Governance Arrangements for Rural-Urban Synergies



Synthesis Report WP5 - Deliverable 5.4

Authors: Hilkka Vihinen, Michael Kull & Ulla Ovaska

Natural Resources Institute Finland, Latokartanonkaari 9, 00790 Helsinki, Finland

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List of abbreviations

AT Austria

BE Belgium

BM Business model

CALM Municipal Food Council of Valencia

CAP The EC Common Agricultural Policy

CE Circular Economy

CLLD Community-led local development

CoP Community of Practice

CSO Civil society organisation

DE Germany

DK Denmark

DPS Dynamic Procurement System

EAFRD European agricultural fund for rural development

ES Spain

ESS Ecosystem services

EU European Union

FI Finland

FLAG Fisheries local action group

FR France

GI Green Infrastructure

GA Governance Arrangement

H2020 Horizon 2020 research program of the EU

IT Italy

LAG Local Action Group

LEADER Liaison Entre Actions de Développement de l'Economie Rurale = Links between the rural economy and development actions

LL Living Lab

LV Latvia

MAL *Maankäytön, asumisen ja liikenteen yhteistyö* = cooperation on land use, housing, transport in Helsinki Region

NFM Natural Flood Management

NGO Non-governmental organisation

NL The Netherlands

OECD Organisation for Economic Cooperation and Development

PT Portugal

REKO *Rejäl konsumtion* = Fair consumption, selling and buying local food directly from producers to consumers

RMA Regional Management Agency

R-U Rural-urban

SDG Sustainable development goal

SFSC Short Food Supply Chain

SI Slovenia

SUDS Sustainable Urban Drainage Schemes

TEP Territorial Employment Pact

UK United Kingdom

UN United Nations

UNESCO The United Nations Educational, Scientific and Cultural Organization

WP Work Package

WS Workshop

Executive summary

This report presents the approach and results of studying rural-urban governance arrangements (GA). The report also reflects on the process of establishing, developing and upholding such arrangements and sheds a light on the limits and opportunities of different types of GAs.

This synthesis report provides an overview of effective governance arrangements for different settings and reflects on the replicability and transferability of effective GAs. More specifically, the report analyses to which extend the GAs in 11 ROBUST Living Labs (LL) include elements of network governance, what are their opportunities and limits in terms of rural-urban synergy, and which solutions or experiences would be worth sharing more widely.

Regional, national and European workshops have been platforms for joint reflecting on, co-creating and advocating network governance arrangements. Thus, in addition to studying these arrangements, collecting data and experiences, the events have been designed also to facilitate the process of building GAs linking rural and urban areas. Co-production with practice partners and other stakeholders is in the core of ROBUST. Consequently, the main material are the governance arrangements in ROBUST's own 11 Living Labs (described briefly in Appendix 1) and the related Community of Practices (CoPs), serving as evolving real-time case studies. In addition, we have collected information, as well as compared and shared findings with experienced external stakeholders.

When studying governance arrangements in ROBUST, we perceive rural-urban relationships as a two-way, co-constituted relationship, and highlight the agency of rural actors. The localities studied include both concrete communities, and various social, economic and political sites and processes, tools, flows and interactions, which go beyond their own territory. During the course of the whole ROBUST project, the learnings of experimenting in the eleven LLs (WP3) and engaging with ongoing national, EU and global policy discussions (WP6), it became evident that essential rural-urban governance arrangements are evolving around different and interlinked foundations for rural-urban wellbeing. Wellbeing economy offered us an up-to-date lens through which to identify and structure promising governance arrangements for rural-urban synergies on the one hand, and to pinpoint limits and opportunities, on the other hand.

Network(ed) governance has been used here as an analytical tool to study the characteristics of governance arrangements in the 11 ROBUST Living Labs (chapter 2). The evidence from the LLs but also from other experiences confirms that there is no single form of effective governance arrangement for rural-urban synergy. A well-functioning arrangement is always embedded in its purpose and context. However, some key characteristics can be identified. An effective GA most often embraces multiple levels of governance and involves multiple actors. The public sector and/or local government role is crucial. An efficient governance arrangement can evolve both top-down or bottom-up. However, if it is a top-down initiative, attention should be paid to balanced participation building, as rural-urban inequalities are deeply entrenched. GAs should reflect the needs of all areas and serve both. Establishment and manifestation of the governance arrangement may take years. It also came out that influencing existing networks was most effective.

Key messages of the network governance analysis indicate that elements of network governance are important for effective GAs. These imply a negotiated, multi-stakeholder process; a collaborative system of decision design and decision making, characterized by significant degrees of self-governing; with attendant resources, commitments and shared power; sufficient common cause; and a pragmatic understanding that to achieve the needed capacity and agency requires appropriate institutional and organizational arrangements beyond that of government. These elements improve the effectivity of a mature arrangement, but they are also needed during the establishment and development process of any GA.

A common goal seems to be the easiest beneficial GA element to realise, whereas more effort needs to be taken in order to reach the autonomy to make decisions, responsiveness to both rural and urban communities, a situation where all parties commit resources, and a situation where all arrangements are as equal and inclusive as possible.

Our analysis on the limits and opportunities of governance arrangements (chapter 3) is structured around five dimensions of the wellbeing economy (presented also in WP3 synthesis report):

- social services
- proximity
- circularity
- ecosystems and
- heritage / culture.

In each dimension, we look at encountered limits and present potential and actual opportunities to overcome these limits. The ROBUST and other selected GA examples in each wellbeing dimension are visualised on maps and summarised in tables.

Some of the limits and opportunities are of a more general nature (presented in chapter 3, and chapter 4 / table 8), while others are more place specific. (Elements of) the place-specific examples are also potentially transferable, and the lessons learned are valid for other places as well. Replicability always requires customisation and adjustment to the specific local contexts in which a practice or tool shall be implemented. The analysis is subdivided into several interlinked subjects: governance collaboration and coordination (local, sub-national, national and EU level), funding and finance, cross-sectoral connections, synergies and integration, as well as data and knowledge. Chapter 4 departs from the key findings of chapter 3 and discusses the replicability and transferability of the effective governance arrangements.

Key learnings - in addition to the supportive institutional environment and the network governance model - are that territorial co-ordination capacity, creative awareness of values and local assets through education and new business models are enablers of effective GAs. We can transfer and replicate the principle, but not the application. It is essential to link the GA topics to shared responsibility across rural and urban spheres and to underline the rural-urban linkages lens. Finally, it is all about managing and governing the relationships and interactions between urban and rural areas, their formal and informal alliances and to take up the innovative governance arrangements, which make lifestyles and economic systems more environmentally and socially sustainable, and thus contribute to the wellbeing economy.

In conclusion, the synthesis represented in this report provides an overview of elements for and examples of effective governance arrangements. We hope that the report will be able to concretize the main principles of effective governance arrangements in rural-urban synergies, as well as inspire and encourage such activities that lead to more robust and durable interlinkages between rural and urban areas.

1 Introduction

This report constitutes Deliverable 5.4 of ROBUST and synthesises the results of studying rural-urban governance arrangements (GA). The report also reflects on the process of establishing, developing and upholding such arrangements and sheds a light on the limits and opportunities of different types of GAs.

1.1 Introducing ROBUST framework for studying effective governance arrangements

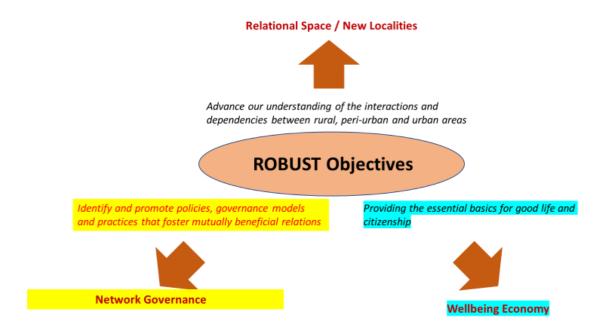
Both rural-urban interaction and governance arrangements are abstract and complex phenomena. There is no single, given or commonly shared way of capturing them. The WP5 approach has evolved as a result of conceptual and empirical findings and development taken place during the actor-oriented run of the project.

In ROBUST Workpackage 1, Woods and Heley (2017, 26) indicated how different conceptualizations of rural-urban interactions are significant for the way how we think about possible or desirable governance arrangements. Conventional functionalistic starting points make us underline the leading role of urban areas, whereas more actor-oriented approaches tend to see the relationship two-way and co-constituted highlighting the agency of rural actors. Our approach, which is particularly interested in the potential of network governance, leans on the latter one.

Similarly, it is essential to clarify the scope and nature of the rural-urban interactions that are to be managed with governance arrangements. Our task in ROBUST is to seek governance arrangements which are *effective in terms of enhancing cross-sectoral interaction and rural-urban synergies*. The localities we shall deal with in the following include simultaneously territorial "spaces of dependence" and their institutions – concrete communities with democratic legitimacy –, and more relational "spaces of engagement", where the rural and urban actors collaborate in connection with various social, economic and political sites and processes, flows and interactions which go far beyond their own territory. (Brown & Shucksmith 2017 building on Cox 1998.) Within the ROBUST framework we call them *new localities*.

Rural-urban linkages have previously been studied in particular as rural-urban partnerships (e.g. OECD 2013), a partnership referring to "the mechanism of co-operation that manages these linkages to reach common goals and enhance urban-rural relationships" (ibid, 35). Partnerships have been used more in the context of functional regions, whereas the ROBUST governance arrangement approach tries to capture all kinds of collaborative partnerships, which are boundary spanning and coordinate rural-urban actions.

In the course of the project, ROBUST experience and understanding of the main significance of rural-urban synergy moved on from the original emphasis on smart development aiming at Europe's smart, sustainable and inclusive growth and maximizing the creation of rural jobs and value-added. Currently, we regard it more apt to talk about *wellbeing economy* (Maye et al 2021), which refers to providing essential basics for good life and citizenship as foundations for rural-urban wellbeing. Although this framing did not direct our work on governance arrangements in the ROBUST Living Labs (LL) or Communities of Practices (CoP) in the beginning, we regard it a fresh lens through which to identify promising governance arrangements for rural-urban synergy. The applied ROBUST framework below illustrates the overall approach used in this report.



From these starting points WP5 has explored efficient governance arrangement for rural-urban synergies. To address this aim we had four objectives:

- ✓ to explore the current diversity of arrangements for governing rural-urban relations in general and for the 5 thematic fields in particular;
- ✓ to better understand the relations between different governance arrangements and rural-urban growth characteristics and dynamics;
- ✓ to critically assess the place-specific opportunities and limitations of different types of governance arrangements;
- ✓ and to evaluate the transferability of promising governance arrangements between regions and thematic domains.

To answer these aims and objectives, the work was organised into four tasks, which started with identification, characterization and evaluation of effective governance arrangements. In Task 5.1, all Living Labs (LLs) filled in elements of their governance arrangement in a template to present the state of affairs at that time, followed by the scenario workshops (Task 5.3, reported in D5.2), thematic workshops (Task 5.2, reported in D5.1), and finally by the European workshop on transferability and replicability (Task 5.4, reported in D5.3). In general, this synthesis report will provide an overview of effective governance arrangements for different themes and territorial settings, discuss the nature of their interrelations with balanced rural-urban development and reflect on the replicability and transferability of effective governance arrangements. More specifically, this report analyses to which extend the governance arrangements in ROBUST living labs include elements of network governance, what are their opportunities and limits in terms of rural-urban synergy, and which solutions or experiences would be worth sharing more widely. Below we explain the network governance arrangement approach and methods employed in WP5, as well as introduce the structure of the rest of the report.

1.2 Network governance and governance arrangements

Network governance and other types of multi-actor governance

Governance in our context refers to reallocation of authority upward, downward and sideways from the central state (Hooghe & Marks 2003), whereas *government* refers to an established architecture of power, control and authority, generally in a state: "a system of social control under which the right to make laws, and the right to enforce them, is vested in a particular group in society" (Columbia Encyclopedia 2000). In our 11 Living Labs the extent to which government has reallocated or allowed the reallocation authority to govern rural-urban issues varies.

Basically, governance is thus used to describe decentralised government, which can take place in numerous ways. *Multi-level governance* characterises the changing relationships between actors situated at different territorial (vertical) levels, both from the public and the private sectors. It emphasises both the increasingly frequent and complex interactions between governmental actors and the increasingly important dimension of non-state actors that are mobilized in (EU) policy-making. (See e.g. https://www.feelingeurope.eu/Pages/multilevel%20governance.html). Many governance arrangement examples that will be discussed in this report are multi-level solutions, but not all.

Similar to network and multi-level governance, the *territorial governance* approach highlights the interdependence of different actors from different levels and different territorial aggregation, emphasizing the importance of indigenous knowledge and local experience at different stages of policy and planning processes (Moodie et al 2021). It places a specific emphasis on both territorial distinctions and temporal variations and change. This focus upon adaptation to changing contexts and place-based / territorial specificities is the dimension that arguably sets 'territorial governance apart from multi-level governance' (Van Well et al., 2018, p. 1285). Territorial governance is (or has been) an important prerequisite for implementing major policies, including the EU 2020 Strategy, the EU Territorial Agenda 2030 and EU Cohesion Policy (Böhme et al., 2015; Cotella, 2018). The OECD (2020) has also outlined a territorial governance approach for helping to meet the Sustainable Development Goals (SDGs). Limits and opportunities of governance arrangements in our wellbeing economy framework will be identified with the help of territorial governance concepts.

Multi-actor governance implies that a multitude of actors are involved. It is used to describe interactions in which government, other public bodies, private sector and civil society participate. All the governance arrangements discussed here are multi-actor, but they do not necessarily include all three types of actors, they may be combinations of two types.

Network governance is a model for deciding together. Network governance emphasizes the participation of local stakeholders and partnerships across sectors and scales. (Woods and Heley 2018.) Network governance is that which gives local and regional partnerships and institutions the 'power to' rather than the state keeping 'power over'. Although central government is still important, its role in network governance is more to coordinate and enable than to simply direct. In ROBUST, we are especially interested in the way how network(ed) governance that is based on participation and equal partnership can help build rural-urban synergies.

ROBUST's Five Features of Network Governance (Woods et al. 2018,16)

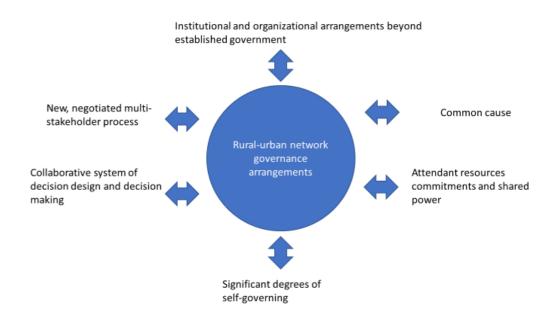
- 1. Groups from different sectors and scales are brought together in an ongoing partnership.
- 2. They negotiate with each other.
- 3. The partnership is formalised somehow, such as through a committee or with monthly meetings.

- 4. The partnership has the autonomy to make decisions (although there will be external limits to what it can do, such as national laws and allocated budgets).
- 5. There is a public purpose to the group's work.

A slightly more detailed network governance definition which we applied in our analysis to rural—urban synergy (Ovaska et al. 2021) stems from Douglas (2006). Douglas' definition was originally designed in the context of rural development but proved to be useful for structuring the aspects of rural-urban synergy, as well. Compared to the original ROBUST definition, this network governance model is more detailed in terms of self-governing attendant resources commitments. In the WP5 analysis, synergistic rural—urban network governance arrangements contain the following elements:

- (a) negotiated, multi-stakeholder process;
- (b) a collaborative system of decision design and decision making; characterized by
- (c) significant degrees of self-governing; with
- (d) attendant resources commitments and shared power; where there is
- (e) sufficient common cause; and
- (f) a pragmatic understanding that to achieve the requisite capacity and agency requires appropriate institutional and organizational arrangements beyond the established architecture of power, control and authority, notably that of government.

Figure 2 Rural-urban network governance arrangements



Governance arrangements

Designing systems of governance that can embrace a balanced rural-urban interaction have proved challenging (see e.g. Woods & Heley 2017, 55). In the few efforts to examine them, *governance arrangements* have been defined in very broad terms, such as "approaches to assist in regional planning and development" (Brown and Shucksmith (2017, 11) as well as "policy development and program administration" (ibid., 16). In ROBUST WP2 Rapid appraisal Knickel and Kobzeva (2018, 22) used the term "Governance profiles" and referred to both governance arrangements and planning instruments. Attention

was paid to "mechanisms of cross sectoral or cross-municipal coordination and cooperation, as well as the related social, organisational and institutional innovations. Other interests concern different expressions of network governance across the interfaces between rural, peri-urban and urban areas, the role of territorial approaches and collaborative partnerships, interactions that cut across territorial competences, and forms of governance that support smart (territorial) development."

