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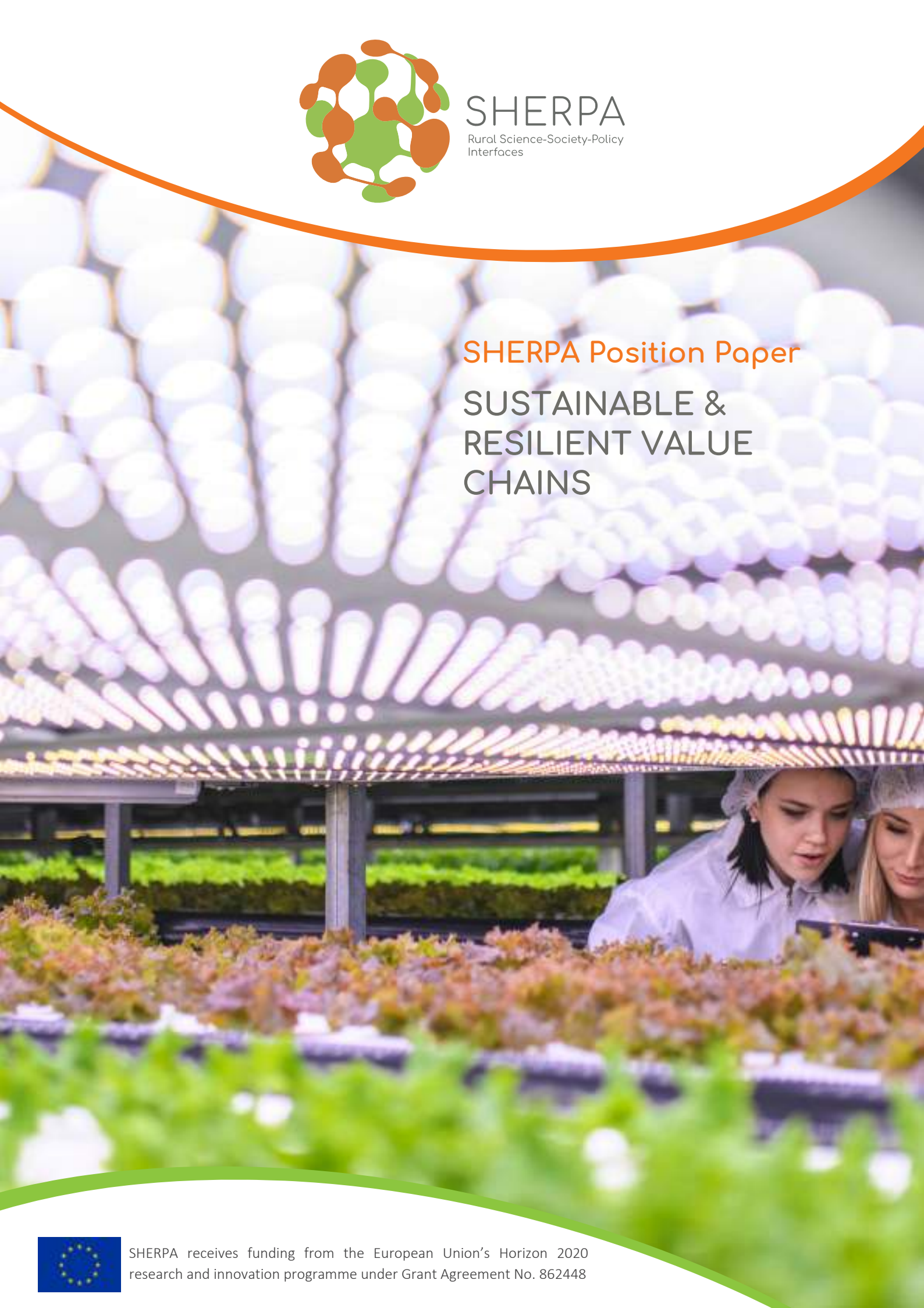
Rural Science-Society-Policy Interfaces



SHERPA Position Paper

SUSTAINABLE & RESILIENT VALUE CHAINS

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Sustainable Hub to Engage into Rural Policies with Actors (SHERPA) is a four-year project (2019-2023) with 17 partners funded by the Horizon 2020 programme. It aims to gather knowledge thatcontributes to the formulation of recommendations for future policies relevant to EU ruralareas, by creating a science-society-policy interface which provides a hub for knowledge andpolicy. Find out more on our website:

