scientific work and findings; articles with scientific value would be cross fitted with practitioners' needs and topics.	Publications by individual partners. As the focus was on preparation of snapshots and the cancellation of in-person meetings reduced the opportunities for joint discussions and exploration of ideas, the CoP members published articles on their own or in smaller groups. More effort should be put in regular online meetings for joint brainstorming and preparation of articles for publication.
Webinars	To date one webinar was organized for the internal CoP exchange on the topic of the Food Strategy Review.	Discussion on the topic was rather scarce which calls for more preparation of partners for the discussion. In addition, in order to make prost production of the webinar to the level of publicly available material the presentation and discussion experience for the user needs to be improved by adding more pictures, video clips, clear messages and as discussed before prepared discussion among partners.
Mailing list	All participants in CoP information sharing are listed	Mailing list could be expanded, or an additional, broader mailing list could be prepared to be also used for larger group of participants, i.e. including the level of LL members.
Database - SharePoint	Used only by CoP coordinator	Some of the working versions of the documents could be posted.

### The facilitation process (what worked / did not)

The facilitation process relied on email, Skype and later Zoom communication with periodical meetings of the CoP partners along the ROBUST planned events such as Partners' Meetings. Communication from the CoP coordinators should be further strengthened despite weak feedback.

On the other hand, smaller groups working on specific topics (e.g. food strategies, public procurement) formed quickly and worked efficiently with the common goal of Snapshot preparation, comparison of research results and article preparation. While these groups worked independently, there was significant overlap as individual members were involved in several such groups. As a result, most of the CoP members were aware of the topics and results of other groups.

Communication between the CoP members on their respective LLs, between the individual LLs and between CoP members and the CoP coordinators could be improved to help with timely developments and provide support where and when necessary. Inclusion of other LL members in communication could be particularly helpful in the analysis and comparison of examples.

The Living Labs were possibly too optimistic in the beginning when setting the research agenda by selecting a variety of research interests to be put in the workplan. Being more selective in the beginning and focusing only on few issues might have taken the CoP further and deeper into specific topics. Such approach may have resulted in the weak resilience of the teams to the COVID-19 crisis outbreak which impacted the planned activities of the Living Labs.

While each of the CoP members nominated a CoP coordination member, some of the teams experienced changes and in some cases the nominations were not made in a timely manner. In some cases the practice partners were not as active as their research partners in Living Labs which lead to a bit more academic approach and less focus on providing and testing practical solutions.

# Evidence of learning processes via the CoP (summary of monitoring and evaluation data collected)

Most of the CoPs partly deviated in their activities from their Research and Innovation Agenda. Amendments were made on the basis of joint identification of topics that could be jointly explored as new information, concepts and ideas emerged. Thus, the deviations can be seen as adjustments to the potential of the ROBUST partners' contribution.

In addition, Covid-19 pandemic disrupted the core activities as planned for 2020 and approaches and methods had to be adjusted, resulting in delays. While the pandemic brought unprecedented levels of remote working and online cooperation at the global level, the level CoP activities decreased, as the level of response declined and scheduling of

meetings became more difficult. This might be partly a result of oversaturation with online presence and more difficult juggling of work and private life.

### 4.2. Conclusions and recommendations

ROBUST brought together **research and practice partners** and this give the LL a great opportunity to address the interesting issues of rural-urban linkages/synergies, governance and new growth models in sustainable food systems. Given this opportunity this needs to be further explored in order to assure practice partners are stronger in joint definition of the research problems and their needs, while research partners should be able to help with their knowledge and research skills.

Research has provided valuable exchange of experience and analysis of common issues which might help practitioners to solve identified problems. CoP activities hopefully also helped to research partners to research relevant issues and to provide practical solutions for improvement of efficiency of the rural — urban relations and sustainability of the food systems in the participating regions.

ROBUST project brings together **research and practice partners** from all over Europe which gives a great opportunity to learn and exchange experience and information. This opportunity needs to be further exploited with more internal LL and CoP exchange that would strengthen mutual learning processes.