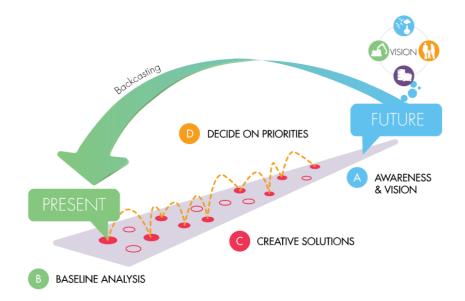
According to a dictionary definition, arrangements are "plans and preparations which you make so that something will happen or be possible" (Collins COBUILD Advanced English Dictionary https://www.collinsdictionary.com/dictionary/english/arrangement). In our ROBUST project, in WP2 we already screened different general expressions of network governance such as relevant policy frameworks, governance systems, instruments and practices (Knickel & Kobzeva 2018, 22). Following the ROBUST framework, WP5 analysis takes network governance as its starting point, and focuses in governance arrangements on those practices that are part of Douglas' model above.

1.3 WP5 methods

Regional, national and European workshops have been platforms for reflecting on, co-creating and advocating network governance arrangements. Thus, in addition to studying these arrangements, collecting data and experiences, the events have been designed also to facilitate the process. Co-production with practice partners and other stakeholders is in the core of ROBUST. The main material are thus the governance arrangements in ROBUST's own 11 Living Labs, serving as evolving real-time case studies. In addition, we have collected information, as well as compared and shared findings with experienced external stakeholders. When following processes, connections and networks, Douglas' modified model has been used as an analytical lens in particular in Task 5.1 and in the regional workshops.

1.3.1 Regional scenario workshop method

In each of the eleven Living Lab regions, regional multi-stakeholder workshops were organized by the LL teams to discuss their future visions and different governance arrangements for fostering cross-sectoral interactions and rural-urban synergies in January-December 2020 (described in detail in ROBUST Deliverable 5.2). Future rural-urban synergy prospects and visions were actively explored in a place-based, multi-stakeholder setting. The workshop was organized as a foresight exercise (Natural Step approach, see figure 2) that builds on previous work, taking the LL motto, one of the WP3 achievements, as a starting point, and "translating" it into a positive and ambitious but realistic vision of rural-urban interaction in the LL area and chosen topic in 2030/2035.



Workshops were attended by different stakeholders (businesses, interest groups, civil society organisations) and representatives of local/regional authorities. All eleven regional workshops were organised using a similar approach and were reported in a similar manner and format to allow for maximum comparison.

The aim of the exercise was to promote the network governance elements in the governance arrangements. To start the exercise, participants needed to understand what kind of governance arrangements enhance rural-urban synergies and interaction, and what it means for individuals, business and other organizations and society. After identifying the gap between where they were today (current reality) and where they wanted to go (vision), they were able to start to think step by step about innovations and creative solutions, like new (more equal and inclusive) platforms for rural-urban actors to collaborate, finding new ways and channels for cooperating, or formalizing partnerships if needed. This method prevents one from developing strategies that just solve the problems of today. Finally, the LLs were able to decide on priorities of what they need to do, and when should they do it. Through a set of prioritization questions it was possible to design a pathway that keeps the goal in mind with maximum flexibility and benefits. This method was applied also for the sake of offering the LLs with a practical development tool, as the exercise can (and is recommended) to be repeated at regular intervals.

1.3.2 Thematic Workshop method

After getting the results from the regional workshops, five thematic workshops were organised for both ROBUST project participants and invited external stakeholders (described in detail in ROBUST Deliverable 5.1). The workshops were organised partly parallel during 17-19 February 2021 on the 5 thematic fields of Wellbeing economy: Services; Culture & Heritage; Circularity; Ecosystem Services, and Proximity. The aim was to share and exchange the findings and experience with governance arrangements in different areas and settings of themes.

At this stage the elements of wellbeing economy were also launched to the discussion, and a Background paper (see ROBUST Deliverable 5.1 & Maye et al. 2022) was provided in forehand. Illustrative examples of governance arrangements in the theme in question were presented, and participants were divided into breakout rooms to discuss the presented examples as well as their own experiences in terms of well- or ill-functioning solutions. A second breakout room session and a following plenary session focused on what is needed to make innovative examples work in terms of governance arrangements, what does it mean in

terms of rural-urban relations, and finally, whether these governance arrangements foresee or enable any interactions with other dimensions of the foundational in the collaborative production of wellbeing.

1.3.3 European workshop method

As a joint effort of WP5 and WP6, LUKE and PURPLE organised an interactive workshop, supported by the Lead Partner. It was attended by representatives from local, regional and national authorities, EU and international actors, NGOs and researchers (described in detail in Deliverable 5.3). This diverse group came together to share experiences of governance principles and identified challenges, and to critically discuss to what extent and under which conditions promising governance arrangements can be transferred and replicated. This was explored in the contexts of places as well as themes.

Before the Workshop, a background paper (included in Deliverable 5.3) was shared with the workshop participants, providing information on key concepts, initial findings and aims of the day. The first substance session dealt *Principles and Challenges of Rural-Urban Governance Arrangements* and was divided in two sub-sessions on 1) Principles and 2) Challenges and Solutions. Inspired by presentations and interviews with people representing ROBUST internal and external examples, participants continued in four parallel breakout room groups on Food: policy and procurement; Green infrastructure and spatial planning; Service delivery mechanisms; and Mechanisms for balancing the rural and the urban. The plenary also contained reflections on ROBUST policy level deliverables.

1.4 Reporting structure

In chapter 2 we shall have a closer look at the different governance arrangements in ROBUST cases using the lens of network governance, which we have argued is beneficial for balanced rural-urban synergies and dynamics. In chapter 3 the opportunities and limitations of different types of governance arrangements will be critically assessed. Chapter 4 summarises our findings on the transferability and replicability of promising governance arrangements. In chapters 3 and 4 we structure the results along the dimensions of wellbeing economy. Chapter 5 presents the main conclusions, and the report ends in Chapter 6 with points for discussion.

2 Governance arrangements, network governance and their effectiveness in terms of rural-urban synergies

In this chapter we shall first chart the main features in rural-urban governance arrangements (GAs) and what kind of arrangements are typical for different topics. For the second, we shall analyse them through the lens of network governance: How networked are the ROBUST governance arrangements? Where do we have challenges and weaknesses? For the third, effective governance arrangements will be discussed from the point of view of different dimensions of foundational/wellbeing economy. The chapter finishes with conclusions as to the GA effectiveness in terms of rural-urban synergy. The analysis is based on ROBUST LL case studies, and on the material collected in different stages of WP5 explained above.

2.1 Rural-urban governance arrangement features

The eleven regional scenario workshops and information collected there in network governance templates afforded an overall view on what kind of governance types ROBUST activities have facilitated in terms of their development phase and scope, as well as of their effectiveness and place-specificity.

As to the development phase of the studied governance arrangements in LLs (for summaries of the LLs, see Annex 1), there is considerable variety. We have three established arrangements in place: those of FrankfurtRheinMain on land use planning, Styria on regional development strategy and Ljubljana on regional development plan. Most of the governance arrangements in our LLs were involved with emerging arrangements. This was the case in Ede (inter-administrative program for vital countryside to integrate food, environmental and spatial planning), Helsinki (a network to combine the separate rural and urban policy councils and their respective networks), Gloucestershire (catering schools locally and Natural Flood Management (NFM), Mid Wales (governance arrangements for the delivery and realization of the Rural Vision for Mid Wales and Natural Flood Management (NFM) and Tukums (arrangements for coordinating cultural strategy by strengthening rural-urban cultural connections). In two cases, the ROBUST LL was more clearly initiating a rural-urban synergy GA - those of the Lisbon metropolitan region (a proximity territorial economy model) and Valencia (arrangements for implementing rural-urban territorial processes in the domains of business, labour markets, public infrastructure and sustainable food systems); and to some extent also the Helsinki GA of a common network for rural and urban policies. Also, these cases were based on existing structures and processes, but the ROBUST LL work launched a more holistic, qualitatively new rural-urban approach. The studied GAs were mostly formalized arrangements, with the exception of Valencia, Lisbon (urban-rural dynamics laboratory), Helsinki (joint rural-urban network), Ede and Tukums. These were emerging or just initiated arrangements.

In terms of network governance criteria, most of our GAs are multi-level arrangements, mainly combining local, regional and national levels. The Living Labs of FrankfurtRheinMain, Lucca (inter-municipal food policy), Styria and Valencia had to do with local-regional arrangements, whereas Tukums LL is basically a local arrangement. Most GAs gather both public, private and the civil society sectors. However, Gloucestershire case on food procurement is closer to a public-private arrangement, while FrankfurtRheinMain and Styria LL cases rather represent public government arrangements and practices, which include civil society participation.

Most of the ROBUST LL governance arrangements are **multi-sector** arrangements. Gloucestershire and Lucca offer examples of one sector (food) GAs. Multi-level and multi-actor structures were perceived as a starting

point in most rural-urban governance arrangements since this is the way to reach and involve all essential actors. Place-specificity and the topic of the GA have an effect on how many levels or sectors it is functional to include.

In most cases the ROBUST LL governance arrangements do not exist for rural-urban synergy per se — it is not their explicit purpose — but they contribute to it in several ways. First of all, their purpose may be to plan and implement regional development or regional land use. In these cases, rural-urban synergy is a significant part of the governance arrangement. This is the case in Frankfurt Rhein Main and Styria, partly also in Ljubljana. Mid Wales is an example of a governance arrangement which is in place in order to plan and implement rural development. Rural-urban synergy is a crucial part of it. For the third, there are governance arrangements which are initiatives primarily aiming at solving a larger problem, with acknowledgement of rural-urban dynamics. In Ede it is a matter of finding a balance between economy and environment in the area, while in Lisbon the actors have joined around circularity. For the fourth, there are arrangements which focus on a particular topic, embedded in the rural-urban synergy. In Gloucestershire it is public procurement of food, in Tukums culture, and in Lucca integrated food policy. Helsinki, Valencia and partly Lisbon are examples of governance initiatives the prime aim of which is rural-urban synergy.

There seem to be some characteristics connected to certain topics of the GA. In the case of spatial planning or regional development, it is typically an inter-municipal arrangement, where public authorities have a leading role. Legal or policy instruments underpin and even structure the arrangement to a large extent. If the underlying policy measure or program itself is targeted to rural development, the arrangement most likely also recognizes the rural dimension (Ljubljana, Mid Wales), which is not necessarily the case with general regional development or spatial planning arrangements. This type of GAs has multiple levels and actors, and in our sample, they were often the most formalized arrangements.

Rural-urban governance arrangements for one sector are most common in the case of food, and they may take different forms, such as the public procurement contract in Gloucestershire and the integrated food policy in Lucca. The more detailed the arrangement is, such as in the case of procurement contracts, the more place-specific the form becomes since it has to be embedded in the existing regulatory and institutional setting. From the rural point of view, a bottom-up approach building on the actual (seasonal) supply and involvement of (local) farms would be crucial.

Culture or regional heritage GAs can be based on one sector (such as culinary culture) or multiple forms of culture (music, folklore, industrial history), and they can be organized either very locally or inter-municipally to brand a whole region. They require multiple actors, and the participation of the private sector may offer firmer future prospects. Being clear about and committed to the shared common goal is particularly important, as well as a joint understanding of its rural and urban significance.

Governance arrangements to manage circularity and/or ecosystem services require inter-municipal, multiactor approaches. Although they may focus on single issues such as catchment-based partnerships or ecosystem service payment schemes, they are by definition a part of a larger system. They may be challenging to communicate to all involved parties. The ROBUST experience suggests that careful facilitation is important to break path dependency which may prevent from seeing the benefit of joint arrangements.

2.2 Network governance

To study the diversity of network governance arrangements in ROBUST Living Labs, we inquired all LL teams (research and practice partners together) about their governance arrangements, including levels, actors, settings and policy. We analysed the results from the perspective of what makes network governance effective for rural-urban synergy, applying the aspects that are expected to foster mutually beneficial relations (based on Douglas 2006, introduced in chapter 1).

The LLs were asked to indicate and evaluate different elements of network governance arrangements in their case. The following table summarizes the results. It should be noted that the evaluation was done separately in each workshop and the results cannot be compared with each other as such, since the way of using the scale of the scores (1-5) varied. On average, a public purpose seems to be strongly present, and the arrangement is often regarded participatory. Although it is not necessary to try to fulfil all network governance arrangement characteristics completely in all kinds of cases, the result indicates that many rural-urban GAs still have little autonomy to make decisions, it is not clear if they are responsive and to whom, all partners do not always commit resources, and not all arrangements are equal and inclusive.

Table 1 Characteristics of network governance in LL cases.

Question/ LL	Ede	Fra	Glo	Hel	Lis	Lju	Luc	Mid-	Sty	TuK	Val	Average
1 brings	3	5	5	2	5	4	4	W 2	5	2	5	3.8
groups from diff. sectors & scales in a partnership												3,8
2 all partners negotiate with each other	3	5	3	3	4	5	3	3	4	2	3	3,5
3 to what extent is the partnership formalized	2	5	5	2	2	5	5	5	5	1	2	3,6
4 autonomy to make decisions	3	5	3	2	2	5	3	3	5	-	2	3,3
5 public purpose involved	5	5	5	3	5	5	5	5	5	5	3	4,6
6 all partners commit to resources	3	5	5	1	4	3	3	4	4	-	4	3,4
7 arrangement is in place to meet legal/statutory requirements	2	5	4	-	3	3	4	5	5	-	4	3,5
7a transparent	3	5	3	3	5	5	3	3	5	-	3	3,8
7b responsive	2	4	1	3	4	5	1	3	4	-	2	2,9
7c consensus- oriented	3	5	2	3	5	5	4	4	4	3	4	3,8
7d equal and inclusive	3	5	3	2	4	5	4	3	4	3	2	3,5
7e effective and efficient	4	5	4	2	4	5	-	4	-	2	3	3,7
7f accountable	3	5	5	-	5	3	-	4	-	1	5	3,9
7g arrangements are participatory	5	5	2	-	4	3	4	4	5	4	4	4,0
Average	3,1	5,2	3,4	2,4	4	4,6	4,7	3,7	4,4	2,6	3,3	

The results showed great heterogeneity. The LL cases represent well-established EU member states but also so-called new member states. There are differences in existing institutions: both organisations and customs. The GAs are shaped by time and place and are context dependent. To understand these differences, Ovaska et al. (2021) elaborated five of the LL cases in detail: The Block Section of the Finnish Village Association in Helsinki LL, cultural strategy of Tukums in Tukums LL, Foodvalley connected¹ to the Ede LL, Ljubljana Local Food Marketplace in Ljubljana LL and Municipal Food Council of Valencia (CALM) in Valencia LL. The cases show a variety of territorial but also rural—urban governance angles: Foodvalley, CALM (Valencia) and Ljubljana Local Food Marketplace focus on food, whereas Tukums deals with cultural strategy and the Blocks

¹ Foodvalley is wider than the original Ede LL. It is a challenging governance setting characterized by contrasting views on circular farming, different ideas on rural land use optimization and lack of consensus about rural-urban synergy potential.

Section of the Finnish Village Association in Finland concentrates on mutual cooperation, interaction and learning (see also Ovaska et al. 2021).

The elements of the network governance arrangements as defined by Douglas (2006) were present in all five cases. They were intended to be new, negotiated multi-stakeholder processes operating beyond established government arrangements. The elements of collaborative decision-design and decision-making and self-governance to significant degree were shaping or already existing. There was also an overall agreement of the common goal in the cases. The limitations were to be found in sharing power, and committing resources, such as time, money or expertise. It was possible that the ownership of one participant was too strong to let others contribute or the participants were not even willing to contribute. In Helsinki LL case, the urban actors were less organized and less in need of rural—urban interaction. In the Ede LL case and Valencia LL case, larger, urban companies or cities dominated the scene and small-scale rural actors did not have an equal say. In the Tukums LL case, the GA was intended to be participatory but the response from the civil society and NGOs was passive.

Despite the limitations, the reasoning behind every network governance arrangement is that there is not sufficient agency, resources or other capacity to act without collaboration, i.e. GAs are created to attain capacity, which is not sufficiently available to the individual participants. Keeping this in mind, the pursuit for an ideal GA for a common goal is easier to realise.

2.3 Governance arrangements for different wellbeing economy dimensions

In the Thematic workshops we continued the search for well-functioning and potentially interesting governance arrangements. In this case, the governance arrangements were considered in the connection to wellbeing economy dimensions. In each of the workshops that were organized according to the five domains: Social services; Culture & Heritage; Circularity; Ecosystem Services; and Proximity, an ideal type of the domain was created.