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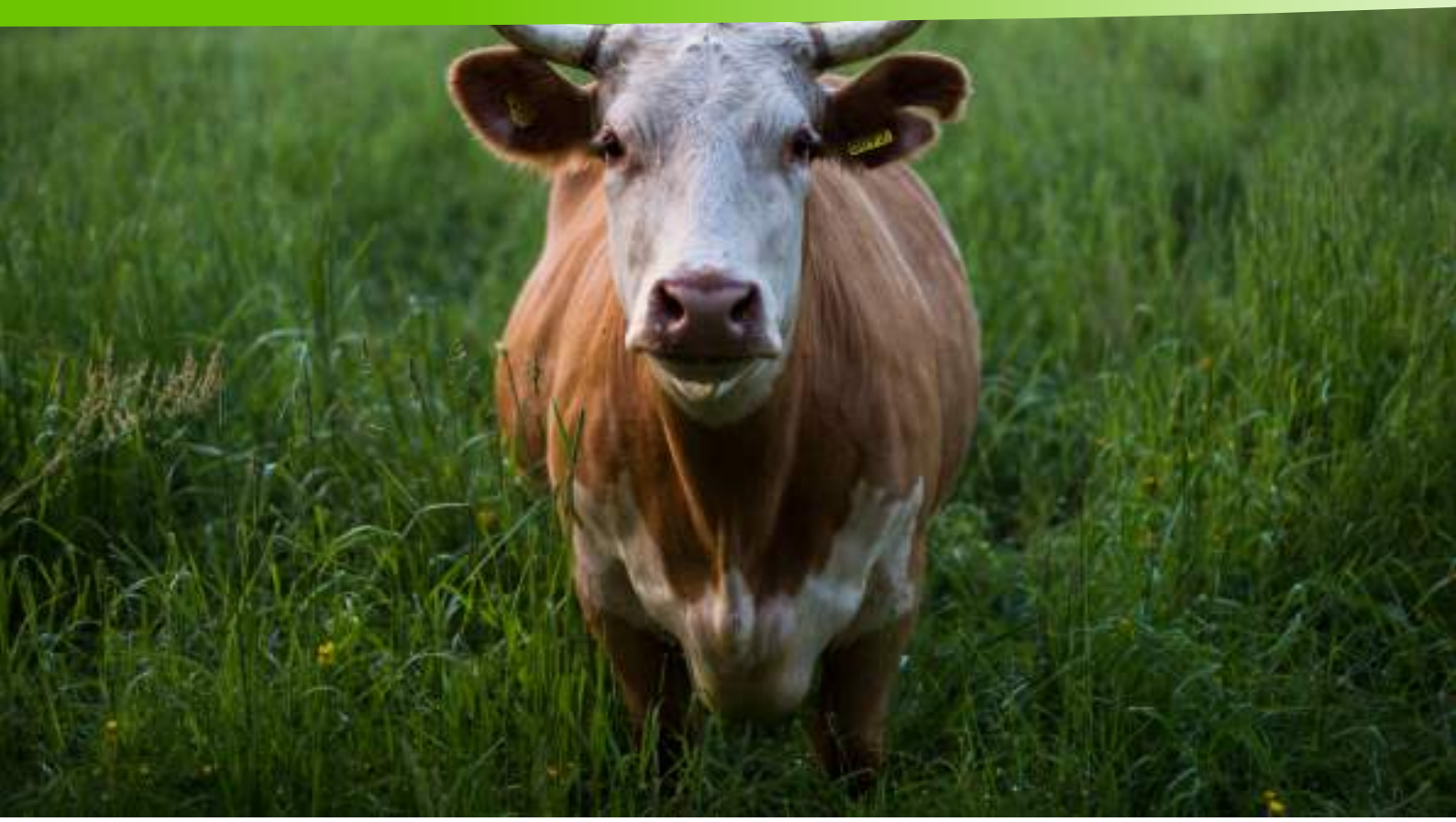
1. Introduction

This Position Paper draws upon the specific contributions from the thirteen MAPs which dedicated the third MAP cycle to reflect upon sustainable and resilient value chains. They have assessed the needs and challenges in the area covered by the MAPs, policy interventions and actions implemented, and formulated recommendations for both policy and research, in relation to sustainable and resilient value chains. Each of the MAPs selected sustainable and resilient value chains and relevant sub-topics according to their members' interest and for the area covered by the MAP; therefore, not all the topics included in the Sustainable and Resilient Value Chains Discussion Paper have been engaged within the individual work of the MAPs.

The MAPs' contributions reflected in this Position Paper focused on the main themes set out in the Discussion Paper by Bognar & Schwarz (2022). Attention in the third MAP Cycle focused on strengthening the role of producers in supply chains by increasing their market power through participation in alternative supply chain models and empowering them through education and training; building trust between supply chain stakeholders by increasing horizontal and vertical coordination, and communication of sustainable practices.