## 4.3. Rural-urban linkages /synergies

Many urban Municipal Food Strategies want to reach out into the rural peripheries and support activities such as local sourcing as they recognize that the city's consumption behaviors can improve the sustainability of regional food systems. To improve the rural-urban synergies they will need to recognize the rural-urban aspects of mutual impact and utilize the wide spectrum of the rural-urban resources to develop improved territorial vision. Better rural-urban synergies might be achieved through the regionalisation of food strategies, or at least defining together the rural and urban objectives in ways that acknowledge both sets of concerns. When food strategies open up their vision and actions towards rural-urban synergies, increased innovation and more new business models can be achieved but the active rural-urban synergies aren't possible if there is lack of data and indicators needed to enable governance and innovation.

When public food procurement processes take into account the rural urban synergies, they are a successful tool in strengthening the synergies and developing new ones. Their approach needs to further evolve from promotion campaigns usually set up by national governments to real/daily food supply ranging from to schools and kindergartens to larger consumers. However, many suppliers fail to have enough capacity, or their logistics is weak.

Branding as other possible tool for the improvement of rural-urban synergies has evolved from marketing campaigns to a full flagged partnership approach where local and regional brands cover issue of standardisation, quality, origin and will in next period play a central role in traceability issues. The local and regional brands bring together producers, consumers and regulators which play an important role in the rural-urban synergies, shifting away from the outdated view of seeing rural as a food producer and urban as a consumer.

#### 4.4. Governance

To be functional, the food strategies need governance models that are able to implement agreed vision. To do so they need to have an effect beyond agriculture, as food systems may be viewed as a one of the key elements of sustainable territorial development.

The strategic vision concerns long list of stakeholders who need to develop trust and improve their operations (business) but also other related sectors (e.g. mobility, communication, environment). To improve the urban-rural relations the food strategies require new approach to public consultation and co-creation of implementing arrangements that will enable the development of informative and performance-focused indicator systems and enable monitoring of the data.

Governance structures need to ensure necessary timely regulation of issues under the public law (e.g. public procurement procedures) but along this the governance structures need to ensure proper monitoring of the quality of food and monitoring to stable delivery of food to public institutions.

### 4.5. New growth models

New business models need to be based on public-private arrangements for innovation and can be the forerunner of the transition. Close to market research and improvement of the relationships in the value chains is a key element of success which needs to be managed and strengthened.

Active management and arrangements of the networks using joint tools and strategies are the key for the success of the specific tools used for the improvement of the food systems. The data is essential for the development of new business models and for the innovation and needs to be generated on time, managed and made available.

## 4.6. Innovation

During the development of food strategies the governance structures need to ensure open public consultation performed in close cooperation with several actors of the quadruple helix to ensure that the strategies will use the new business models as a prevailing method of the strategic planning.

Strategies need to open the door to innovation and new business models which are public-private arrangements in order to enable innovation that leads to value creation.

Food strategies have an effect beyond agriculture. They can be viewed as a one of the key elements of sustainable development, thus the food strategies may enable spread of innovations to different layers of society and sectors beyond agriculture, such as health and education. This may have an enormous potential for acceleration of digitalization, links between academia and business, diffusion of innovation.

The data will enable development of the evidence based decision making and precision in the food value chains (food waste, quality of diet for children etc.).

## 4.7. COVID-19

COVID-19 had an obvious impact on the society and the environment. However, it remains to be seen how many of the patterns developed during the pandemic will remain after the new normal is reached.

Pandemic clearly pushed the development of the short value chains and developed new business opportunities for local farmers. On the other side the pandemics also hindered several producers as they were not able to sell due to overspecialization or dysfunctional logistics. The pandemic showed how important it is to observe the rural-urban links in terms of different dimensions of food systems from logistics, consumption, changes in access to markets and others. This calls for a closer look to the rural-urban links in normal times in order to improve the resilience.

The pandemic showed the inability of the governance structures to timely address the impact of the pandemic such as breakdowns of logistic networks, necessary social safety for producers and health issues of children out of schools for longer period. This requires more intense understanding of the needed governance structures to enable swift data collection, stakeholder engagement and development and implementation of measures to mitigate impact of the crisis. Public procurement has potentially significant post-COVID agri-sector recovery, due to the large volumes of food required in the public sector.