In the case of services, thematic working groups and specific challenge-led missions were raised. In addition, support and recognition to the GA from the national or regional level through multi-level governance schemes was called for.

As for circularity, it was stated how important it is that all relevant actors are included, both those who win and those who lose. There was a need for flexible cooperation arrangements and model agreements that include different types of actors, as well as multi-level perspective that links different scales for both upscaling and downscaling governance arrangements. All mechanisms that enable actions to move are welcome, independent of who takes the initiative.

Concerning GAs for culture and heritage, multi-actor, inclusive arrangements were preferred under a clear leadership and responsibility. These arrangements require strength in terms of accountability and continuity, possibly in the form of an anchor institute or a hub model. Also moving beyond the local level towards EU / national / regional cultural strategies was suggested.

In the case of ecosystem services, multi-level and multi-scale approaches were recommended. However, besides formal, competent structures with a say also informal platforms offering a space to discuss are needed, since trust and openness only work in an environment where they are allowed. Rural-urban ecosystem governance arrangements call for innovation, which comes best from novel partnerships. The inherent system approach requires functional regions, GAs along administrative boundaries will not work.

The crucial role of anchor institutes and passionate individuals within them to lead and make links were emphasised also in connection to proximity. These GAs must be based on cooperation of engaged stakeholders with diverse background teaming up on equitable relations. The activities in question require legal compliance, so the GA should involve enough expert knowledge. Transparency and open

communication between rural and urban actors as well as sufficiently flexible regulations to allow initiatives to facilitate cooperation between stakeholders and different scales were called for. Finally, practical proximity GAs can reach their goals only if they can count on long-term funding.

2.4 Effective governance arrangements for rural-urban synergy

There is no single form of effective governance arrangement, but in the case of rural-urban synergy, an effective GA is most often multi-level and multi-actor. The public sector and/or local government role is crucial in most functioning governance arrangements. An efficient governance arrangement can evolve both top-down or bottom-up. However, if top-down, attention should be paid to balanced participation building, as rural-urban inequalities are deeply entrenched. Especially in the most institutionalized cases, establishment of the governance arrangement may take years.

The elements of network governance prove to be important for effective GAs: negotiated, multi-stakeholder process; a collaborative system of decision design and decision making; characterized by significant degrees of self-governing; with attendant resources, commitments and shared power; where there is sufficient common cause; and a pragmatic understanding that to achieve the requisite capacity and agency requires appropriate institutional and organizational arrangements beyond that of government. These elements improve the effectivity of a mature arrangement, but they are needed, maybe even more importantly, during the establishment and development process of the GA. A common goal seems to be the easiest good GA element to realise, whereas more effort needs to be taken in order to reach the autonomy to make decisions, responsiveness to both rural and urban communities, a situation where all parties commit resources, and that all arrangements would be as equal and inclusive as possible.

Finally, the rural-urban synergy effectiveness of governance arrangements depends also on the scope of its purpose: Does the governance arrangement exist for rural-urban synergy only, or rather for some other goal linked or including this synergy. In particular in the case of spatial planning and regional development the effectiveness to rural-urban synergy is not so self-evident, it depends on how strongly the rural-urban particularity is taken into account.

3 Limits and Opportunities of Rural-Urban Governance Arrangements

As already shown, the ROBUST project identified, developed and worked with numerous examples of rural-urban GAs, both in the living labs, Community of Practices and through the final European workshop (WP5 and WP6). This chapter zooms in on the limits and opportunities of different GAs. It is structured around five dimensions of the wellbeing economy (e.g. Bentham et al. 2013; Froud et al. 2020; Maye et al 2022):

- social services
- proximity
- circularity
- ecosystems and
- heritage / culture.

The five sub-chapters discuss the limits² and opportunities³ of each dimension. In this discussion, we will first look at encountered limits and then present potential and actual opportunities to overcome these limits. Some of the limits and opportunities are of a more general nature (see also chapter 4 / table 8), while others are more place specific. (Elements of) the place-specific examples are also potentially transferable, and the lessons learned are valid for other places as well. In any case, replicability always requires customisation / adjustment to the specific local contexts a practice or tool shall be implemented in.

The analysis is subdivided into several interlinked subjects: governance collaboration and coordination (local, sub-national, national and EU level), funding and finance, cross-sectoral connections, synergies and integration, as well as data and knowledge.⁴

Table 2 provides an overview of GA examples that ROBUST collected and/or was concerned with, complemented with other EU cases discussed at the ROBUST European Workshop. The five wellbeing economy dimensions are to be found in the column on the left side. Moving from left to right, the table provides examples of arrangements organised at different levels of governance. All examples listed here are discussed in the sub-chapters below. As will be seen, some of the cases presented under circularity also contain elements of / strongly relate to ESS.

² We follow the Cambridge Dictionary, where limitation is defined as "someone or something has limitations, they are not as good as they could be". This is closely related to an obstacle or challenge as analysed in other work packages.

³ We follow the Cambridge Dictionary, where opportunity is defined as "an occasion or situation which makes it possible to do something that you want to do or have to do, or the possibility of doing something." This is closely related to an enabler as used elsewhere.

⁴ The subjects relate to the conceptual frameworks of network and territorial governance (e.g. Schmitt & van Well 2016, Gualini 2008, Kull et al 2021, Moodie et al 2021) and have been successfully used to analyse the nuances and to support evidence-based policymaking in governance practices at different levels and in different contexts of governance (e.g. Kull et al. 2017, Cedergren et al 2019). Whilst it would have been nice to investigate all characteristics of network governance in this chapter, we did not possess of sufficient information of these characteristics with regard to the GAs discussed here, such as, for instance, autonomy to make decisions, commitment to resources etc. In-depth results presented in chapter 2 based on network governance characteristics were derived from workshop exercises in the LL. Here we rely on information distilled from LL, thematic and scenario WS reports, CoP papers and European Workshop.

Table 2 Rural-urban governance arrangements

Dimension	Local and inter-municipal	Regional Level	National Level	Transnational / EU level	Global
Social Services	Styria (AT): LEADER LAGs with urban participation. Graz district (AT): GUSTmobil. Finland: Blocks Section under the village association. Lisbon Metropolitan Area (PT): Collaboration among urban and rural municipalities. Italy: Municipal unions sharing resources and planning. Valencia (ES): budgets for intermunicipal collaboration	Austria: Regional budgets for municipal cooperation Styria (AT): Regional Management Agency (RMA) Styria (AT): REGIOtim Bretagne (FR): reciprocity contracts in health provision Netherlands: Regional deals between public and private partners Wales: Major planning act Wales: Welsh wellbeing & future generations act Valencia (ES): Territorial Employment Pacts (TEPs)		EAFRD funding / operational programmes	
		Wales: Growth Deal partnership Flanders and Wallonia (BE): SMARTA: smart rural transport areas			
Proximity	Ede (NL): Urban Food Policy Making Ljubljana (SI): Short Food Supply Chain (SFSC) Organisations & Ljubljana Food Marketplace Lucca (IT): Participatory Guarantee System (under consideration) for local markets UK: local food councils UK Preston model Valencia (ES): Municipal Food Council & Town Hall Strategy for Food Wales: Monmouthshire Food Project	Finland: Procurement rings Lisbon (PT): Lisbon Strategy 2030 Tuscany (IT): small producers' coordination & collaboration The Netherlands: City Deals Food, Region Deals Nuremberg (DE): Regional platform for local producers	Italy: changes in food procurement systems for schools and hospitals		
Circularity	Ljubljana (SI): food promotion in primary schools Lucca (IT): food promotion in primary schools		France: reciprocity contracts Skive (DK): linking rural,	Upcoming reform of the CAP and related policies	Peer-to- peer connections between farmers and consumers

Dimension	Local and inter-municipal	Regional Level	National Level	Transnational / EU level	Global
	Lucca (IT): public-private collaboration in the use of biomass Valencia (ES): food promotion in primary schools and restaurants Bath and North East Somerset Council (UK): Dynamic Procurement System (DPS) Gloucestershire (UK): Include circular economy principles in County Climate Change strategy and Annual Action Plan. Ede: joint elaboration and studying agro-ecological circular farming futures in quadruple helixes.		national / transnational actors and spaces around CE innovations The Netherlands: Agri-industrial Circular Farming Futures: oriented at potential circularity gains at higher scales		across the globe
ESS	Ede (NL): Environmental cooperatives; Territorial cooperatives as novel forms of multi-stakeholder cooperation and levers for new rural-urban alliances; multifunctional rural enterprises as predominantly private-actor led GAs Gloucestershire and Stroud Valley (UK): Natural Flood Management (NFM) Lisbon (PT): Metropolitan Network of Agroparks	Frankfurt (DE): Planning-inspired approach and supply of ESS Frankfurt (DE): trust building and linking people through cycle highways Gloucestershire (UK): Natural Capital Mapping Gloucestershire (UK): Building with nature scheme Helsinki/Uusimaa region (FI): cooperation on land use, housing, transport (MAL) UK: Regional Floods and Coastal Committees	Finland: implementation of water framework directive UK: Sustainable Urban Drainage Schemes UK: Catchment partnerships NL: CAP reform pilots with a key role for agri- environmental cooperatives; Dutch Environmental and Planning Act	BE, NL, DE: Three-Countries Park landscape partnership on Green Infrastructure	
Culture / Heritage	Bamberg (DE): UNESCO garden Tukums (LV): Living lab on a cultural strategy by strengthening rural-urban cultural connections Lucca: local food policy & territorial plan valorising cultural heritage, landscape and territory	Frankfurt (DE): Cultural Region	Finland: Regional Councils	European Capital of Culture CLLD projects & funds Projects focussing on culture / cultural heritage	

3.1 Social Services

The social services dimension is concerned with the availability, access to and quality of social services. In ROBUST, this dimension was primarily linked to the Public Infrastructures & Social Services CoP, but also the Business Models and Food Systems CoP dealt with services. Accessibility, mobility, municipal cooperation and the building of public infrastructure can be attributed to this dimension. Teleworking, multi-locality living, multi-modal mobility and health care are typical examples. Figure 1 visualises selected governance arrangements from ROBUST and elsewhere dealing with social services and linking rural and urban areas.

Figure 4 Governance Arrangements - Social Services

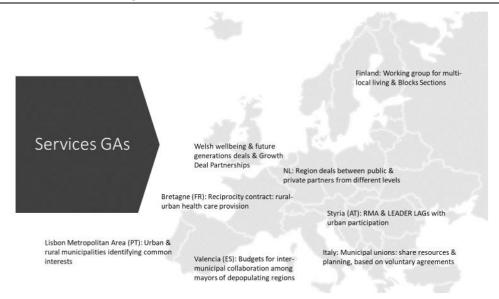


Table 3 lists a number of limits and opportunities for GAs identified and discussed in the ROBUST project.

Table 3 Limits and opportunities for GAs - Social Services

Subject	Limits	Opportunities
Governance coordination & collaboration: local & subnational	Disparity in capacity and interests: larger, more urban municipalities vs. smaller, rural ones. Individual municipal interests and focus. Different sizes, power structures and financial strength of municipalities participating in a GAs. Whilst cooperation mechanisms between different local levels exist, mechanisms are not fully used. Multi-local living challenge: linking traditional GAs in organising services (FI).	Coordination and clarification: needs, financing and possible differences, establishing "common goals". Extending existing "rural" collaboration structures to peri-urban and urban areas (e.g. LEADER LAGs with urban participation in Styria and Blocks Sections in Finland). Organisations promoting inter-communal co-operation / acting as mediators (e.g. RMA Styria). Growth Deal partnership: collaboration of two local authorities, representatives from educational institutions and business organizations (Ceredigion and Powys) Voluntary agreements on sharing resources and planning within unions of municipalities (Italy). Building more strategic cooperation between municipalities.
	Participatory and spatial rigidity.	Umbrella arrangements including region deals (Welsh Major Planning Act)

Subject	Limits	Opportunities
		Local service boards incl. local authorities fostering wellbeing (Welsh Wellbeing & Future Generations Act).
		Use flexible GAs to implement specific tasks within the framework of planning law, e.g. for mobility (Frankfurt Metropolitan Region).
		Cross-community micro-public transport services (e.g. GUSTmobil Graz).
		Networks of multimodal mobility nodes along public transport routes (REGIOtim Styria).
		SMARTA: smart rural transport areas, local governments drawing up plans for public transport (Flanders and Wallonia BE).
Governance	Lack of policy links / silos for rural and	Multi-local service provision at national scale.
coordination & collaboration:	urban policies. Lack of strategic cooperation between	Rural Service Hubs: multiple / different types of services are colocated in the same space.
national & EU	municipalities in spatial planning.	Working Group for Multi-Local Living (Finland).
		Ensuring to link rural issues to urban strategies, and vice versa => both cohesion policy & CAP should prioritize these strategies
		Space for regional differences: 9 different models for regional development in Austria.
Funding & finance	Lack of common resources / budgets for inter-municipal collaboration.	Budgets for inter-municipal collaboration among mayors of depopulating regions (Valencia).
	Smaller municipalities lacking	Region-deals between public and private partners (NL).
	resources for cooperation (Styria).	Territorial Employment Pacts in Valencia.
	Additional cost of providing services in rural areas, lower market base to support businesses and facilities (e.g. Wales). Who pays for services in multi-local living contexts / municipalities having strong self-governance, e.g. organising public services and tax rights? (FI)	Shared economy models (Styria).
		Regional budget for municipalities cooperating in planning & production of services (AT).
		Reciprocity contracts on rural-urban health care provision (Bretagne)
		EAFRD funding / operational programmes,
		Experimental funds.
		Rebalancing resources and addressing / managing services jointly.
		Social / smart ride-sharing as a public-private joint venture.
Cross-sectoral connections,	Lack of cross-sectoral dialogue and connections.	Organisation moderating / promoting regional development processes across sectors / knowing different sector policies.
synergies & integration	Small municipalities take cross- sectoral approach less frequently	Thematic working groups with local urban and rural stakeholders.
	(Ljubljana).	Integrated plans, across policy domains (Styria)
	Materialising the will to collaborate in concrete projects.	Linking education and with transport policy and planning through intermunicipal cooperation (e.g. Sweden)
		Rural care: different types of GAs in terms of ownership & organisation.
		Multifunctional rural enterprises: providing different rural services.
		Territorial cooperatives: different rural sectors, e.g. agriculture, leisure, tourism, artisan products, etc. providing wide ranges of products and services jointly.
Data & knowledge	Lack of capacity / low capacity of local municipalities to work with spatial	Sharing good experiences / practices fosters willingness to participate in new kind of arrangements and projects (Styria).

Subject	Limits	Opportunities
	planning, needing support (case by case).	Learning lessons from failures.
	Lack of information on good practices	Guide to mayors how to participate in regional work programme.
	& stories about failure.	Technical Assistance in operational programmes to sustain the
	Lack of data.	promotion of effective urban-rural partnerships, especially in case of small and medium-sized cities which lack capacity and resources.
	Inaccuracy of both rural and urban population estimates and demands	Robust and detailed data at a high level of resolution.
	on services.	Knowledge integration: research companies with data on traffic flows meet expertise of local planning officers to improve public transport.
General	Lack of understanding & dialogue. Poor infrastructure & low wages.	Promoting of mutual understanding through (public) discussion on r-u issues.
	Tool illinoist decare & low wages.	Identification of common interest through collaboration (e.g. urban and rural municipalities in the Lisbon Metropolitan Area).
		Flexible governance arrangement accounting for different scales.

Limits

Limits and challenges can be manifold. More general limitations experienced in many EU countries is poor infrastructures and low(er) wages in rural areas. In terms of collaboration and coordination, this can be disparities in capacity and interests between larger, (urban) municipalities and smaller ones located in rural areas. ROBUST work also came across different sizes, power structures and financial strength of municipalities participating in a GA. Regarding funding and financing GAs, the LL from Mid Wales stressed in its final report, the additional costs of providing services in rural areas and lower market base to support businesses and facilities. Furthermore, actors may face a lack of common resources and budgets for intermunicipal collaboration. Smaller municipalities may lack resources for cooperation. In countries that have a strong trend towards new forms of multi-local living, such as in Finland, it is unclear who pays for services used by part-time dwellers, particularly when municipalities have strong self-governance (e.g. organising public services and tax rights). Looking at different sectors in a territory, ROBUST living labs also identified the lack of cross-sectoral dialogue and connections as a limitation. A case in point is Ljubljana, stressing that small municipalities may take a cross-sectoral approach less frequently. Others pointed at the lack of materialising the will to collaborate in concrete projects, e.g. rural LAGs and fisheries FLAGs not finding common interests to guide their actions (LL Valencia final report). Lack of capacity, and, related, the lack of data and information on good practices but also the lack of stories about failure can all limit the establishment of GAs between rural and urban areas. An issue extending the field of service provision is the lack of understanding and dialogue between actors in a given territory and potential partners in an emerging GA. Good news is that ROBUST was able to identify and propel the development of GAs in the field of services. Different types of opportunities will be discussed on the next pages.