These themes and relative sub-themes are resumed and explored further, as informed by the reflection and work carried out by individual MAPs. To gather evidence from the MAPs, the SHERPA process undertaken in the third cycle organised the MAPs' discussion along four main guiding questions:

- What are the needs of the area covered by the MAP in relation to sustainable and resilient value chains?
- What are the policy interventions already in place, and what are examples of actions taken by local actors addressing these needs implemented in the area covered by the MAP?
- Which policy interventions (i.e. instruments, measures) are recommended by MAP members to be implemented at the local, regional, and/or national level? How can the EU support these interventions?
- What are the knowledge gaps, and what research projects are needed?



2. Key messages

Sustainable and resilient value chains are necessary for sustainable growth in rural areas, for food security, and for the sustainable use of resources. The use of new forms of business models and cooperation can empower producers in rural areas while facilitating social and environmental co-benefits.

The EU's Long-Term Vision for Rural Areas (LTVRA) up to 2040 highlights the 'active' role rural areas will play in transitions towards sustainable value chains and achieving the objectives of the EGD, Farm to Fork Strategy, and Circular Economy Action Plan. Under the LTVRA, the European Commission emphasizes how the preservation of natural resources, the restoration of landscapes, including cultural ones, the greening of farming activities and shortening supply chains will make rural areas more resilient to climate change, natural hazards and economic crises: 'As providers of services that protect ecosystems and solutions for carbon neutrality, rural areas have an increasingly important role to play in climate change mitigation and the sustainable circular economy. Rural areas should build on sustainable farming, forestry, agri-food economic activities and a diversified range of greener economic activities promoting carbon-farming and local, community-based high-quality production'.

The set of MAPs addressing the topic of Sustainable and Resilient Value Chains in Rural Areas, as per Bognar & Schwarz (2022) have highlighted a range of national, regional, and local policies and initiatives, emphasising various needs and challenges in the transition towards SVCs.

The MAPs concur that large-scale and long-term investments will be needed to facilitate the transition towards SVCs, including investments in infrastructure, development of legal frameworks, formal and informal training for rural producers. Despite efforts, there are still limited opportunities for horizontal and vertical coordination in many rural areas, particularly in the Eastern European MAPs. Improved representation of producers' interests in the agri-food chain is needed as well as in relation with political decision makers. Local contexts need to be accounted for and incorporated into policy designs. In particular, EU level tools for implementing strategies need to be adaptable to local levels.

Based on the guiding questions given, the MAPs' position papers highlighted the following:

Needs in relation to sustainable and resilient value chains include: the development of an infrastructure to create and sustain alternative supply chains; legislation and legal rules to clarify how sustainable value chains should operate; strategies to communicate with consumers; both formal and informal training programmes for rural producers; improvement of the capacities of rural producers to withstand to exposures to hazards; and better cooperation and vertical integration to include all value chain actors from producers to consumers, as well as AKIS actors and public administrations.

Policy interventions already in place and actions of local actors have taken in addressing needs include: 1) territorial level governance; 2) cooperation of local producers; 3) re-connecting producers and consumers; 4) rural community initiatives; 5) training and education; and 6) infrastructure development.

Recommended policy interventions by MAPs include 1) facilitating education and training by providing incentives, actively engaging academia, expanding agricultural education units, and developing curriculum that reflects the real needs of farmers; 2) providing financial support through more flexible funding criteria, incentivising collaboration between municipalities, and providing substantial aid for practices that are environmentally-friendly; 3) increasing the resilience of producers through research and development programmes, and long term funding for transitioning practices; 4) decreasing bureaucratic burdens through simplified regulations and taxation systems, and streamlining administrative procedures; and 5) communicating sustainability by promoting alternative value chains beyond geographic regions they are located in, creating local labels that are easily recognisable, and reduce risks for participating in quality schemes.

Research projects needed include: collaborative research projects to foster adoption of new technologies, social innovations and collaborative approaches in piloting new initiatives in sustainable value chains; understanding how principles and processes of sustainable and resilient value chains can be scaled up to global food systems, improve the understanding of the presence, influence and interaction of structural, economic, regulatory, cultural and other relevant factors that hinder or facilitate the emergence of producer empowerment in traditional value chains; identify and analyse efficient mechanisms for promoting local products; and improve the understanding of the behaviour, motivations, values and preferences of rural and urban actors and communities to strengthen cooperation and solidarity.