## 5.Annex

# 5.1. Example: Minutes of the meeting of the CoP during the 5<sup>th</sup> Consortium Meeting in Riga

## <u>CoP members</u> present at the discussion<sup>1</sup>:

- practice partners: Welsh Local Government Association, Province of Lucca, Valencian Federation of Municipalities and Provinces, Tukums Municipality (represented by science partner), Regional Development Agency of the Ljubljana Urban Region, Commission for Regional Development and Coordination of Lisbon and Tagus Valley,
- scientific partners: Aberystwyth University, Baltic Studies Centre (BSC), University of Gloucestershire – Countryside and Community Research Institute, University of Valencia, Oikos, University of Lisbon - Instituto Superior Técnico, University of Pisa, University of Firenze
- ICLEI Local Governments for Sustainability, European Secretariat (ICLEI)
- Peri-Urban Regions Platform Europe (PURPLE)

#### Introduction

In the introduction, Jurij Kobal from Oikos briefly presented a brief overview of conclusions and agreements from 4<sup>th</sup> Consortium Meeting in Helsinki. He reminded the participants of the ROBUST overarching topics (Rural urban relations, Governance, New growth models)to which CoP added the topic of monitoring in Helsinki, reminding the participants of the impacts that ROBUST plans to achieve. At the end, Jurij presented the achievements of CoP so far in terms of:

- Snapshots,
- Thematic briefings,
- Articles,
- Webinars.

A discussion followed on cooperation and the characteristics and differences between the snapshots, thematic briefings and articles. Some participants commented on their experience. It was stressed that collaborative effort is needed.

### Topics of mutual engagement among CoP members (Agreement # 1 from Helsinki)

The three topics of mutual engagement determined in Helsinki are Innovation and policy, Territorial development and Food in organizations. All the activities of CoP members include the topics and through collaboration it will be possible to build on shared experience and differences.

<sup>&</sup>lt;sup>1</sup>Individual participants are listed at the end of the minutes.

## Tools for sharing the experiences among CoP members (Agreement # 2 from Helsinki)

## **Snapshots:**

In Helsinki meeting it was agreed that the Living Labs are going to provide Snapshots on interesting practices, innovation, governance and new growth models among the CoP participants. The Snapshots will be used to produce Thematic Briefings as a collection of different practical experiences of LL and as a base for the further work of the CoP.

3 snapshots were planned by the end of 4th quarter of 2019.

Topic	Partners	Coordination	Implemented (by end of October 2019)	Agreed tasks
Food strategies (preparation, participation, implementation)	Tukums Municipality, Lucca Province, Ede Municipality, Gloucestershire County, Mid Wales, Lisbon Region, Valencia Region	Gloucestershire County	Prepared Food Strategy Review (11th September 2019)	included in the snapshot.
Indicators	Ede, Lucca	Ede	PhD thesis is being prepared. From this snapshot will be extracted.	Snapshot will be prepared once the PhD thesis is finished.
Branding, alliances, and link to PGS	Lucca Province, Ljubljana Urban Region, Tukums Municipality, Mid Wales	Lucca		A snapshot will be prepared that will provide the basis of a scientific article. Instructions for contributions will be prepared by mid-December and sent to the LLs, with their contributions expected by end of January (coordinator: Sabrina Arcuri).

Topic	Partners	Coordination	Implemented (by end of October 2019)	Agreed tasks
Governance	overnance  Mid Wales, Lucca Province, Valencia Region, Tukums Municipality, Lisbon region, Ede Municipality		/ Instructions for contributions will be prepared December 2019 and sent to the LLs (coordinate Grīviņš).	
Territorial cohesion	Mid Wales, Valencia Region, Tukums Municipality, Lisbon region	Mid Wales	A snapshot on PROVE box scheme of locally yielded seasonal food products was prepared by Lisbon LL.	Lisbon and Wales LLs will prepare an outline and instructions for contributions of the LLs by end of December 2019 and send them to the LLs (coordinator: Michael Woods).
Procurement Innovation	Ljubljana Urban Region, Lucca, Tukums, Wales, Gloucestershire County	Ljubljana Urban Region	Draft idea to partners was sent for joint preparation of the snapshot.	<ul> <li>Lucca LL and Wales LL will send their comments on the draft snapshot.</li> <li>Wales LL was added to the partners interested in procurement innovation.</li> <li>An updated snapshot will be prepared by mid-December 2019 (coordinator: Jurij Kobal).</li> </ul>

## **Thematic Briefings**

The thematic briefings correspond to the case studies discussed in the thematic groups and will be used to help the CoP research partners to identify potential topics and material for the preparation of the research articles and research case studies depending on the need and interest.