Governance coordination and collaboration opportunities

Forms of collaboration at local and regional level can be diverse and range from collaboration between different actors within a municipality, municipal cooperation between small municipalities and cities to GAs organised or coordinated / steered at regional level. Some CoPs and LLs have pointed at an extension of existing "rural" collaboration structures to peri-urban and urban areas, for instance through *LEADER LAGs with urban participation* in *Styria and Tukums* or the so-called *Blocks Sections* in *Finland*. The latter are meant to strengthen Leader-type, community-based local development also in urban areas and to link the separate national multi-actor networks of rural and urban policy. The *Blocks Section* in the Association of Finnish Villages offers a platform for bridging the two policy networks. To tackle the multiple

dimensions of multi-local living, a new Working Group for Multi-Local Living has been set up with one of the Helsinki LL team members as its co-ordinator.

The *LL in Lucca* found that rural-urban, public-private partnerships could be suitable tools for addressing various services ranging from *agri-kindergartens* and *urban farms* to the *protection of natural assets*. Furthermore, voluntary agreements on *sharing resources* and *planning within unions of municipalities* exist in Italy as well, with local culture and attitude to cooperate as important drivers and prerequisites.

An example for more institutionalised forms of collaboration is the *local service boards in Wales*, which include local authorities and their coordinated efforts to fostering wellbeing through working on various social, economic, environmental and cultural issues. The *Welsh Wellbeing and Future Generations Act* serves as the foundation.

Another example of a coordinating institution was provided by the *LL Metropolitan Area of Styria*. The *Regional Management Authority (RMA) Styria* serves to promote inter-communal co-operation by bringing in an overarching perspective for its rural and urban territories and knowing the "worries and needs" of actors from both. If need be it can also act as a mediator. A stimulating example from the region and for the organisation of cross-community micro-public transport services, is the case of *GUSTmobil* in the district of *Graz*. To improve intra-local accessibility for everyday mobility, and to connect dispersed settlement areas to public transport nodes in a sustainable and accountable way, the *RMA* will in future act as client and take on more responsibility,⁵ instead of individual contracts between the municipality and the operator. Another public transport example is the SMARTA mobility region in Flanders and Wallonia. Public partners from local government develop plans for public transport. Clear commitment of regional governments is to provide connections and to support r-u governance in this field.

Frankfurt Metropolitan Region referred to flexible GAs to implement specific tasks within the framework of planning law. Actors to decide together about the activities and partners involved and have some flexibility as to the tasks to fulfil and can also involve rural areas close to but not within their region. An example is mobility, which has to be seen beyond rigid borders.

The *LL Mid Wales* highlighted the *Growth Deal Partnership* as a network governance example par excellence, linking public and private actors from two local authorities – Ceredigion and Powys – and representatives from educational institutions and business organizations. The partnership has a formalised structure, with a board comprising mainly elected cabinet members from the two councils. This provides accountability. An advisory group of business leaders assists them. A geographical balance is to be ensured through equal partnership of the two member councils, without a dominant city intervention.

Multiple / different types of services can be bundled in *Rural Service Hubs*. They are co-located in the same space, e.g. shops, banks, public offices etc. Organisational forms range from for-profit, to state sponsored and social enterprises.⁶

Concerning the organisation of services in *multi-local living* contexts, the *Helsinki LL* discussed possibilities and alternatives of how to formally regularize dual residence. Ideas included shared tax revenues. Discussions on how to collaborate in service provision among multi-local municipalities continues and may lead to municipal level pilots with novel governance arrangements and solutions.

At EU level and in the national operational programs, policies should ensure to link rural issues to urban strategies, and vice versa. For instance, both *cohesion policy* and the *CAP* should prioritize such strategies.

Irrespective of the level of where a GA is implemented and the diversity of partners to engage, what needs to be coordinated and clarified at an early stage is the needs, issues of financing, possible differences and how "common goals" can be established.

⁵ This includes areas such as marketing and communication and developing a Demand Responsive Transport system further.

⁶ For further explanation incl. examples see Goodwin-Hawkins, B. (2020).

Funding opportunities

Closely related to coordination and collaboration, and in many cases an enabling condition for joint activities between different actors, is the availability of funding and financial means.

Shared economy models, where both partners can benefit and should be treated equally and mutually, are highlighted in the final LL report of *Styria*. Furthermore, to support municipalities to cooperate in the planning and production of services, there is a *regional budget in Austria* enabling them to do so. Similarly, also in *Valencia* and other regions of *Spain*, *budgets* are available for *inter-municipal collaboration* among mayors of *depopulating regions*.

In *Valencia, Territorial Employment Pacts* (TEPs) can be seen as a novel governance arrangement for managing local labour markets and promoting new economic initiatives and business models. TEPs focus on local labour markets and thus encompass different municipalities (extending administrative municipalities). Consequently, and as stressed in the final LL report "new localities arise between larger and smaller municipalities, often urban and peri-urban (whilst) in rural TEPs the challenge is the recognition of rural labour markets and identify their dependency on specific towns and intermediate cities." Since LEADER LAGs also play an important role in these areas, rural TEPs might be further strengthened through integrating their activities within LAG strategies.

Region-deals between public and private partners, bringing together actors from regional and national levels, is an interesting GA implemented *in the Netherlands*. Partners agree on specific investment goals and co-investments.

In the field of rural-urban health care provision, *reciprocity contracts* are implemented *in the Bretagne* and regional services are warranted after centralisation of hospitals.

Experimental funds, and, where possible, rebalancing resources and addressing or managing services jointly, are other opportunities highlighted in the ROBUST thematic workshops. Participants also made a strong claim for prioritising strategies that reflect functional and morphological integration of urban and rural areas in *EAFRD funding and the operational programmes*.

Social and smart ride-sharing as a public-private joint venture can be organised as on-demand public transport through technical platforms etc. This connects public and private customers with transport enterprises. Public funding, e.g. in the form of public vouchers can support the emergence of such GAs.⁸

Cross-sectoral connections, synergies & integration opportunities

To overcome limitations related to the lack of cross-sectoral dialogue and connections, the organisation, moderating and promoting of regional development processes across sectors through organisations that are knowledgeable about different sector policies and needs have proved to be successful. An example is *RAM Styria*. Thematic working groups with local urban and rural stakeholders prove to be important (see also governance collaboration and coordination) or the development of integrated plans, across policy domains (e.g. Styria).

At the European WS the links between education and integration with transport policy and planning were discussed. Many municipalities in Sweden do not have own upper secondary schools in rural areas and trans-municipal transportation to towns nearby is needed. Cooperation between municipalities is very important. However, many children and young pupils from rural areas need to commute long distances and thus have "no normal life".

⁷ For further explanation including TEP examples see also https://rural-urban.eu/publications/rural-urban-business-model-profile-territorial-employment-partnerships-teps.

⁸ For further explanation incl. examples see Vihinen, H. (2020b).

Rural care links farming and other economic activities with different types of service provision. There are different types of GAs in terms of ownership and organisation, including single farms, independent farm communities, institutions of charity associations, youth welfare institutions.⁹

Multifunctional rural enterprises are repositioned within food systems and combine / integrate farming activities with the provisioning of a variety of rural services. They are, however, often limited by sector-based regulatory frameworks.¹⁰

Potentially linked to the former two examples are territorial cooperatives. They bring together actors from different rural sectors, e.g. agriculture, leisure, tourism, artisan products, etc. They are motivated to enhance rural entrepreneurship, to sustain rural development and to improve rural quality of life through co-provision of wide ranges of products and services.¹¹

Data & knowledge opportunities

Sharing *good experiences* but also *lessons learnt from failures* serve as inspiration for setting up and running new arrangements and can foster the willingness to participate in new kind of arrangements and projects. In the ROBUST thematic workshops, guides for mayors on how to participate in regional work programmes have been discussed. *Technical Assistance in operational programmes* is another opportunity that may contribute to the promotion of effective urban-rural partnerships, especially in case of small and medium-sized cities, which lack capacity and resources. Finally, robust and detailed data at a high level of resolution is an important enabler for the work in GAs and in both the services and the other wellbeing dimensions. Knowledge integration is a key opportunity in this regard. Research may produce data about traffic flow meeting the expertise of local planning officers on how to improve public transport in a given municipality.

3.2 Proximity

Proximity is concerned with the state of and mechanisms for reducing social and or spatial distance between providers or producers of services or goods and the customers or consumers of these services and goods. In ROBUST, proximity was an issue in several CoPs. Localisation, short chains (spatial and social), collective action, anchoring institutes and territorial identity are all attributes of proximity. Relevant examples include public food procurement contracts, direct sales, digital platforms, food plans and territorial branding. Figure 5 visualises selected governance arrangements from ROBUST and elsewhere dealing with proximity.

⁹ For further explanation incl. examples see Vuolto, H. (2020).

¹⁰ For further explanation incl. examples see Oostindie, H. (2020e).

¹¹ For further explanation incl. examples see Oostindie, H. (2020d).



Table 4 lists a number of limits and opportunities for GAs identified and discussed in the ROBUST project and to be further explicated below.

Table 4 Limits and opportunities for GAs - Proximity

Subject	Limits	Opportunities
Governance coordination & collaboration: local & subnational	Unclear leadership / ownership with many different stakeholders in participatory processes. Logistical problems for small-scale farms to enter markets. Medium proximity relationships not promoted / limited. GAs aiming at territory-based integrative policymaking lacking references for regional rural-urban inter-dependencies. SFSC Organisations acting individually; lack of coordination / networking body / alliance (Ljubljana).	Participation of different stakeholders with diverse backgrounds (Valencia and UK food councils). Participatory Guarantee System (under consideration) for local markets (Lucca). Coordination between small producers: public procurement, stimulate small producers to produce more (Tuscany). Municipalities supporting SFSC Organisation by providing a distribution area (potentially) (Ljubljana). GAs aiming at territory-based integrative policy-making, proving rural-urban implications, impacts and potential (e.g. Regio-Deal and City-Deal Food in NL). Regional platform for local producers (Nuremberg, DE) Legal power/devolution/re-municipalization. 'Speed-dating' meetings - direct interaction between producers & consumers.
Governance coordination & collaboration: national, EU & global	Lack of understanding global interdependencies.	Inter-municipal collaboration adding global perspectives on rural-urban interdependencies (Food Valley Ede).
Funding & finance	Transaction costs and ensuring territorial benefits. Ability to develop cost-efficient transaction mechanisms.	Funding for inter-municipal agreements and joint actions. Anchor institutes coordinating public food procurement (UK: Preston model) Ongoing change in the food procurement systems for schools and hospitals (e.g. Italy).

Subject	Limits	Opportunities
Cross-sectoral connections, synergies & integration	Potentially low profit levels of selling and buying local food directly from producers to consumers. Potential power imbalances between small & bigger municipalities in joint procurement rings (FI). Delays in support activities from different government levels for SFSC (Ljubljana). Sector silos. Lack of collaboration along supply chains. Long & non-transparent food chains.	Procurement rings: public body between several municipalities and with food companies (Finland). REKO RINGS: peer-to-peer trade and exchange with potential public authority support (Finland)¹² Encouraging the role of public procurement to supply school cafeterias in the promotion of short chains (Lisbon Strategy 2030). Box schemes: Farmers interact directly with consumers, virtual platforms can propel this interaction. Promoting sustainable food through primary schools in the city and through restaurants (Valencia town hall strategy for food). Food as connector to other sectors, e.g. services, ecosystems etc. Cross-sectorial alliances identifying problems and opportunities (Lucca). Linking research, innovation, education and industrial activity (Ede Foodvalley) Cultural events and food festivals mobilising civil society and strengthening cross-sectorial connections (Lucca). Linking agriculture, public procurement, business development, skills training, land use and planning (Wales: Monmouthshire Food Project). Streamlining the development of short supply chains (Lisbon Strategy 2030). Establishment of Food Market Place Ljubljana by multiple actors from different sectors. Food market and public procurement potentially strengthening intraregional linkages between urban and rural areas; regional government enabling (Tukums) Slow Food communities: cooperation among producers, processors, retailers and gastronomy.
Data & knowledge	Lack of understanding value of locally produced food. Complicated public procurement systems hard to comprehend.	Linking locally sourced / produced food to educational information. Educating children and parents about food sources & link to rural life/activities.
	Lack of time and/or interest for information exchange & data collection. Actors with low(er) capacity in collaborative platforms. Disappointments can happen.	Sensitize and educating consumers on the quality, economic and environmental advantages of local products (Lisbon Strategy 2030). Regional quality labels: enabling consumers to trust & distinguish quality products. Helping producers to market their products.
General	Lack of expertise & communication.	Open communication between rural and urban actors. Involving expert knowledge.

 $^{^{12}\} On\ food\ cooperatives\ see\ also\ \underline{https://rural-urban.eu/publications/rural-urban-business-model-profile-food-cooperatives}.$

Limits

From a governance coordination perspective, the ROBUST partners have identified a number of limits regarding proximity and GAs. A more general problem relates to unclear leadership and ownership in situations where many different stakeholders are part of participatory processes. Furthermore, it was stressed that medium proximity relationships are possibly not being promoted and limited to producers coming from very close areas. Whilst GAs aim at territory-based integrative policymaking, they do lack, at times, references for (implications for) regional rural-urban inter-dependencies (highlighted by Ede). The lack of coordination or networking body / alliance was seen with regard to SFSC Organisations acting individually (e.g. Ljubljana). The LL Helsinki stressed that small-scale farms may face logistical problems to link to urban markets. Related, the ensuring of territorial benefits and handling transaction costs might be limited when the number of small-scale producers and buyers is high. The development of cost-efficient transaction mechanisms can be a limit, too. When it comes to joint procurement / procurement rings, there are potential power imbalances, such as between small and bigger municipalities (stressed by Helsinki LL). The Ljubljana LL added that the public procurement systems appear complicated for different actors and that it takes a lot of effort to comprehend them. Furthermore, some actors, for example farmers, lack the time and/or interest to engage into additional activities for exchange of information, data collection and similar action.

Governance coordination & collaboration opportunities

LL Lucca raised an important point in the context of governing proximity. "Short food supply chains aimed at fostering rural-urban linkages need supporting structures of both logistic-organisational (e.g. food hubs) and informative nature (labelling/guarantee systems) and innovation support" (Final LL Report Lucca). ¹³ The Participatory Guarantee System under consideration in Lucca would be a tool that – through participation of producers, consumers and local authorities – might consolidate trust and build a sense of community among farmers and their customers. The PGS is expected to improve the image of producers, while providing incentives for other farmers to raise their quality and enter local markets.

The *Valencia and UK food councils* are examples for GAs bringing together different stakeholders with diverse backgrounds, such as local politicians, consumer associations, schools or regional governments. In Valencia, the *Municipal Food Council* is a formal governance mechanism, managing both food demand and supply and provides more visibility for producers in peri-urban areas. Another example for a local-level GA is the Finnish REKO Rings utilising peer-to-peer trade and exchange with potential public authority support as opportunities for overcoming limitations in circularity GAs. In Nuremberg (DE) a regional platform campaign works with local producers and links small and large ones, with the motivation to leaving no one behind. With proximity as a key premise, all these examples provide new opportunities for new rural-urban relationships to be created.

The Ljubljana Food Marketplace combines rural development, public procurement, health as well as tourism and thus fosters cross-sectoral synergies. The LL Ljubljana stressed that municipalities should support the SFSC Organisation by providing a distribution area.

The *Ede LL* pointed at regional GAs aiming at territory-based integrative policy-making to prove rural-urban links, impacts and potentials, such as the *Regio-Deal and City-Deal Food* in the *Netherlands*. Intermunicipal collaboration might also pay a greater attention to global perspectives on rural-urban interdependencies as argued by *Foodvalley Ede*.

Overall, open and balanced communication between rural and urban actors is needed for transparency as a key enabler. Furthermore, involving expert knowledge, serves to enable legal compliance and may help to balance perspectives.

¹³ For further discussion of food hubs incl. examples see also Reed, M. (2020c).