3. Current situation of the MAPs

In regard to the current situation of the MAPs, most of the MAPs highlighted the potential opportunities within their areas for increasing the market power of rural producers through participation in alternative supply chains, such as short supply chains or local agri-food chains. Several MAPs noted increasing top-down and bottom-up initiatives to develop territorial/local food systems and short supply chains (Circular Bioeconomy Lithuania MAP, Tuscany Italy MAP, Casentino Italy MAP, Montagna Toscana Italy MAP), as well as increasing funding opportunities dedicated to the integration of farms in short agri-food chains (Iasi Romania MAP). The MAPs noted opportunities within such alternative supply chains to promote the actions of small rural farmers that contribute to the valorisation of agri-food products, in particular their participation in quality schemes (Tuscany Italy MAP, Casentino Italy MAP, Montagna Toscana Italy MAP, Rural Transylvania Romania MAP, Iasi Romania MAP, and Central Greece MAP). The quality of agri-food products was noted to be a key strength in the three Greek MAPs, as short supply chains and local agri-food chains can be synergised with the regional tourism sector (a key sector for rural areas in these MAPs in which a large proportion of the rural workforce is employed in) through the promotion of local food and beverage (South Aegean Greece MAP, Central Greece MAP, and Peloponnese Greece MAP).

The Pays Pyrénées-Méditerranée France MAP and Nienburg Germany MAP noted that such alternative forms of participation for rural producers offered a more resilient model that can fill gaps created by exogenous events within traditional supply chains. Indeed, within these MAPs, the Covid crisis accentuated the development of alternative distribution systems and short circuits, including the multiplication of local and solidarity-based initiatives for the sale of products, facilitating direct contact between producers and consumers, collective approaches, and collaborations between rural producers and large-scale distributors.

Outside of participation in alternative agri-food supply chains, some MAPs highlight opportunities for increased added value for rural producers by participating in new types of supply chains, in particular those associated with the development of a European bioeconomy where the production of high added-value products using biomass can create new income sources for producers (Rural Mapping Bulgaria MAP and Circular Bioeconomy Lithuania MAP).

Other MAPs also highlighted the importance of empowering producers through education and training (Circular Bioeconomy Lithuania MAP, Rural Mapping Bulgaria MAP, and Rural Transylvania Romania MAP), in order to equip rural producers with the knowledge and skills needed for transitions to sustainable value chains in rural sectors. The Rural Transylvania Romania MAP in particular noted increasing opportunities for cooperation initiatives for the transfer of knowledge, with 16 projects received funding dedicated to cooperation between farmers, research bodies, universities, advisors, to increase the degree of innovation and of adaptation of research results to sectoral needs. Education and training can create strengthen social networks and social capital necessary in order to tackle the barriers to the development of sustainable practices in farming and forestry systems.

However, this empowerment of rural producers through education and training relies on the participation of young rural producers. Some of the MAPs highlight the negative impacts associated with an ageing workforce and a long-term exodus of young people from rural areas with attempts to equip rural producers with new knowledge and skills (Iasi Romania MAP).

In addition to empowering rural producers, some of the MAPs highlighted the opportunities of facilitating relationships built on mutual trust through both horizontal and vertical coordination but stressed the difficulties associated with achieving this (e.g. Tuscany Italy MAP, Nienburg Germany MAP).

While the Rural Transylvania Romania MAP and Iasi Romania MAP note increasingly positive dynamics of horizontal coordination between producer groups in their regions, with farmers in Transylvania having a high appetence for cooperation in recent years (with the number of agricultural cooperatives increasing by 50% in just two years), in their current situation, most MAPs emphasize the lack of both vertical and horizontal coordination within their respective areas. For the Rural Transylvania Romania MAP, horizontal cooperation is difficult, with the number of farmers with membership in cooperatives being very low. In the context of 99% of farms from Transylvania being small and medium size, this poor horizontal integration makes it challenging to sell their products on the market. In some areas, horizontal cooperation is difficult because the agri-food sector is characterised by disorganisation with low levels of initiatives for cooperation (Iasi Romania MAP, Rural Prosperity Hungary MAP), as well as lacking the capital, innovation, and digitalisation needed to coordinate producers (Arges Romania MAP).