The discussion on thematic briefings revolved around finding common connections between the different practices and experiences of project partners (including experience from other projects) and coming up with new findings. The dynamic procurement system used in UK was that will be presented at the conference in Lucca was given as an example.

Topic	Coordination	Implemented (by end of October 2019)	Agreed tasks	
Innovation practices that LLs are using	СоР	· ·	To be coordinated by CoP coordinators.	
or have identified during their work	coordinators	Consortium meeting in Riga		
Branding and cross sectoral practices		the 1 <sup>st</sup> thematic briefing	The thematic briefing will be prepared on the basis of	
(branding practice, cooperation of		would be prepared.	the webinar on branding. Lucca LL will prepare an	
authorities/sectoral institutions)		None of the Thematic	overview of their ideas and examples by the end of	
		Briefings was developed yet	January and send them with the material from the	
		as work on snapshots was	webinar and a request for input to CoP members	
		late and they are to present	(coordinator: Francesca Galli).	
Public procurement and food systems		a mix of research and	The "How to" guidelines on preparation of food	
(fostering the sector, governance and		practical work.	strategies will be prepared as a thematic briefing	
coherent policymaking, synergies)			(coordinator: Jurij Kobal).	
			A thematic briefing on dynamic procurement systems	
			will be prepared instead of public procurement (team:	
			Bryonny Goodwin-Hawkins, Daniel Keech, Deserie	
			Mansfield). The briefing will link strongly to the topics	
			of the CoP New Business Models.	

## **Articles**

The material for articles is being developed along with the preparation of snapshots, thematic briefings and webinars. Some new ideas and topics might appear, such as proximity economies was mentioned, for example. Cooperation with other CoPs might also yield new ideas and inputs for article preparation. Publishing of the articles will be decided by the contributors.

Topic	Partners	Coordination	Implemented (by end of October 2019)	Agreed tasks
Food policy indicators	Ede Municipality, Lucca Province, Ljubljana Urban Region	Ede		CoP coordinator will check with Ede LL and agree how to proceed.
Comparison of local food strategies	Mid Wales, Lisbon Region, Tukums Municipality, Lucca Province, Ede Municipality, Gloucestershire County, Valencia Region		2020 and discussion at Lucca in April 2020 is planned.	A scientific paper will be prepared by February 2020, based on the work done during the preparation of snapshot and webinar as well as further research (coordinator: Daniel Keech).
Food policy and territorial cohesion	Mid Wales, Valencia Region, Tukums Municipality, Lisbon region	Mid Wales		Article to be prepared following the preparation of the snapshot. Tukums LL and Lucca LL will provide information from their snapshot and webinar (coordinator: Michael Woods).

Agreement # 1: CoP members will work in close cooperation and will intensify the preparation of snapshots, thematic briefings and articles. Most of the work will be finished by the time of the conference in Lucca in April. Thus, further discussions on contributions and finishing can be held in Lucca.

## Joint events for sharing experiences among CoP members (Agreement #3 from Helsinki)

A **trip to Tukumsfor the CoP to meet the local experience** and local LL members was successfully organised in cooperation with CoP Cultural Connections during the Consortium meeting in Riga.

An exchange event for practitioners is planned at the conference in Lucca where LL members will participate in conference activities. ICLEI is coordinating the participation.

#### Webinars:

The issue of GDPR was raised in relation to publication/access to the webinar materials. The question is related to use of video material recorded with LL members or others that was done as study material without intention and thus without permission for widespread publication.

Topic	Coordination	Implemented (by end of October 2019)
Branding	Lucca	Organised as planned on 29 October 2019 in cooperation with Cultural connections CoP.
Public procurement and impact on local food chains	Ljubljana urban region	Planned for October 2019, but a different approach was decided where all partners are expected to collaborate (coordinator: Jurij Kobal).
Local food strategies	Gloucestershire County	Webinar planned for September and organised on 3 October 2019

The webi<u>nar on public procurement</u> will be organised early in 2020 with contribution of other CoP members. The dynamic procurement system will be one of the topics/a case study. Mid Wales LL will provide information on their experience with the procurement of "public plate", while Lucca LL will provide inputs based on the information collected during the preparation of the webinar on branding.