Funding & finance opportunities

A more general opportunity is increased funding for inter-municipal agreements and joint actions. The *Lucca LL* observes an ongoing *change in the food procurement systems* for schools and hospitals in Italy. Services are increasingly controlled by municipalities instead of by big firms. Another example from the local level is the *Lisbon Strategy 2030*, encouraging the role of public procurement to supply school cafeterias in the promotion of short chains. Thus, value is added to local production and opportunity for modernizing local markets created. In the *UK Preston model*, it is anchor institutes that coordinate public food procurement. In *Finland, procurement rings* are established as public bodies and between several municipalities to develop procurement agreements together with food companies. Box schemes is an GA example, where farmers can interact directly with consumers. Virtual platforms can propel this interaction. Trust is important and the produce is typically sold as ongoing weekly subscription.¹⁴

Regional quality labels can enable consumers to trust and distinguish quality products and help producers to market their products. These GAs provide opportunities to link consumers and tourists with food producers, restaurants, arts and crafts.¹⁵

Cross-sectoral connections, synergies & integration opportunities

The work on proximity in ROBUST highlighted food as connector to different types of services, including ESS, cultural services or the circular economy. Cross-sectoral working along these connectors can be rather multi-faceted as stressed by *LL Mid Wales*, highlighting links between tourism and the *promotion of local foods* or the *procurement of local food* by hospitals and schools. Related to the latter is the adapting of school curricula and education provision and the development of new skills for new and emerging industries like green technology.

The Valencia Town Hall Strategy for Food promotes sustainable food through primary schools in the city and through restaurants. The strategy serves to build networks and promotes healthy food, and, ultimately, also proximity. Similarly, the Lisbon Strategy 2030 was developed in order to streamline the development of supply chains short production and consumption of agricultural goods (Lisbon LL final report.)

In the *Monmouthshire Food Project* (Wales) agriculture is linked to public procurement, business development, skills training as well as land use and planning.

The Food Market Place Ljubljana was described as a well-functioning, cross-sectoral GA, not least because it was established by multiple actors from different sectors such as education, rural development, agriculture and tourism.

New (and original) alliances across sectors can help to identify and understand potential problems. In the case of Lucca, this comprises school education and food production, catering and distribution but also planning and agriculture in more general terms. Cultural events and food festivals are also seen as tools for mobilising civil society and strengthening connections between farmers, consumers, restaurants, citizens (LL Lucca).

The Ede Foodvalley smart growth initiative links several sectors, including research, innovation, education and industrial activity: The focus is on sustainable and healthy food systems to foster economic development and prosperity. Municipalities in the region collaborate with many regional agri-food businesses. Yet the aspiration to enhance global food security may result in lesser attention to regional rural-urban relations and interdependencies.

¹⁴ For further explanation including examples see, for instance Knickel 2020.

 $^{^{15}}$ For further explanation incl. examples see Henke, R. (2020).

Last not least, slow food communities emerge throughout the EU and beyond and as different forms of networked GAs. Producers, processors, retailers and gastronomy cooperate to promote local food, create food gardens, engage in education etc.¹⁶

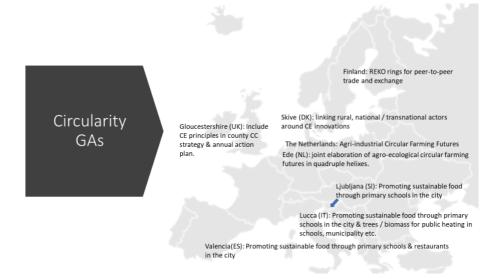
Data & knowledge opportunities

Related to the issue of cross-sectoral integration is the available and exchange of data and knowledge. Linking producers and consumers in schools can be arranged through educating both children and their parents. The focus can be on food sources and resilience and ideally also linked to rural life and activities in rural areas. The *Lisbon Strategy 2030* is motivated to sensitize and educate consumers on the quality of local products, and to be aware of the economic and environmental advantages of consuming products produced in the vicinity of the city. Overall, linking locally sourced and produced food to educational information, creates greater visibility for products produced in proximity of a place and the manifold opportunities consumption entails for both producers and consumers.

3.3 Circularity

Closing loops and cycles and enhancing the circular economy are key concerns of circularity and were addressed in several ROBUST CoPs. Closed loops and cycles, resource maximisation and sharing economies are all attributes of circularity. Relevant examples at the r-u interface include circular farming, circular waste models and local food economies. Concrete examples from ROBUST or discussed in ROBUST workshops with our partners are visualised in figure 6 below.

Figure 6 Governance Arrangements - Circularity



¹⁶ For further explanation incl. examples see Bauchinger, L. (2020).

Table 5 lists a number of limits and opportunities for GAs identified and discussed in the ROBUST project and to be further explicated below.

Table 5 Limits and opportunities for GAs - Circularity

Subject	Limits	Opportunities
Governance coordination & collaboration: local & subnational	Small and medium-sized local producers facing difficulties in meeting procurement requirements individually. Biomass energy plants and neighbours unhappy with pollution. Numerous local policy barriers to developing the circular economy.	Multi-actor and -sector collaboration on food for schools. IT based, dynamic public procurement, with nearby local authority areas (Bath and North East Somerset Council). Promoting sustainable food through primary schools in the city (Ljubljana and Lucca) and schools and restaurants (Valencia). Public institutions as initiators (and drivers) of local community initiatives (Italy). Local institutions (governments) recognising local community initiatives. New social contracts between urban and rural areas. Include the principles of the circular economy in the County's Climate Change strategy and Annual Action Plan (Gloucestershire). Joint elaboration and studying agro-ecological circular farming futures in quadruple helixes: active engagement of regional civil sector, urban and rural dwellers as well as regional food consumers (Ede). Food waste redistribution linking corporations, civil society (NGOs, CSOs) and supermarkets. Cooperative housing: Rural communities (e.g. rural & urban NGOs) owning suitable housing, e.g. ecovillages, organise the arrangement jointly.
Governance coordination & collaboration: national, EU & global	National and EU legal frameworks biased against local ownership / knowledge Absence of true pricing mechanisms for circularity performances in prevailing tradeand market policies.	Flexible cooperation arrangements/model agreements for / including different types of actors. Reciprocity contracts (France). Peer to peer connections in globalising rural-urban relationships. Contemporary governance of rural-urban relations requires 'a certain experimental space within multi-level governance settings' (i.e. the local territory might be too sensitive). Bringing rural and national / transnational actors together: showing spaces, where CE innovations are created (GreenLab Skive).
Funding & finance	Public procurement led by financial criteria, prioritising the linear economy.	Reallocation of subsidies to encourage social & environmental benefits.
Cross-sectoral connections, synergies & integration	Linking agro-industry industry and acro-ecology. Narrowly defined sectoral interests vs. regional sustainability and climate change challenges. Limited traction with local business communities for circular economy advancements.	Public-private collaboration in the use of biomass (Lucca). Integrating debates on societal needs and farmers' needs. Reforming the CAP regime. Emphasising tensions, particularly the co-existence of differentiating sustainability pathways proclaiming specific benefits (agro-industrial and agro-ecological circularity) (Ede)

Subject	Limits	Opportunities
		Policy stimulation and information about regional best practice exemplars and potentials. High-tech circular farming. Cross-sectoral cooperation involving agricultural, energy and environmental sectors.
Data & knowledge	Institutions not able to comprehend circularity innovations / normal routines limit rapid reactions. Developing strategies / building new business models without identifiable markets. Considerable management information and expertise needed to grasp the scope of the circular economy. Biases against local knowledge.	Teaching / provision of knowledge on circularity innovation. Providing knowledge and data on circularity. Use of case studies to utilise good practices. Dynamic purchasing platforms: linking suppliers with purchasers in relation to re-used products, food and drinks etc.

Limits

The Gloucestershire LL pointed at many local policy barriers to developing the circular economy and referring to the H2020 R2 π -project, including, prioritising the linear economy, poor waste management legislation, and lack of mandatory targets around circular targets. Small and medium local producers may be facing difficulties in meeting requirements individually and hence should team up with other actors (Tukums LL report).

Building cross-sectorial connections and synergies can be limited by diverse motives and drivers of sectorial actors. A case in point was made by Ede LL and the linking of agro-industry industry and agroecology with "the former being more about tech networks" and agroecology "more about soil". Furthermore, as stressed by Gloucestershire LL, without identifiable markets, developing strategies to build new business models is hard and the traction with local business communities for circular economy advancements can be limited. Organisations also need considerable management information and expertise to master the large scope of the circular economy. Another, and similar, data and knowledge related limit was brought up in Slovenia. Some institutions might face difficulties in comprehending circularity innovations, a problem further exacerbated by the fact that normal routines may limit rapid reactions.

Governance coordination & collaboration opportunities

Most of the opportunities emerging under this dimension relate to food, including promotion, preparation and procuring. Preparing food for schools can be arranged in collaboration between schools (consumers), municipality, farmers and society. *Ljubljana and Lucca* pointed at sustainable promotion of food through primary schools in the city, and *Valencia* in schools and restaurants. *Bath and North East Somerset Council* is an example for an IT based, dynamic public procurement involving nearby local authority areas. Such GAs led to increased local food sourcing in public meals and reduced transport-related CO² emissions.

Whilst, on the one hand, local institutions (governments) should recognize initiatives from local communities, *Lucca LL* argued that local community initiatives not shared with local government have less chance of success. *Ede LL* stressed that 'a certain experimental space within multi-level governance settings' might be appropriate, when narrowly defined sectoral interests meet regional sustainability and climate change challenges and the local territory might be too sensitive to solve these. This would enhance contemporary governance of rural-urban relations. This thinking also involves joint elaboration and

analyses of an *agro-ecological circular farming future* in quadruple helix systems with active engagement of regional civil sector, urban and rural dwellers as well as regional food consumers. *Gloucestershire* planes to include the principles of the circular economy in the County's Climate Change strategy and Annual Action Plan.

Reciprocity contracts a la *France* could are flexible cooperation arrangements/model agreements that include different types of actors.

GreenLab Skive, a green industrial park, is an example from the European WS. It had to overcome biases against local ownership and knowledge by bringing rural and national / transnational actors together and exploring rural spaces, where CE innovations are created. The driver of these processes needs to be based locally and able to build links across governance levels and robust network governance.

Food waste redistribution GAs are arranged by (social) enterprise focusing on redistributing food that would otherwise be wasted to other charities and social enterprises at a discount. Corporations, civil society (NGOs, CSOs) and supermarkets are linked with local government acting as regulator, host, sponsor and client.¹⁷

Another example where circularity and sharing resources is a key driver is cooperative housing, e.g. ecovillages. Rural communities (e.g. rural & urban NGOs) own suitable housing or organise the arrangement jointly. Local or central government act as regulators.¹⁸

Funding & finance opportunities

Overcoming some of funding and finance challenges described above could come in the form of reallocation of subsidies so as to encourage social and environmental benefits.

Cross-sectoral connections, synergies & integration opportunities

Climate change and the impacts on societies globally are among the fundamental challenges of our time. Integrating different perspectives in these debates is needed and an important opportunity for cross-sectoral connections and integration. What are societal needs and farmers' needs on climate change and future of agriculture and food production? How to the CAP regime and to encourage farmers and producers to create food with more environmental and social benefits? High-tech circular farming, as dealt with, for instance in Ede, is about cross-sectoral cooperation involving agricultural, energy and environmental sectors. Often, novel public-private partnerships facilitate and finance innovative research and start-up investments.¹⁹

Circularity and in the ROBUST context brought about other interesting examples. One stems from *Lucca* and is a public-private collaboration in the use of biomass. Private consortia cut trees periodically and use for heating in schools, municipal building etc.

Data & knowledge opportunities

Provision and co-creation of new knowledge and data on circularity and circularity innovation is a key opportunity in the circularity field. For a GA to succeed and as shown in the case of Green Lab Skive, qual involvement (of different levels) and alignment between people is necessary. This needs knowledge-sharing and joint thinking about how to make it equal.

¹⁷ For further explanation incl. examples see Reed, M. (2020b).

¹⁸ For further explanation incl. examples see Vihinen, H. (2020a).

¹⁹ For further explanation incl. examples see Oostindie, H. (2020c).

Dynamic purchasing platforms are useful tools to link suppliers with purchasers in relation to re-used products, food and drinks etc. They also provide opportunities to linking urban and rural areas and rural with rural areas.²⁰

3.4 Ecosystems

The ecosystems dimension deals with topics including biodiversity, soil, water, landscape, climate change. In ROBUST, it is primarily related to the Ecosystem Services CoP.²¹ Natural resources, ecosystem services, natural capital, land sparring vs. land sharing are all attributed to the ecosystems debate.²² Concrete examples include catchment-based partnerships, ecosystem services payment schemes or multi-scale planning. ROBUST worked with several specific examples or discussed them during numerous workshops. Some of them are visualised in figure 7 below.

Figure 7 Governance Arrangements - Ecosystems



Table 6 lists a number of limits and opportunities for GAs identified and discussed in the ROBUST project and to be further explicated below.

Table 6 Limits and opportunities for GAs - Ecosystems

Subject	Limits	Opportunities
Governance coordination & collaboration: local & subnational	Bottom-up approaches dominated by business model approaches (e.g. in NL). Conflicting debates on land use (Ede).	Business model-led ESS delivery (as opposed to a dominated approach) might be a key component of promising GAs. Local nature partnerships based on voluntary arrangements. Implementing water framework directive through bottom-up arrangements (Finland).

 $^{^{\}rm 20}$ For further explanation incl. examples see Reed, M. (2020a).

²¹ However, as the authors of the WP 3 final report (D3.3) pointed out there is an "important overlap between the ESS and other CoPs. For example, food provisioning is an ESS, cultural services are an ESS category, ESS enable new BMs, and green and blue infrastructures constitute public ecological infrastructure and services." Hence, many examples given here, contain also aspects relevant for other wellbeing economy dimensions.

²² The Ede LL (see final report) analysed this relationship and concluded that "differences in spatial perspectives can't be isolated from stakeholders' views on the pros and cons of rural land sharing versus land sparing strategies. The first prioritizing (further) segregation of food production from wider rural eco-system service delivery, the second with strong pleas to (re-) integrate the latter with regional food production through returning to more multifunctional rural land use practices."

Subject	Limits	Opportunities
	Informal and formal GAs existing simultaneously but conflicting	Bringing diverse actors together through NFM (Stroud Valley and Gloucestershire).
	with each other.	Planning-inspired approaches and supply of ESS (Frankfurt).
	Bigger cities dominating (e.g. Helsinki).	Building participatory, bottom-up governance communities (Lisbon).
		Building trust & bringing people together through soft actions rooted in formal structures (Frankfurt).
		Building ecological infrastructure connecting land units and ESS (Frankfurt).
		New and flexible governance models for land-access with municipal level as a mediator (Lucca).
		Natural capital mapping exercise (Gloucestershire).
		Cooperation on land use, housing, transport (Helsinki region).
		Flood risk management through nature-based solutions (UK Regional Floods and Coastal Committees).
		Environmental cooperatives as umbrella organisation regional environmental organisations (Ede).
		CAP reform pilots with a key role for agri-environmental cooperatives (NL); Dutch Environmental and Planning Act.
		Catchment partnerships as ecosystem services partnerships.
		Legally binding Sustainable Urban Drainage Schemes (SUDS) (UK).
		Experimental space offered by Metropolitan Law/Act (FrankfurtRheinMain).
		Commoning / commoning principles, incl. shared ownerships / sharing responsibility and care for natural resource management.
Governance	Lack of policy coordination (rural,	CAP reforms.
coordination & collaboration:	regional, agriculture).	Interreg & Horizon projects.
national & EU	Lack of stimulating remuneration systems for ESS delivery.	Facilitator teams to bring backgrounds and perspectives together for 'confrontation' and learning for increased
	Lack of adequate assessment systems for ESS delivery performances at lower scale.	capacities (Three-Countries Park landscape partnership BE, NL, DE).
	Difference in capacity between authorities at different levels.	
Funding & finance	GAs without firm structures may lack budgets and continuity.	Encouraging builders to use environmentally friendly materials and to integrate wildlife in building (Building with Nature
	funds / eligibility criteria tending to favour rural marginal instead of	Scheme Gloucestershire).
		Interreg projects as opportunity to be innovative.
	peri-urban areas.	Strategies capturing investment funds, specific to activity and not to location.
		Align long-term monitoring of nature-based interventions with the short-term EA funding cycles (Natural Flood Management)

Subject	Limits	Opportunities
Cross-sectoral connections,	Sector silos and lack of interconnections.	Crossing boundaries (r-u, sectoral, policy dimensions) by including stakeholders from different backgrounds.
synergies & integration	Disconnected ecosystems.	Functional regions, combining of municipalities' forces.
, and the second	Lack of mutual understanding of key concepts, such as GI	Combining CAP, land-use policy, urban food strategies, climate change and biodiversity policies.
	Dominantly present sectoral tensions, e.g. due to prominently	ESS not isolated from proximity and circularity (suggested by Ede).
	present agricultural modernisation forces.	Connection of various ecosystems in addition to food (Lisbon: Metropolitan Network of Agroparks).
	Urban and rural spatial planning traditions often / predominantly inspired by functional segregation.	Facilitator teams with complementary knowledge and skills (e.g. architects, urbanists, landscape architects, geographers etc.) and understanding of ecosystem-human interactions (Three-Countries Park landscape partnership BE, NL, DE).
		'Fourth sector' within synergistic business models: 'for-benefit' organisations combining market-based approaches with the social and environmental aims of the public/non-profit sectors.
		Partnerships for renewable energy production, e.g. cooperatives, foundations, associations and private businesses.
Data & knowledge	Indicators for demand side remaining intangible (Frankfurt).	Data and knowledge at adequate level of resolution, including using citizen science
	Monetisation concepts are still in	Mapping exercises: combining with citizen science (Latvia).
	their beginnings / very limited possibilities of application at	Citizen science dialogue to "measure" resilience.
	regional scale (Frankfurt). Technical effort to implement all	Focus on common features, rather than differences when looking at urban and rural spaces.
	ESS in Regional Land Use Planning	Risk registers.
	(Frankfurt). Lack of a holistic view and	Using ESS approach in land-use planning practice, evaluation and comparison of different planning scenarios (Frankfurt).
	interconnectedness of ESS.	GIS-based tools (e.g. 'ESS-Viewer') for the comparison of different planning scenarios (Frankfurt).
		Better informing land take decisions, reducing them, and using ESS approach in decision process (FRA).
		Bring GI idea to the attention of spatial planning experiences (Three-Countries Park landscape partnership BE, NL, DE)
General		Enthusiastic people to take the lead based on interest, knowledge, and added value.
		Creation of a safe space for partners to interact.
		Innovation from novel partnerships btw. actors who have not co-operated before.
		Interactive cooperation between different levels and scales.