The MAPs also highlighted the lack of resilience in the capacity of rural producers to withstand exogenous impacts. Recent global shocks, such as the COVID-19 pandemic, and the war in Ukraine, have demonstrated the need for supply chains to become more resilient to exogenous events. In particular, the responsive capacities of supply chains (the capacity to adapt to transform supply chains when they are no longer robust against exogenous impacts) must become more robust. However, even for alternative supply chains, it is challenging to meet demands for food supply while the supply of available products has tended to decrease due to exogenous impacts (Pays Pyrénées-Méditerranée France MAP). Exogenous impacts have destabilised international markets for agricultural products, leading to increasing production costs for agricultural products, particularly due to increasing fertiliser prices resulting from the war in Ukraine (Central Greece MAP, Peloponnese Greece MAP). Income stability in agriculture is increasingly difficult to ensure, as economic performance is not only dependent on unpredictable output prices but also on extreme natural events (Circular Bioeconomy Lithuania MAP).

4. Positions from the MAPs

This section refers to the main themes set out in the SHERPA Discussion Paper on sustainable and resilient value chains by Bognar & Schwarz (2022), namely: strengthening the role of producers, building trust between supply chain stakeholders, and verifying and communicating sustainability. These themes and relative sub-themes are explored, informed by the position papers by individual MAPs.

4.1 Identified needs and challenges

4.1.1 Strengthening the role of producers

According to Swinnen et al (2021), due to subsidy reforms in the late 1990s and early 2000s, European agri-food producers have become more vulnerable to global market volatilities over time, with their share of added value becoming highly dependent on commodity prices. This vulnerability means that agri-food producers experience exogenous events more acutely than they have in the past. Therefore, ways in which producers can have their role within supply chains strengthened were explored in the discussion paper by Bognar & Schwarz (2022), which highlighted the following strategies:

- Increasing market power through participation in alternative supply chain models;
- Empowerment through education and training;
- Increasing their resilience and adaptability by fostering their responsive capacities.

Participation in alternative value chains

Participation in alternative supply chains, such as short supply chains or local agri-food value chains is understood to be a reaction to the shortcomings of conventional supply chains, in that they allow producers to capture a larger proportion of the added value of a product otherwise absorbed by intermediaries downstream (Malak-Rawlikowska et al 2019). These alternative supply chains allow for opportunities to have more direct relations with consumers. In addition, alternative supply chains can offer opportunities for more resilient supply chains during periods of instability by offering opportunities to have more proximate relations with consumers, as was demonstrated during COVID lockdowns (Bakalis et al 2020; Nemes et al 2021). Online tools, such as apps and online marketplaces, can be an effective means to communicate with consumers about the processes underlying production, authenticity of local goods, regulation and control, and how these can translate into higher costs for goods. By increasing communication and direct contact between consumers and producers, alternative value chains can strengthen bonds and facilitate trust in products.

While the Discussion Paper focused on opportunities associated with alternative agri-food value chains, the MAPs highlighted the need to optimize alternative agri-food value chains by connecting them with synergistic objectives, in particular promoting: the bioeconomy (Rural Mapping Bulgaria MAP); agri-tourism (Central Greece MAP); and health and education (Pays Pyrénées-Méditerranée France MAP). For promoting the bioeconomy, Rural Mapping Bulgaria MAP highlights the need to minimise losses in agri-food value chains from production and transport, storage, processing and marketing, to consumption.

Regional value chains based on the use of raw materials to create value-added networks can be created to mobilise innovation and improve the economic efficiency of production. The Central Greece MAP noted the need to promote local agri-food value chains through the tourism sector, in which tourists could be informed about environmentally sustainable practices adopted in the early stages of production (such as wine, honey, and olive oil) all the way to the packaging stages. The promotion of sustainably produced goods could increase both tourism traffic and consumption of locally-produced goods. The Pays Pyrénées-Méditerranée France MAP referenced the need to link health and food through local agri-food chains, by promoting and educating local populations on environmentally- and healthy-friendly food and practices (such as increasing the share of plant proteins or combatting waste) while enhancing the local culinary heritage.

The MAPs also emphasised the need to develop an infrastructure to create and sustain alternative supply chains, highlighting the need for formal rules and tools to strengthen local trade (Central Greece MAP; Peloponnese Greece MAP; South Aegean MAP; Iasi Romania MAP; Arges Romania MAP; Rural Prosperity Hungary MAP, Nienburg Germany MAP).

Both the Central Greece MAP and the Peloponnese Greece MAP highlighted the need for legal entities and legislation to clarify the rules within which short supply chains or local value chains should operate. This is to ensure that the means to make alternative supply chains sustainable are provided. A legal framework should establish the rules and conditions under which value chain actors can come together to create added value "based on commonly established ethical, social, and environmental priorities" (Central Greece MAP), as the goal should not just be profit but also a shift towards "socially responsible trade focusing on public good and benefit" (Peloponnese Greece MAP). The Peloponnese Greece MAP notes that such a legal framework will take time to establish, and therefore suggests the need for the establishment of non-profit organisations to play the role of a control mechanism during the interim period who can regulate the rules for value chain operations. The Arges Romania MAP emphasised the need for more rigorous food safety rules to ensure a higher degree of conformity for locally produced goods, in order to distinguish such goods to make them more attractive to consumers.