Agreement #2: ICLEI will check the GDPR issue and possibilities for sharing the webinar materials. The materials from the webinar will be edited into a short video and transcription and will be published (Local food strategies; coordinator: Daniel Keech) and/or uploaded as highlights on the SharePoint (Branding; coordinator Giovanni Belletti).

### Bilateral and trilateral meetings

No bilateral or trilateral meetings were organised so far.

Topic	Partners	Location	Agreed tasks
Local food partnerships	Ljubljana urban	Lucca	Meeting will be
and education for food	region – Lucca, LL		organised during
	partners to meet LL		the conference in
	partners		Lucca.
Monitoring of local food strategies and local food systems	Ljubljana urban region — Ede, LL partners to meet LL partners	Ede, Wageningen	To be agreed.
Gloucestershire	Food Summit	Gloucestershire	Ongoing
County, Mid Wales		County, Mid Wales	coordination.

Agreement #3: Bilateral and trilateral meetings will be further coordinated and organised by the CoP members.

## Bringing together the results of thematic workshops

An overview of the results of the thematic workshops was done and topics that are important for CoP Sustainable Food Systems were identified. CoP is already dealing with numerous topics that were identified in the thematic workshops and could thus contribute significantly.

Agreement #4: An overview and synthesis of information and findings of CoP will be prepared on the basis of the WP4 Report, thus we will wait until it is prepared.

## **Cooperation with other CoPs**

Topics such as public procurement and branding overlap with the activities and topics of CoP New Business Models. The topic of food strategies is important also for the CoP Ecosystem Services where Lisbon, Lucca and Valencia are taking care to provide the necessary input.

There are several topics that are overarching all the CoPs, such as the issue of governance (a horizontal issue of ROBUST) and mapping/indicators on which Ede LL is focused and Gloucestershire LL has done some initial work.

Agreement #5: CoP members will take care of cooperation and synergies with other CoPs in which they participate during all activities for CoP Sustainable Food Systems (e.g. snapshot preparation, thematic briefings etc.).

## Working arrangements among CoP members (Agreement #4 from Helsinki)

- Communication among CoP members will continue to be done over e-mails and other digital means of communication (Skype, webinar platforms and similar).
- The level of feedback to the CoP coordinators is sometimes low, possibly because of shared responsibility of LL members and relying on each other.
- Sometimes response is not provided because the communication (email questions, requests) are too generic or because practice partners might think it addresses the scientific partners only.

Agreement #6: Each LL will appoint a member to be in charge of communication with CoP coordinators so that at least one member from each LL will respond timely to the communication and requests from CoP coordinators. In their communications, CoP members will specify clearly if they need information/feedback from practice partners.

Minutes taken by: Mojca Hrabar and Jurij Kobal

Participants of the meeting of the Community of Practice Sustainable Food Systems at ROBUST 5th Consortium Meeting, Riga, 8November 2019:

- Province of Lucca: Maria Pia Casini
- Valencian Federation of Municipalities and Provinces (FVMP): Sergio Mensua, Gonzalo Albir
- Gloucestershire County Council: Carey Stevens
- Welsh Local Government Association (representative from LL): Deserie Mansfield
- Regional Development Agency of the Ljubljana Urban Region: Katja Butina
- Commission for Regional Development and Coordination of Lisbon and Tagus Valley: Alexandra Almeida
- Wageningen University & Research (also representing Municipality of Ede): Jessica Duncan, Henk Oostindie
- University of Gloucestershire Countryside and Community Research Institute, Daniel Keech
- Aberystwyth University: Bryonny Goodwin-Hawkins, Michael Woods
- University of Lisbon Instituto Superior Técnico: Isabel Loupa Ramos
- University of Pisa: Francesca Galli
- University of Firenze: Sabrina Arcuri, Giovanni Belletti
- University of Valencia Research Institute for Local Development: Irune Ruiz
- Baltic Studies Centre: TalisTisenkopfs, Sandra Šumane, MiķelisGrīviņš
- Oikos: Jurij Kobal, Mojca Hrabar
- Peri-Urban Regions Platform Europe (PURPLE): Paul Van Der Sluys, Vincent O'Connel
- ICLEI Local Governments for Sustainability, European Secretariat (ICLEI): Allison Wildman