Limits

One limit for constructing r-u GA relates to divergent perceptions and perceived needs in a given territory. The Ede living lab, for instance, had the intention to create a novel GA at regional level including an ESS dimension and concentrating on land sparing and land sharing. However, the debates among different actors from rural and urban settings proved to be rather sensitive.

implementing all ESS in Regional Land Use Planning appears to be difficult / impossible because of the necessary technical efforts, lack of operationalizable indicators and the time needed for this exercise. In a case study in Frankfurt, only 13 out of the 27 ESS originally envisaged could be used. Many indicators for the supply side can be made operational through available data but the demand side remains somewhat intangible (Frankfurt final LL report). Furthermore, monetisation concepts still need to be developed further. They depend on local specifics and on specialised knowledge, and "an application on the scale of the Regional Land Use Plan of the Regional Authority is not possible yet (Frankfurt final LL report).

At national level, lack of stimulating remuneration systems for ESS delivery, lack of adequate assessment systems for ESS delivery performances at lower scale and difference in capacity between authorities at different levels are identified limits.

At the thematic workshop, participants discussed the limitations of agricultural funds. They appear to be difficult to equally access when eligibility criteria tending to favour rural marginal areas over peri-urban areas.

Governance coordination & collaboration opportunities

In terms of working with and integrating ESS in planning and policymaking, both bottom-up initiatives and more formalised, planning inspired approaches have been explicated by ROBUST partners. An example for the latter is from Frankfurt. Looking back at a long history, built on formal structures and institutions and with a firm foundation and competence, this planning-inspired approach entails the supply of ESS for urban demand and in inner and outer spaces. An example for the former comes from Lisbon LL, building a participatory, bottom-up governance community.

Yet, also more formalised structures need trust building and bringing people together through soft actions. An example for inclusive regional planning from Frankfurt concerns the planning of cycle highways for commuting people in, to and from Frankfurt. The Metropolitan Law/Act also provides experimental space for and encourages actors to take responsibility in planning and inclusion of ESS.

If it comes to the managing of access to land, the final Lucca LL report argued in favour of a strong(er) role for municipalities. This subject possibly even "requires a new governance model, more flexible than the Regional Land Bank". This is because municipalities might be in a better position to act as mediators between the interests of landowners and agricultural entrepreneurs. The Helsinki final LL report discusses opportunities from multi-actor cooperation on land use, housing, transport. In the case of *Lisbon, 18 municipalities* are involved in jointly building ecological infrastructure and by connecting land units and ESS. In *Ede* an *environmental cooperative* acts as an umbrella organisation for 40 regional environmental organisations.

Noteworthy tools include *natural capital mapping exercises* (Gloucestershire). Commoning or commoning principles provide the basis for different types of GAs. Examples include shared ownerships or sharing responsibility and care for natural resource management in the areas of regenerative landscapes, ecosystems and food systems.²³

A number of GAs work with water related ESS. The 12 Regional Floods and Coastal Committees in the UK work with flood risk management through nature-based solutions and extend beyond single counties. The NFMs implemented in Stroud Valley / Wales and Gloucestershire are network governance arrangements par excellence, bringing together flood risk managers and local communities including farmers and land managers. Other multi-actor GAs are river catchment partnerships organised as ecosystem services partnerships (e.g. the River Dee in the H2020 Sherpa project).

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²³ Further explanation including examples is provided by Oostindie 2020a.

Another example for an enabling governance structure in the field of water management is from Finland, where a number of bottom-up arrangements to implement the water framework directive with key stakeholders involved and active even between programme periods are currently implemented.

Last not least *SUDS* in the *UK* have a combined focus on water quantity (flooding), water quality (pollution) biodiversity (wildlife and plants) and amenity.

Other stimulating opportunities for ESS governance include local nature partnerships, based on voluntary arrangements between multiple actors from both urban and rural areas (e.g. Lisbon).

Opportunities stemming from the EU level include CAP reforms as well as projects, including Interreg and Horizon2020 / Europe. In transboundary work across countries, facilitator teams serve to bring backgrounds and perspectives together for 'confrontation' and learning and ultimately for increased capacities (*Three-Countries Park landscape partnership BE, NL, DE*).

Funding & finance opportunities

Overall, strategies with the intention to capture investments and funding, could be specified around (bundles of) activity and not to single locations as such / alone.

A given example for a local-level GA is the *Building with Nature scheme in Gloucestershire*. This scheme provides a good opportunity for integrating circularity, urban ESS delivery and funding for builders. It encourages builders to use environmentally friendly materials and integrate wildlife in building projects, e.g. integral bird boxes in new homes. In the same area, the *Natural Flood Management sub-group* is to align long-term monitoring of nature-based interventions with the short-term EA funding cycles and through connecting multiple funding periods to the same interventions.

At EU level, Interreg and other projects provide funding opportunities for innovative solutions co-created and implemented through joint action of different actors.

Cross-sectoral connections, synergies & integration opportunities

As with other dimensions already discussed, the combining / bringing together stakeholders from different backgrounds and thus crossing boundaries between rural and urban, sectors and policy dimensions is a key for the ESS dimension, too. As argued by *Ede LL*, ESS cannot be isolated from proximity and circularity. A good example where various ecosystems are connected at local level is from *Lisbon*. The *Metropolitan Network of Agroparks* links food, landscape, culture, leisure, climate change mitigation and wellbeing.

At regional level, thinking about a functional region is important. ESS is a transboundary issue and the combination of municipalities and other actors, who are essential to involve, depends on the problem at hand (see governance coordination above). From a policy perspective, the smart combination of CAP, landuse policy, urban food strategies, climate change and biodiversity policies is key. For knowledge integration in practical work, facilitator teams with complementary knowledge and skills (e.g. architects, urbanists, landscape architects, geographers etc.) and understanding of ecosystem-human interactions prove useful. An example is the *Three-Countries Park landscape partnership* (BE, NL, DE).

The 'fourth sector' within synergistic business models is important, too. This is 'for-benefit' organisations, combining market-based approaches with the social and environmental aims of the public/non-profit sectors, thus complementing the traditional three sectors of market, state and civil society.

Partnerships for renewable energy production come in the form of different types of GAs, e.g. cooperatives, foundations, associations and private businesses. They can be both rural and urban-led and also differ in terms of openness to integrate sustainability and quality of life concerns.²⁴

²⁴ For further explanation incl. examples see Oostindie, H. (2020b).

Data & knowledge opportunities

Solid data and knowledge are highly relevant if not indispensable for the work in r-u GAs dealing with ESS. GAs need data at adequate level of resolution and operationalizable indicators. *Mapping exercises* can be combining *with citizen science* (e.g. Latvia and mapping ESS for marine spatial planning or user preference mapping used in the Åland islands). A citizen science dialogue can be used for identifying preferences but also to "measure" resilience. In the *Frankfurt final LL* report the argument was made for better informing about land take decisions, to reduce them to a necessary minimum, and to use the Ecosystem Service approach in that decision process. Furthermore, for the authors of the report the "ESS approach is suitable for the land-use planning practice, such as in the evaluation and comparison of different planning scenarios", where new tools such as a GIS-based tool ('ESS-Viewer') could be used for the comparison of different planning scenarios.

Finally, also in the field of ESS, it needs enthusiastic people to take the lead based on interest, knowledge, and added value. Innovation may come from novel partnerships composed of actors who have not cooperated before. Facilitators need to create a "safe space" for partners to interact. Interactive cooperation between different levels and scales should focus on common features, rather than differences, since in the field of ESS there is no strict division between rural and urban. In ROBUST, the Lisbon lab, for instance, helped participants to understand what ESS are about, that they have no boundaries. It enabled them to see other positions and to re-think their territory through interaction with other actors and institutions.

3.5 Heritage/Culture

This dimension concerns the role of culture and heritage in strengthening rural-urban relations. In ROBUST, it is primarily linked to the Culture and Food CoPs, but also the BM and ESS CoPs dealt with heritage and culture. Culture economy, tourism, valorisation of heritage resources and territorial identity are among the attributes. Examples from ROBUST and elsewhere include municipal cultural strategies, regional branding or gastronomic tourism. Figure 8 puts selected GAs on the map, which foster r-u linkages in the field of heritage and culture.

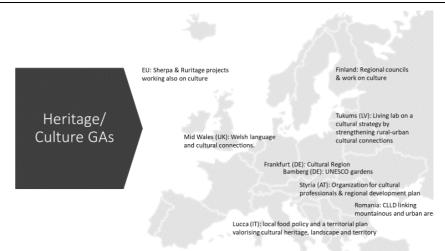


Figure 8 Governance Arrangements – Heritage / Culture

Table 7 lists a number of limits and opportunities for GAs identified and discussed in the ROBUST project and to be further explicated below.

Subject	Limits	Opportunities
Governance coordination & collaboration: local & subnational	Cultural industry strategies in cities not connected to rural areas. Lack of systematic, proactive and coherent governance approaches.	Multistakeholder and inclusive approaches for strategy development and ensuring ownership. Bringing people together: private, public, NGOs, informal associations, artists. Working across multiple levels & scales / moving beyond the local level. Distinction: participating stakeholders and responsible stakeholder (e.g. municipalities) to strengthen accountability, continuity. Euro Capital of Culture linked to surrounding rural areas (Matera /Italy). CLLD linking mountainous / rural and urban areas (e.g. in Romania). LEADER Groups organising events and building network for cultural professionals and cultural stakeholders (e.g. Styria). Bringing rural culture to cities (Bamberg UNESCO gardens). Cross-territorial agreements between municipalities. Municipal leadership (e.g. in Tukums). Cultural Region as a voluntary organization for municipalities to join, and joined activities on shared campaigns, theatre, garden heritage etc. Regional and cultural strategies to foster rural cultural activities (Styria). Regional development plans in need of support of mayors (Styria).
Governance coordination & collaboration: national & EU		SMART Specialization Strategies. Central government as stimulators of rural-urban link. Regional councils supporting culture and links to local Leader groups (Finland). EU projects and linking culture, heritage, cultural actors etc. to rural development (e.g. H2020 SHERPA & RURITAGE projects). LEADER program as a stimulator (e.g.in Wales). CAP national plans.
Funding & finance	Cultural investment in cities not radiating outside cities.	Supporting / strengthening regional strategies through enabling regional development agencies to co-fund activities (Styria).
Cross-sectoral connections, synergies & integration	Lack of integrated strategy Diverse needs of local residents and tourists unaddressed. Over-tourism.	Developing a clear vision and plan for cultural events (Tukums). Monitoring and quality control mechanisms for trust-building (Tukums). Developing a cultural strategy creating cohesion (Tukums Developing a local food policy and a territorial plan to contrast urbansprawl, steer synergies between the city and the countryside and valorise cultural heritage, landscape and territory (Plain of Lucca). Mid Wales (UK): Welsh language and cultural connections.
General	Exclusion of marginalised groups	Culture as instrument to attract people and businesses to rural areas. Engage marginalized groups in cultural activities / rural life.

Limits

The limits in this field can be manifold. The *Tukums LL* pointed at the absence of systematic and proactive governance approaches hampering the emergence of a coherent vision for cultural life in the region. Such

a vision should be backed by institutional collaboration and attempts to attract investment. Furthermore, cultural industry strategies in cities tend to be usually linked to urban regeneration and cultural investment in cities do not necessarily radiate to areas surrounding the cities. The question in connection to both phenomena is - how to better connect to rural areas? Other limits discussed concern the exclusion of marginalised groups in cultural activities between rural and urban areas and the question of over-tourism.

Governance coordination & collaboration opportunities

Governance arrangements in this field are established at multiple levels of governance and often serve as a bridge for cultural professionals linking urban and rural areas. Looking at the local level, *CLLD activities and LEADER LAGs* provide important rural-urban links. CLLD serve to link rural, mountainous and urban areas, for instance in Romania but also elsewhere. In *Styria*, a LEADER Group serves to organize events and build network for cultural professionals. This serves as an entry point and connector for many cultural stakeholders from the outer districts of the region and who would otherwise lack this network. Also, in *Wales*, the *LEADER program* is seen as a stimulator and opportunity structure.

In the case of *Bamberg* in Germany, *UNESCO gardens* serve to bring rural culture to the city. In *Matera /Italy*, which was *Euro Capital of Culture* in 2019, rural areas around the city benefited too. The *Tukums* LL stressed that at local level, an organisation taking the lead is needed. In *Tukums* this was the municipality. Whilst the cultural strategy potentially creates a more cohesive cultural repertoire it is largely depending on collaboration between different regional stakeholders.

Also, the regional level might be a driving force. Styria LL stressed that rural cultural activities could be fostered in regional and cultural strategies. There are opportunities in the regional development plan, if mayors supported it. In Frankfurt, the Cultural Region (www.krfrm.de) was established for and by municipalities and as a voluntary organization. It is possible for any municipality to apply for membership. Thus, these areas somewhat "overshadowed by Frankfurt" receive both cultural and physical access through joint activities, shared campaigns, theatre, garden heritage etc. In Finland, culture is a voluntary issue for regional councils. Some councils support it, others do not. As in other countries, there is also a strong cultural element in the LEADER local action groups.

As to stimulating rural-urban links in the field of culture, municipalities can cooperate and agree to provide jointly a wider offer in the region. Moreover, the development of a strategy serves to ensure ownership by the communities. In some cases, it has proven to be useful to make a clear distinction between participating stakeholders and those who take responsibilities (e.g. municipalities). In the case of Frankfurt this is a company owned by public authorities, enabling accountability and continuity. SMART Specialization Strategies can promote rural-urban synergies by containing cultural elements.

In addition to the *LEADER program and CLLD activities*, the EU fosters rural-urban links in the cultural field also through projects such as ROBUST. Further, the *H2020 SHERPA Project* links culture, future liveability and rural development and includes r-u dimensions. The *RURITAGE project* links numerous actors from several territories around the theme of cultural heritage to boost development. Last not least, the *CAP national plans* provide opportunities for r-u links in culture.

Overall, culture is a crucial aspect for rural areas and serves to attract both people and businesses. Culture can also be a formidable opportunity to engage with marginalized groups and involve them in cultural activities and life.

Funding & finance opportunities

In terms of funding and finance culture should be recognised in regional strategies. *Regional development agencies*, such as in the case of *Styria* can co-fund cultural activities.

Cross-sectoral connections, synergies & integration opportunities

The development of a clear vision and plan for cultural events is a key enabler as described by the *Tukums LL*. This should be followed by monitoring and quality control mechanisms. The latter could support trust-building, e.g. for regional food products sold at cultural events etc. (Tukums final LL report).

4 Lessons learned: enhancing wellbeing economies and rural-urban synergies

This chapter examines which governance arrangements work in different spatial, socio-economic and political contexts.

Table 8 lists governance arrangements between rural and urban areas and enablers for building them, which might be implemented and replicated in different locations of the EU. The table contains five wellbeing economy dimensions, selected key lessons for replication and the respective governance levels concerned or to be engaged. Whilst the lessons are discussed in in chapter 3 in more detail, what should be highlighted here is that a number of more general lessons emerged from the analysis of each wellbeing dimension. These are listed at the top of table 8.