Other MAPs noted the need for the establishment of online tools to bring producers closer to consumers (South Aegean Greece MAP, Peloponnese Greece MAP, Iasi Romania MAP and Rural Prosperity Hungary MAP, Nienburg Germany MAP). Social media channels could be utilised to regional producers to share information and stories of sustainable production methods with consumers (South Aegean Greece MAP), develop databases of market information on local producers (Rural Prosperity Hungary MAP), as well as to communicate new trends, prices, and new technologies and digital tools that can be tailored to consumer preferences (Peloponnese Greece MAP). Such channels could assist in bringing about the realisation of short supply chains by directly connecting producers with consumers (Central Greece MAP) as well as help consumers better understand the role and contribution of producers to the value chain (Peloponnese Greece MAP, Nienburg Germany MAP).

The MAPs also highlighted some of the potential challenges to the implementation and success of alternative value chains that were featured in the Discussion Paper, in particular the potential lack of consumer understanding or awareness of alternative supply chains and spatial challenges, such as the lack of proximity to urban areas.

Strategies to communicate with and educate consumers are needed to increase the information on local products and to increase the population's consumption of goods produced within alternative value chains (Rural Transylvania Romania MAP). Particularly for the MAPs in Eastern Europe, there are low levels of awareness of the importance of consuming local products (Rural Prosperity Hungary MAP, Rural Transylvania Romania MAP), and although there is a growing trend of consumer demand for "traditional agri-food products", local products are often unknown or insufficiently recognised (Rural Transylvania Romania MAP). In addition, local geographical indicators are often considered to be a "marketing trick," with consumers lacking favourable associations with geographical products and unsure of additional guarantees of quality when purchasing local products (Rural Transylvania Romania MAP). Thus, there is a need to better communicate quality standards to consumers (see below).

Proximity to urban areas can impact short supply chains, where rural producers can sell their goods either in farm shops or at farmers markets. If a rural producer cannot regularly sell their goods at a farmers' market or if the producer is located in an area that is hard to reach for consumers, then in-person direct sales are not a feasible option for such producers.

Thus, peripheral areas are at a disadvantage because important sales of products in terms of "volume and value" occur in urban areas and also because the costs associated with direct sales are much higher than for those in peri-urban areas (Rural Transylvania Romania MAP). Other spatial challenges for MAPs include fragmentation where the local availability of quantities and the quality of goods can vary greatly, as well as the definition of short or local value chains (Arges Romania MAP).

Regarding the latter, defining value chains by the distance between producers and consumers can restrict the marketplace for members in the Arges Romania MAP, whose largest market (Bucharest) is over 100 km away. Thus, there is a need for a more flexible definition of short or local value chains, that includes alternative criterion besides distance, such as the number of intermediaries between primary producers and consumers.

Empowering producers through education and training

The Discussion Paper highlights the need to a strategic approach to facilitating knowledge, skills, and competencies required for transitions to sustainable value chains in rural sectors. Education and training can contribute to tackling barriers to the adoption of sustainable practices, particularly for farming and forestry systems. Learning strategies will require adequate organisational structures and should include themes on transformations to sustainable practices in the curriculum of formal educational programmes to create a new generation of rural producers paying greater attention to sustainability. Such education and training could also increase awareness of information and communication technology tools, which will be key to the transformation towards sustainable practices.

Indeed, many of the MAPs emphasise the need for education and training programmes for rural producers specifically aimed at facilitating the adoption of sustainable practices (Rural Mapping Bulgaria MAP, Pays Pyrénées-Méditerranée France MAP, Central Greece MAP, Tuscany Italy MAP, Casentino Italy MAP, Montagna Toscana Italy MAP, Circular Bioeconomy Latvia MAP, Iasi Romania MAP, South Aegean Greece MAP, Rural Transylvania Romania MAP, Arges Romania MAP), as it would be a key step in the transition to sustainable value chains. Education and training have the potential to raise awareness at the community, local, and regional level, on the benefits of sustainable value chains as well as help producers better understand the issues related to environmental, economic and social factors (Central Greece MAP). The MAPs emphasised the need to address gaps in the delivery of relevant education and training programs to facilitate knowledge transfer as well as to address shortages of well-qualified personnel and specialists that will be necessary for transitions to sustainable value chains.