At the start and throughout the lifecycle of each GA it is important to clarify needs, financing options, and possible differences and to establish "common goals". Mutual understanding can be promoted of through (public) discussion on r-u issues, and by focussing on common features, rather than differences, when looking at urban and rural spaces. It is important that the facilitator (team) creates a safe space for partners to interact. Proving new information and data or co-creating a common vision with alternative pathways through tools like natural steps or foresight have proved successful in ROBUST and elsewhere. Sharing good experiences but also learning lessons from failures could support the impact of any GA, too. In most cases, network governance is most appropriate, that is, working across multiple levels and scales of governance and possibly / where applicable, also including actors from beyond the local level. Whilst the LEADER program and work in local action groups, for instance, was seen as a stimulator for r-u links, more space should be given to link rural and urban CLLD. A reformed CAP was mentioned in this and many other connections, such as propelling GAs in the field of ESS, circularity, proximity and services. Throughout all wellbeing economy dimensions, we found micro-level initiatives working across territories and sectors, intermunicipal and regional GAs. For all of them, leadership and, related, accountability is of key concern. Public sector leadership and public funding are highly important, too - both at municipal and regional level (e.g. through spatial or development planning). At the same time, in all wellbeing dimensions, the work across sectors through networks of actors is a core ingredient of rural-urban GAs. It is the combination of different perspectives that enables the develop of appropriate mechanisms and approaches for resilient and sustainable solutions for territorial development - often being limited by sectoral regulation taken place in silos.

The ROBUST project also organised an interactive European Workshop with representatives from local, regional and national authorities, EU and international actors, NGOs and researchers to discuss the transferability and replicability of governance arrangements. A number of important enablers were discussed, particularly seen from local and regional perspectives. These can be seen in addition to the replication lessons summarised in table 8. Some of the workshop results can also be seen as enablers for governance arrangements discussed in chapter 3.

Regarding *food policy and procurement* and in addition to the territorial dimension of food, other factors should also be considered, including social, fair and good working conditions. Sustainability thinking should go beyond economic and environmental considerations. Certification bodies, either private or government-led need to be included in food policy.²⁵ Local initiatives need strong government support to become a success and their ownership is crucial.²⁶

²⁵ Reflections from a participant from the Republic of Ireland.

²⁶ Reflections from a Belgian participant.

Table 8 Rural-urban governance arrangements and enablers for effective and sustainable building - Wellbeing economy perspectives

Wellbeing	Key lessons for replication	Gover	nance level to	engage / con	cerned	
Economy Dimension		EU	National	Regional	Local	NGOs/ CSOs
General	Coordinate and clarify needs, financing, possible differences and establish "common goals".			x	x	x
lessons	Promoting of mutual understanding through (public) discussion on r-u issues	х	x	х	x	х
	Create a safe space for partners to interact			x	x	x
	Use a multistakeholder and inclusive approaches for strategy development and ensuring ownership.			x	х	x
	Building trust & bringing people together through soft actions rooted in formal structures			x	х	x
	Thematic working groups with local urban and rural stakeholders.			х	x	x
	Focus on common features, rather than differences when looking at urban and rural spaces	x	x	х	x	x
	Flexible cooperation arrangements/model agreements for / including different types of actors			х	x	x
	Sharing good experiences & learning lessons from failures.	x	х	х	x	x
	Work across multiple levels and scales of governance / move beyond the local level => network governance		х	х	x	x
	Voluntary agreements on sharing resources and planning within unions of municipalities				x	
	Regional organisations promoting inter-communal co-operation / acting as mediators			х	x	x
	Central government should stimulate rural-urban links		х			
	LEADER program as a stimulator for r-u links	x	х	x	х	x
	Reforming the CAP regime	x	х			
Social	Growth Deal partnership				х	х
Services	Extending existing "rural" collaboration structures to peri-urban and urban areas		х	х	х	х
	Budgets for inter-municipal collaboration among mayors of depopulating regions		х	х		
	Region-deals between public and private partners			х	х	х
	Territorial Employment Pacts			х	x	x
	Regional budget for municipalities cooperating in planning & production of services		x	x	x	
	Integrated plans, across policy domains			x	х	x

Wellbeing	Key lessons for replication	Gover	nance level to	engage / con	cerned	
Economy Dimension		EU	National	Regional	Local	NGOs/ CSOs
	Link rural issues to urban strategies, and vice versa => both cohesion policy & CAP	х	x			
Proximity	Cultural events and food festivals, e.g. such as in Lucca			х	x	х
	Food Market Place Ljubljana by multiple actors from different sectors.			х	x	х
	'Speed-dating' meetings - direct interaction between producers & consumers.				x	х
	Coordination between small producers in public procurement				x	х
	Municipalities supporting SFSC Organisation				x	х
	Educating children and parents about food sources & link to rural life/activities.	х	х	х	x	х
	Food councils with participation of different stakeholders			х	x	х
	Participatory Guarantee Systems			х	x	х
	Regio-Deals and City-Deal Foods			х	x	х
	Procurement rings, such in Finland			х	x	х
	Preston model: anchor institutes coordinating public food procurement			х	x	х
	Monmouthshire Food Project: Linking agriculture, public procurement, business development, skills training, land use and planning			х	x	x
	Lisbon Strategy 2030 Streamlining the development of short supply chains, educating consumers on the quality, economic and environmental advantages of local products, encouraging public procurement in school cafeterias			х	x	х
	Inter-municipal collaboration adding global perspectives, example Ede Foodvalley	x	x	x	x	x

Wellbeing	Key lessons for replication	Gover	Governance level to engage / concerned				
Economy Dimension		EU	National	Regional	Local	NGOs/ CSOs	
Circularity	Promote sustainable food through primary schools and restaurants in the city			х	x	x	
	IT based, dynamic public procurement, with nearby local authority areas			х	x	x	
	Public institutions may initiate and drive local community initiative				x	х	
	Reciprocity contracts			x	x		
	Peer-to-peer trade and exchange with potential public authority support			x	x	x	
	Public-private collaboration in the use of biomass				x	x	
	Teaching / provision of knowledge on circularity innovation.	x	x	х	х	x	
	Providing knowledge and data on circularity.	x	х	х	x	x	
Ecosystems	Local nature partnerships based on voluntary arrangements			х	x	x	
	Building participatory, bottom-up governance communities			х	x	x	
	New and flexible governance models for land-access with municipal level as a mediator			х	x	x	
	Natural capital mapping exercise			х	x	x	
	Using ESS approach in land-use planning practice, evaluation and comparison of different planning scenarios			х	x	x	
	Flood risk management through nature-based solutions			х	x	x	
	Encouraging builders to use environmentally friendly materials and to integrate wildlife in building				x	x	
	Mapping exercises: combining with citizen science & citizen science dialogue to "measure" resilience				x	x	
	At local level, municipal leadership might be appropriate.				x	x	
Heritage/	Develop a clear vision and plan for cultural events incl. monitoring and quality control mechanisms.			х	x	x	
Culture	Involve people from private, public, NGOs, informal associations, artists.			x	x	x	
	Treat culture as instrument to attract people and businesses to rural areas.			х	x	x	
	Embrace culture as an opportunity to engage marginalized groups in cultural activities / rural life.			х	x	x	
	Develop regional and cultural strategies to foster rural cultural activities			x	х	x	
	Regional development plans involving culture – get support of mayors			х	x	x	

Institutions created to protect small producers are important, too. Overall, the principle of equality in proximity-related GAs is recommended, meaning that once everyone is visible, motivation is created.²⁷ Finally, people need to have opportunities to get in contact with local products in their city. ²⁸

In terms of *social services* and because they are arranged at different levels in different countries, WS participants argued that simple generalisations about replicability should be avoided. However, both in the fields of *education and transport* inter-municipal cooperation was considered as important or very important. In the field of transport much depends on rural-urban differences and realities of peoples' lives. In sparsely populated areas in Sweden, for instance, many people own a car, whilst in other countries, the situation might be different. As a general enabler in mobility and public transportation planning, participants pointed at governmental build-up. Another theme was *broadband development*. The coordination responsibility, according to WS participants, should be with the government / public sector since "people do not necessarily understand what they need in the future (demand vs. supply)". Thus, the recommendation of what not to replicate is demand-driven approaches. It should rather be (central) governments, who drive broadband development.

Linking rural, urban and peri-urban areas through *spatial planning processes* a number of lessons were shared and discussed at the European WS, too.²⁹ As starting point, actors and stakeholders, assisted by a good facilitator, need to identify common interests to be dealt with in the cooperation. The GA partners may look into functionality of regions and as driving the incentives schemes for cooperation (e.g. money, service provision). Municipalities may build more strategic cooperation.

For the working on *green infrastructure*³⁰ *in spatial planning*, a number of key replicable lessons where highlighted at the EU WS. Many points are also applicable in other fields of ESS and the wellbeing economy. To allow for an equal access to participation between actors from different levels, capacity building might be needed, since differences in capacities between the different actors can hamper development processes. Traditional spatial planning professionals do not necessarily have the skills to link into green infrastructure planning. Multi- and trans-disciplinarity approaches need good facilitators to get people working / talking together in the pursuit of a common goal.

Adding a *cross-border dimension in green infrastructure*, a number of lessons were shared by the Three-Countries Park landscape partnership (BE, NL, DE), which are also applicable elsewhere. In the transboundary setting, voluntary contributions are key, and the negotiation process is the backbone of collaboration. Different backgrounds and perspectives can be brought together through different participatory methods, including 'confrontation'. This stimulates engagement, joint learning and capacity development.

Linking global guidelines with local practices and for delivering SDGs, lessons can be learned from UN-Habitat.³¹ Both regarding horizontal and vertical GAs governance mechanisms are strengthen by incorporating urban-rural linkages into multisectoral, multi-level and multi-stakeholder governance. The delivery of SDGs requires policies, strategies and action plans that are horizontally, vertically and sectorally integrated. Horizontal integration is across different spatial scales in metropolitan regions, adjacent cities and towns, including rural hinterlands. Vertically integration is across different levels of engagement and official decision-making. Sectoral integration concerns the public and private sectors, civil society organisations, research and professional institutions, as well as formal and informal civic associations.

²⁷ Reflections from a participant from Nuremberg / Germany.

²⁸ Reflections from a Spanish participant.

²⁹ Experience shared by a Swedish representative.

³⁰ The Green Infrastructure Strategy defines GI as 'a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services' in both rural and urban settings (EC, 2013a).

³¹ These examples were presented by S. Piesek / UN Habitat at the European WS.

5 Conclusions

In the chapters above we have presented the ROBUST approach and results of examining governance arrangements (GAs) that enhance rural-urban synergies. Our framework suggests perceiving rural-urban relationships two-way and co-constituted, and highlights the agency of rural actors. The localities under scrutiny encompass both concrete communities with democratic legitimacy, and various social, economic and political sites and processes, flows and interactions which go far beyond their own territory. During the course of the project, the learnings of experimenting in the eleven Living Labs (WP3) and engaging with ongoing national, EU and global policy discussions (WP6) it became evident that essential rural-urban governance arrangements are evolving around foundations for rural-urban wellbeing. Wellbeing economy offered us an up-to-date lens through which to identify and structure promising governance arrangements for rural-urban synergies on the one hand and to pinpoint limits and opportunities, on the other hand. An important prerequisite for governance arrangements in the ROBUST framework was that they need to be equal and applicable in different contexts (WP1).

5.1 Network Governance

Network(ed) governance has thus been the "default" governance arrangement and used as an analytical tool to study the characteristics of governance arrangements. Governance experiments (WP3) in Living Labs have been levers of change that enable more effective governance for rural-urban synergy. Living Labs have used the capacity offered by the project to provide a focal point for networked governance. It became evident that influencing existing networks was most effective when establishing a new arrangement.

There is no single form of effective governance arrangement for rural-urban synergy. A well-functioning arrangement is always embedded in its purpose and context. However, some key characteristics can be identified. An effective GA is most often multi-level and multi-actor, and the public sector and/or local government role is crucial. An efficient governance arrangement can evolve both top-down or bottom-up. However, if top-down, attention should be paid to balanced participation building, as rural-urban inequalities are deeply entrenched. GAs should reflect the needs of all areas and serve both. Establishment and manifestation of the governance arrangement may take years.

The elements of network governance proved to be important for effective GAs. They imply a negotiated, multi-stakeholder process; a collaborative system of decision design and decision making, characterized by significant degrees of self-governing; with attendant resources, commitments and shared power; sufficient common cause; and a pragmatic understanding that to achieve the needed capacity and agency requires appropriate institutional and organizational arrangements beyond that of government. These elements improve the effectivity of a mature arrangement, but they are also needed during the establishment and development process of any GA.³²

A common goal seems to be the easiest beneficial GA element to realise, whereas more effort needs to be taken in order to reach the autonomy to make decisions, responsiveness to both rural and urban

³² The Mid Wales LL concluded that the "need for network governance and cross-sectoral collaboration anticipated by stakeholders will increase because of post-pandemic pressures on public finances; viewed as an opportunity for community empowerment and to extend cooperative and social enterprise models."

communities, a situation where all parties commit resources, and a situation where all arrangements are as equal and inclusive as possible.

The rural-urban synergy effectiveness of governance arrangements depends also on the scope of their purposes: does the governance arrangement exist for rural-urban synergy only, or rather for some other goal linked to or including this synergy. We came across only few cases, where the arrangement was in place or being established specifically for rural-urban interaction as such. Multilocal living, as an example of rural-urban interaction at a distance may require such arrangements more widely. In particular in the case of spatial planning and regional development the effectiveness to rural-urban synergies is not so self-evident, it depends on how strongly the rural-urban particularity is taken into account.

5.2 Limits and opportunities of governance arrangements

Governance arrangements can be used for piloting economic and ecological zones in peri-urban areas and for testing new dynamics.³³ So-called 'build together, benefit together' - approaches have been implemented in cases of transition from mining industries to green economies, and for stimulating circular economy growth in some countries (Mahendra & Seto 2019). At the European WS it was argued that a rather "urban cohesion policy" and other policies for regional development are still competing and need better integration. An opportunity to extend successful GAs across territories and link policy fields are e.g. Community Led Local Development (CLLD) approaches, such as LEADER, which can be "opened up for urban topics and memberships from urban fields"³⁴. Respecting local knowledge and bridging different governance levels is key in the development of governance arrangements. This needs a stronger focus on people who can bridge knowledge systems and more diverse skill sets from both rural and urban settings.

Potential limits are *biases against local knowledge*. This needs to be overcome and people need to create strong alignment (e.g. people accepting wind turbines, solar panels etc.). Also, regarding national and EU legal frameworks there may be some bias against local knowledge.³⁵ How to overcome these biases? In concrete terms, actors from Green Lab Skive *showed* actors from outside their rural area, *the spaces where the Green Lab was supposed to be created*. They *brought people with different backgrounds together* in rural Skive. Such processes need a facilitator, a bridge builder between rural and urban areas and a host of a continuous development aimed at overcoming biases. The key message is thus to *respect local knowledge* and to *bring together different levels of governance*.

Some of the GAs discussed in this report were based on civil society activities, while others had more institutionalised structures for operation with local authority in a key position to coordinate and manage them. Other examples fused new GAs as "soft mechanisms" into established structures and for solving particular tasks. Some of the GAs described above involve multiple actors — others are rather mechanisms for bringing together specific groups of actors (e.g. budgets / funding for collaboration). Irrespective of who is the core driver in the GA collaboration / network, the promoting of mutual understanding on rural-urban issues, through discussions, ideally also involving the public, is a key opportunity generated by any GA.

Ultimately, collaboration across different sectors and levels, sometimes a "breaking of sector silos" is needed. Active individuals, who are able to understand problems and opportunities in a given territory from a more holistic perspective and who can mediate between conflicting views are enablers of cooperation and change. It is a complex matter to build network governance between citizens and authorities or other actors. A balancing of all governance players' perspectives and tools that can bring

³³ By S. Piesek from UN Habitat. She added that whilst adjustments to governance and planning require the introduction of laws or the adaptation of existing regulations to the new and changing realities of growing cities, designating special zones where a new relationship between rural and urban areas could be tested in practice through pilot projects could bring effective results.

³⁴ Comment from a WS participant.

³⁵ This was discussed at the European Workshop.

differentiating views closer are needed. Foresight exercises and studies, for instance, increase the ability for people to understand other contexts. They can build or re-frame links, facilitate abstraction and enable people to jointly think about different issues relevant in their local context and to ultimately start thinking about alternatives to solve practical problems together. As was stressed in the European WS,³⁶ there are several types of innovation including interaction innovation by people and science or knowledge innovation. These are sometimes colliding between different governance levels and it needs a good methodology or toolbox to bring these together. Open innovation and co-creation vs. classic project management help bridging between arenas.