However, the MAPs note several challenges related to empowerment through education and training. Of note is the self-perpetuating link between the level of education and willingness to adopt sustainable practices. The Central Greece MAP argues that the younger generation of farmers pay more attention to sustainability because in most cases they have higher levels of education and are more exposed to such practices than previous generations. They are also more familiar with innovative practices, new technologies and digital tools, and are aware of consumer preferences. Because of this, the MAP found young farmers to be quite interested and engaged with issues associated with the transition to sustainable value chains.

However, the Arges Romania MAP and Rural Transylvania Romania MAP note the other side of the coin of this issue – that the level of education is directly proportional to the desire for new information and openness to adopt good practices. The lack of education and training among producers in these regions perpetuate "poor openness to innovative solutions in production." Small farms in particular use traditional knowledge without integrating innovations because this is the only knowledge the farmers have. This lack of openness can lead to the perpetuation of practices with poor results and leaves farmers v

The need for education, development of new skills, and training for the adoption of new practices to occur outside of formal institutions and courses is also highlighted by the Italian Mountain MAPs (Tuscany Italy MAP, Casentino Italy MAP, Montagna Toscana Italy MAP). For example, the chestnut value chain utilises traditional and manual activities and the knowledge required to conduct such activities is mainly garnered through informal intergenerational transfers of knowledge through either peer learning (i.e. through parents or grandparents or collective learning (i.e. through training at mills and drying buildings), rather than through formal courses. Producers often informally meet to exchange technical knowledge and often organise such informal training through word-of-mouth.

Several MAPs noted challenges associated with the availability of resources to facilitate education and training (Circular Bioeconomy Lithuania MAP; Iasi Romania MAP; Rural Transylvania Romania MAP), both in terms of human resources and financial resources. The Circular Bioeconomy Lithuania MAP and Iasi Romania MAP note the lack of availability and time for well qualified individuals to dedicate to rural community initiatives and training, as well as a lack of certified professionals and appropriate workforce. The Circular Bioeconomy Lithuania MAP also notes the challenge of a lack of financial resources to cover the costs of personnel for education and training in rural areas. In addition to the lack of resources, there is a lack of infrastructure for the transfer of knowledge, such as advisory services and qualification structures (Iasi Romania MAP, Rural Transylvania Romania MAP, Arges Romania MAP).

Increasing responsive capacities of producers

Addressing not just the capacities of rural producers to adapt to the negative impacts of exogenous events, such as the pandemic and climate change, but also providing resources (both financial and informational) to give producers the ability to transform their practices and their methods of production when they are no longer robust against exogenous impacts ('responsive capacities – see Meuwissen et al 2021) were emphasised in the Discussion Paper. Indeed, several MAPs highlighted the need for long-term solutions to improve the capacities of rural producers to withstand to exposures to hazards (Pays Pyrénées-Méditerranée France MAP; South Aegean Greece MAP; Tuscany Italy MAP; Casentino Italy MAP; Montagna Toscana Italy MAP; Nienburg Germany MAP, Circular Bioeconomy Lithuania MAP; Zielone Sasieztwo Poland MAP; Rural Transylvania Romania MAP; Arges Romania MAP; Peloponnese Greece MAP). However, balancing the need to increase the resiliency of rural producers will be challenging in regions where the market places demands for cheaper goods, as highlighted by the Zielone Sasieztwo Poland MAP.

In addition, some MAPs highlighted the challenges presented by excessive bureaucracy (Rural Transylvania Romania MAP; Arges Romania MAP; Circular Bioeconomy Lithuania MAP), which makes it difficult for farmers in particular to shift their practices. Examples of excessive bureaucracy include a lack of predictability for regulation, thick legislation that is difficult to comprehend, difficult-to-access information, and over-regulation which makes it difficult to access financial sources (Rural Transylvania Romania MAP; Arges Romania MAP). For the last example, the Arges Romania MAP stresses the need for simplified procedures to access financial sources, as regulatory hurdles often create insurmountable obstacles for farmers. In particular, small farmers who lack equity and have difficulties accessing credit systems creates the need for adapting co-financing contributions relative to the size of the beneficiary farm.

In addition, practices recommended at the European level often do not take into consideration local or regional specificities and are inapplicable to particular on-the-ground characteristics (Rural Transylvania Romania MAP; Circular Bioeconomy Lithuania MAP). Such situations are aggravated by the absence of support programmes for farmers to adapt and transform (Rural Transylvania Romania MAP).