Overall, rural and urban actors from different backgrounds should be involved in co-creation of joint solutions for their areas through formal and informal institutional governance arrangements through network governance. The governance arrangements should be multi-level and involve multiple scales. They should operate according to the principles of good governance, including transparency, trust, and equity. Yet, in some countries, it is difficult to engage civil society in participatory processes, especially without a clear leadership. There needs to be room for experimenting with new innovations and partnerships. Thus, replication means that any good practice or tool needs to be utilised elsewhere needs to be embedded in specific local context, its history and (administrative) structures.

Governance structures need to endure over time. For newly established GAs and those based on pilot funding, there is a danger that they might disappear when subsidies or other support ends. It thus needs more stable and durable support systems beyond short funding periods and to enable the sustainability and longevity of governance arrangements. This could be achieved by starting fewer projects and making sure that those who started can maintain structures and or work to continue.

Key messages for general replicability and transferability:

- You can transfer and replicate the principle, but not the application.
- Persuade the necessary actors about the relevance of rural-urban interaction.
- Clarify the (geographic or thematic) rural-urban scope of the arrangement carefully not all arrangements require proximity.
- Respect the network governance arrangement characteristics.
- Learn from and use existing arrangements ROBUST library contains examples of various business models and more thematic solutions.
- Use a multistakeholder and inclusive approaches for strategy development and ensuring ownership.
- Capitalize on flexible cooperation arrangements and model agreements for / including different types of actors.
- Encourage voluntary agreements on sharing resources and planning within unions of municipalities.
- Use regional organisations for promoting inter-communal co-operation / acting as mediators.
- Lobby central government to take a stronger role in stimulating rural-urban links.
- LEADER program can stimulate r-u links the existing "rural" collaboration structures can be extended to peri-urban and urban areas.
- Allocate budgets for inter-municipal collaboration, such as planning & production of services.
- Region-deals between public and private partners are a basis for a governance arrangement.
- Encourage the use of integrated plans across policy domains.
- Link rural issues to urban strategies, and vice versa (in both cohesion policy & CAP).
- Make use of anchor institutes in coordinating public procurement.

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³⁶ Thea Lyng Thompsen, CEO Bæredygtig Herning.

5.3 Looking back and looking ahead

It seems reasonable to us to suggest that there is growing recognition of the importance for urban areas of rural territories, albeit that we have concluded that to have only limited value unless the relationships, dependencies, and synergies between the two are recognised as being valuable and pivotal by all concerned.

One impact of the coronavirus outbreak would appear to be that it has caused many to reflect on the relative functions, value, and assets of territories of different types and to reappraise the complex web of relationships and interdependencies between them. This is not theorising or speculation alone, such rethinking evolves as policy and then actions with highly practical effects in terms of what physical infrastructure is developed where, how, and where public services are delivered, food supply systems, and the management of open and shared public space - and the decision-making processes and governance arrangements required for them. Among the new governance arrangements which we identified are those driven by the need to respond to the trend of growing multi-locality. How to deal with people who live in both urban and rural areas, given that our societies are organised on the presumption that citizens are mono-, not multi-located? In this case, the new governance arrangements being proposed contain various elements such as multi-local citizenship models with appropriate changes in terms of suffrage and taxation, and schemes where central government financial transfers to local government are made differently.

Certainly, at the EU policy level, the appearance of an evolving Rural Vision (Long Term Vision for Rural Areas), in mid-2021 has refocused attention very strongly on the ways in which rural areas and the contributions of their actors and activities might best be optimized — not solely in terms of the rural per se but also in the sense of rural-urban relations. Elements within the evolving Rural Vision such as Rural Pacts, rural proofing and possible revisions to rural-urban typologies, all have clear governance dimensions and appear set to drive forward at speed both policy and implementation mechanisms.

In the context of those broader considerations, what both the ROBUST Living Labs and CoPs have done and analysed can be sensibly conceived of as a series of localised attempted solutions to a similar set of existing and known challenges, and a shared desire to effectively apply a set of governance principles related to rural-urban relations around the emerging wellbeing economy.

The potential of rural—urban synergies should be supported in policy to improve holistic development in rural—urban interface, as balanced arrangements do not appear spontaneously but are a result of determined action by committed parties. We hope that the report will be able to concretize the main principles of effective governance arrangements in rural-urban synergies, as well as inspire and encourage such activities among the committed rural-urban parties. Their multitude and diversity combined with the innovativeness of governance arrangements discussed above are a hopeful signal for future rural-urban interaction.

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Annex 1: Living lab profiles³⁷

Living Lab Ede (Netherlands)

Key characteristics	Description
Location	Ede municipality, Netherlands
Territorial level ⁵	Local Administrative Unit (LAU) ⁶
Area (km²) ⁷	318
Population density (inhabitants/km) ²	364
Population change (%) in last 5 years in % per year (approx. 2015–2020) 8	+0.9%
Local context	Intensive agri- and agri-tech growth centre orientated toglobal markets via a cross-sectoral Food Valley initiative.Protected rural landscapes. Costly homes and land.
Rural-urban characteristics	Predominantly rural. Largely agri-rural landscape with polycentric urban centres, which are home to two-thirdsof the 115,000 population.
Practice partner type	Local government
Research partner type	University
Professional background of partners ⁹	Social sciences, Planning, Environmental Sciences
Lead partner ¹⁰	Co-leadership
Priority CoPs ¹¹	Food, ESS, BMLM
Main outputs ¹²	Co-developing concrete practical tools for policy implementation: indicators for current municipal urban food policy dashboarding, indicators for better agriculturalESS delivery through the menu-card approach Co-producing good practice examples: inventory of circular farming topics

⁵ Source: European Commission, 2021, unless indicated otherwise

⁶ Source: https://ec.europa.eu/eurostat/web/nuts/local-administrative-units

⁷ The three characteristics "Area", "Population density" and "Population change" presented in each Living Lab profiles are based on Knickel et al., 2021

⁸ Source: Knickel et al., 2021

⁹ Based on the data from the three surveys run over the course of the ROBUST project

¹⁰ Based on the baseline survey data

 $^{^{11}}$ In the cases where Living Lab work significantly contributed to one or two CoPs, the CoP(s) is highlighted in bold

¹² Based on the synthesis report elaborated by the WP3 team

 $^{^{}m 37}$ The living lab profiles have been compiled by the WP3 team.

Living Lab Frankfurt Rhein Main (Germany)

Key characteristics	Description
Location	Frankfurt Rhein Main, Germany
Territorial level	Equivalent to four complete NUTS3 entities plus partsof three other NUTS3 entities.
Area (km²)	2458
Population density (inhabitants/km²)	960
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+1.2%
Local context	Half of all regional jobs are in Frankfurt city, which is growing quickly due to its global and national economicimportance.
Rural-urban characteristics	Mixed urban and peri-urban with a large city. Despite the presence of Frankfurt city, the region is polycentricand contains large areas of high quality rural open (outer) space.
Practice partner type	Regional development agency
Research partner type	Consulting firm
Professional background of partners	Planning, Economics, Environmental Sciences, Agricultural Sciences
Lead partner	Practice partner
Priority CoPs	ESS, PI&SS, BMLM
Main outputs	New data: multiple datasets and study reports (e.g. spatial clustering analysis, commuting, statistics) Testing & deliberating novel policy implementation:
	enhanced regional land use plan

Living Lab Gloucestershire (United Kingdom)

Key characteristics	Description
Location	Gloucestershire County, England, UK
Territorial level	NUTS 3 ¹³
Area (km²)	3150
Population density (inhabitants/km²)	239
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+0.9%
Local context	Two-tier municipal system, with planning decisionsdelegated to second-tier districts.
Rural-urban characteristics	Predominantly rural. Affluent rural county with two adjacent main urban centres. Well-served with transport infrastructure and over 50% of landscape isenvironmentally designated.
Practice partner type	Local government
Research partner type	University
Professional background of partners	Social sciences, Geography, Economic development, Planning, Flood risk management
Lead partner	Research partner
Priority CoPs	Food, ESS , BMLM
Main outputs	Testing and deliberating novel policy implementation: a new flood management sub- group, agreed drafted wording for the school food contract tender (with dynamic food procurement as an option) Co-producing good practice examples: circularbusiness inventories

¹³ (Eurostat, 2018)

Living Lab Helsinki (Finland)

Key characteristics	Description
Location	Helsinki-Uusimaa Region, Finland
Territorial level	NUTS 3
Area (km²)	9568
Population density (inhabitants/km²)	176
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+1.0%
Local context	Rural-urban working patterns, seasonal summer urban-to-rural exodus, and urban-to-urban commuting/enterprise investment (Helsinki-Tallinn).
Rural-urban characteristics	National capital metro-region. The area's population is split roughly 50:50 between Helsinki city and rural Uusimaa.
Practice partner type	Local government
Research partner type	Research institute
Professional background of partners	Social sciences, Geography, Management, Politicalscience
Lead partner	Co-leadership
Priority CoPs	BMLM, ESS, PI & SS
Main outputs	New data on labour mobility, foreign direct investment and multiple locational occupancy; REKO-ring business study

Living Lab Lisbon (Portugal)

Key characteristics	Description
Location	Lisbon Metropolitan Area, Portugal
Territorial level	The living lab covers both NUTS 2 and NUTS 3territories.
Area (km²)	3015
Population density (inhabitants/km²)	944
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+1.3%
Local context	The region of 18 municipalities experiences peri- urban pressures and an unbalanced territorial development pattern, which exerts pressure on high-value natural capital.
Rural-urban characteristics	National capital metro-region. Home to 25% of the national population. Urbanisation pressure linked torural depopulation and migration.
Practice partner type	Regional development agency
Research partner type	University
Professional background of partners	Geography, Planning, Environmental Sciences
Lead partner	Practice partner / co-leadership
Priority CoPs	BMLM, ESS , PI & SS
Main outputs	Strategic visioning: integrated city-region strategy(territorial plan)
	Co-developing concrete practical tools for policy implementation: green infrastructure criteria, mapping ecosystem services
	Testing and deliberating novel policy implementation: AgroParks network, study plan forsustainable food in the curriculum
	Co-producing good practice examples: ecosystembusiness models short food supply chains in procurement

Living Lab Ljubljana (Slovenia)

Key characteristics	Description
Location	Ljubljana Region, Slovenia
Territorial level	NUTS 3 level
Area (km²)	2334
Population density (inhabitants/km²)	237
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+0.8%
Local context	25 municipalities make up the region, including thosein peripheral rural regions. High consumer preferencefor local food and regional landscape protection.
Rural-urban characteristics	National capital metro-region. Home to 26% of the Slovene population.
Practice partner type	Regional development agency
Research partner type	Consulting firm
Professional background of partners	Regional development, Environmental Sciences, Management, Planning
Lead partner	Co-leadership
Priority CoPs	BMLM, Food, PI & SS
Main outputs	New data and co-developing concrete practical toolsfor policy implementation: direct sales mapping, analysis and reports on local food marketplace and public procurement for Ljubljana's food strategy
	Co-producing good practice examples: short foodsupply chain examples on how to expand regionalfood procurement → new practices that enhance regional operations

Living Lab Lucca (Italy)

Key characteristics	Description
Location	Lucca Province, Italy
Territorial level	NUTS 3 level
Area (km²)	1773
Population density (inhabitants/km²)	220
Population change (%) in last 5 years in % per year (approx. 2015–2020)	-0.1%
Local context	Second-tier authority of 38 municipalities, including the UNESCO World Heritage city of Lucca. The area is characterised by a distinctive villa-based cultural landscapes
Rural-urban characteristics	Predominantly rural. Lucca province is a varied area of rural landscapes, including coast, mountains and plains.
Practice partner type	Local government
Research partner type	University
Professional background of partners	Economics (e.g. Food and Agricultural Economics), Planning, International relations, Environmental Sciences
Lead partner	Co-leadership / practice partner
Priority CoPs	Culture, ESS, Food
Main outputs	New data: land bank and shared assets data Testing and deliberating novel policy implementation: intermunicipal food policy (joint management model to share functions on food policies), draft Provincial Territorial Coordination Plan

Living Lab Mid-Wales (United Kingdom)

Key characteristics	Description
Location	Mid-Wales, Wales, UK
Territorial level	Mid Wales approximately covers the two NUTS3 regions of Powys and South West Wales ¹⁴ .
Area (km²)	17,034
Population density (inhabitants/km²)	60
Population change (%) in last 5 years in % per year (approximately 2015–2020)	-0.2%
Local context	No large-scale urban settlements within the 9 municipalities. The importance of smaller, markettowns as employment and service centres is emphasised.
Rural-urban characteristics	Exclusively rural. Faces challenges as a predominantlyrural region, including remoteness, limited infrastructure, access to markets and services, and post-Brexit changes.
Practice partner type	Local government
Research partner type	University
Professional background of partners	Geography, Regional development (including rural development), Social sciences, Economics
Lead partner	Research partner
Priority CoPs	Culture, Food, PI&SS
Main outputs	New data for policy implementation: Evidence Report, study on multi-locality seasonal residency, 'How Local is Local?' Report as a knowledge input toinform the Monmouthshire County Council's food policy work
	Strategic visioning: Rural vision, WLGA RuralManifesto, Local food planning
	Testing and deliberating novel policy implementation: local and regional food planning

¹⁴ https://ec.europa.eu/eurostat/documents/345175/7451602/nuts-map-UK.pdf

Living Lab Styria (Austria)

Key characteristics	Description
Location	Metropolitan Area Styria, Austria
Territorial level	NUTS 2 level
Area (km²)	1890
Population density (inhabitants / km²)	261
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+1.1%
Local context	The metropolitan region of Styria includes 51 municipalities, including Graz, Austria's second city. The region is orientated towards post-industrial hi- tech growth.
Rural-urban characteristics	A polycentric city-region, dominated by Graz. Urban net migration leading to suburbanisation and car- commuter traffic challenges. Public service demandsof a growing, affluent population.
Practice partner type	Regional development agency
Research partner type	Research institute
Professional background of partners	Social sciences, Regional development, Geography
Lead partner	Research partner / Co-leadership
Priority CoPs	BMLM, Culture, PI&SS
Main outputs	Testing and deliberating novel policy implementation & co- producing good practice examples: shared multi-modal transport and municipal budget setting examples and best practicereports → new practices that enhance regional operations Co-developing concrete practical tools for policy implementation: online database / regional visitorguide (intercommunal rural-urban cultural networking and tourism promotion)

Living Lab Tukums (Latvia)

Key characteristics	Description
Location	Tukums Municipality, Latvia
Territorial level	Local Administrative Unit (LAU) ¹⁵
Area (km²)	1195
Population density (inhabitants/km²)	23
Population change (%) in last 5 years in % per year (approx. 2015–2020)	-1.2%
Local context	Tukums municipality, which is home to a little under 30,000, was created in 2009 and will be merged withadjacent councils in 2021.
Rural-urban characteristics	Predominantly rural. Tukums is largely rural/semi- rural, including some remote and underserved areas, which are experiencing depopulation.
Practice partner type	Local government
Research partner type	Research institute
Professional background of partners	Social sciences, Planning, Regional development
Lead partner	Research partner / co-leadership
Priority CoPs	Culture, Food, PI&SS
Main outputs	Strategic visioning: Tukums cultural strategy
	New data on Tukums market and public infrastructure Co-developing concrete practical tools & practicesfor policy implementation: food labels, place branding and local food marketing initiatives

¹⁵ https://ec.europa.eu/eurostat/web/nuts/local-administrative-units

Living Lab Valencia (Spain)

Key characteristics	Description
Location	Province of Valencia, Spain
Territorial level	NUTS 3 level
Area (km²)	10,812
Population density (inhabitants/km²)	228
Population change (%) in last 5 years in % per year (approx. 2015–2020)	+1.0%
Local context	The region is divided into three distinct industrial/economic regions, namely the coast, theinland plains and the peripheral sierra.
Rural-urban characteristics	Mixed urban and rural with large city. Economic development is uneven and directed towards thecoast, causing concerns about rural poverty, depopulation and urban quality of life.
Practice partner type	Non-profit association representing the interests of municipalities and provinces
Research partner type	University
Professional background of partners	Geography, Regional development, EnvironmentalSciences, Economics, Social sciences
Lead partner	Research partner
Priority CoPs	BMLM, Food, PI&SS
Main outputs	New data for novel policy implementation: recommendations on extension of territorial employment pacts (TEP) into peripheral areas, a study report on school food procurement models and sustainability good practice, recommendations and report on digital service provision, plus also rural transport, cultural resource services, and the rural ATM network
	Co-producing good practice examples: short foodsupply chains in procurement