4.1.2 Building trust between supply chain stakeholders

Transitioning to resilient and sustainable value chains require changes to institutional arrangements that reflect collaborative supply chain relationships. New forms of vertical and horizontal cooperation can be effective methods of overcoming many of the existing power imbalances in supply chains. Such collaborative supply chains depend on alternative forms of social organisation, which is influenced by group norms that are important pre-conditions for the sustainability of these alternative networks, and mutual trust between the different supply chain actors (Charatsari et al., 2018). However, producers in rural areas often have narrow social networks which limits collaborative opportunities (McElwee, 2006). The involvement of trusted intermediaries (e.g. advisors) and cooperation with heterogeneous stakeholders enlarge social networks for rural producers and build trust in these networks, facilitating interactive innovation processes to re-negotiate supply chain governance (Bognar and Schwarz, 2022).

However, building sufficient trust between producers and different supply chain actors is a long-term process and a range of related needs and challenges have been identified by several MAPs. Increasing cooperation is a commonly identified challenge and need to enhance trust between value chain actors (e.g. Zielone Sasieztwo Poland MAP, Tuscany Italy MAPs, Lithuania MAP, Central Greece MAP, Nienburg Germany MAP, Rural Transylvania Romania MAP). The MAPs stress the importance of cooperation and vertical integration to include all value chain actors from producers to consumers, as well as AKIS actors and public administrations. Important trust-building aspects that are highlighted include a joint vision building process (e.g. Central Greece MAP), generating a common understanding of the roles, actions and benefits of the different value chain actors involved (e.g. Nienburg Germany MAP), formalisation of cooperation through establishing collective contracts and legal entities with clear roles and responsibilities agreed on by all involved actors (e.g. Lithuania MAP, Central Greece MAP) and administrative support and streamlined policy procedures without overly high bureaucratic burden (Tuscany Italy MAPs).

Local producers also rely on the strength of informal social ties and on the networking and intermediary role of local associations (e.g. the 'Bioeroi association' in the case of the Tuscany MAPs, Italy). Both the roles of the associations and the relationships and level of trust occurring in the area are driving forces of horizontal cooperation (e.g. Tuscany Italy MAP, Nienburg Germany MAP). In this context, MAPs highlight the need for the creation of production cooperatives and producer organisations enabling access to as many farmers as possible (e.g. Rural Transylvania Romania MAP), which provide a means for improving farmers' bargaining power, value added and income stability of individual producers. In the context of former communist regimes this meets the challenge of overcoming a reluctance to cooperate due to negative experience of nationalised collective agricultural systems. But this reluctance might become weaker with the younger generations of producers (Iasi Romania MAP).

Focussing on the promotion of local value chains, the Peleponnese Greece MAP identified the need to incentivise collaboration at local level. Further insights are needed about the type and design of incentives and their potential impact on trust-building processes. Several MAPs highlight the discussion of promoting local value chains in relation to social aspects and benefits such as socially responsible trade and social-cultural benefits for the rural communities (e.g. Peloponnese Greece MAP and Central Greece MAP). There is a need to establish market places for local value chains as community meeting places utilising their potential to contribute to re-connecting local producers and consumers (e.g. Nienburg Germany MAP). Beyond the establishment of physical community meeting places collective projects and shared governance, e.g. community supported agriculture and community cooperatives, re-connect producers and consumers ((e.g. Tuscany Italy MAPs). Such direct interactions can increase the valorisation of production and produce and help to improve the level of trust of consumers towards local producers (e.g. Iasi Romania MAP).

Re-connecting producers and consumers can also be improved through digital tools (websites, social media, tools for developing online shopping facilities, etc.) providing information in open-source (including ethical and social values of produce) (e.g. Iasi Romania MAP and Rural Transylvania Romania MAP, Peloponnese Greece MAP). However, the identified need for digital tools does not only relate to contributing to re-connecting producers and consumers but also to bringing together producers of short value chains and bundling their produce to enable them to supply consistent volumes of differentiated food products for consumers (Central Greece MAP).

The importance of building trust and establishing trusting relationships also extends to public authorities. MAPs highlighted the challenges of overcoming a lack of trust by public authorities in relation to activities on project implementation by rural communities and LAGs (e.g. Lituania MAP). Other MAPs (e.g. Tuscany Italy MAPs) reported many farmers and other value chain actors feel abandoned by the public sector. Further policy related challenges are the bureaucracy of policy support and financial barriers, especially for small farms, e.g. the need for beneficiaries to make the expenses in advance, access to markets, the amount of time needed for the application and writing projects (Tuscany Italy MAPs, Rural Transylvania Romania MAP). Key policy needs identified that will increase the level of trust in rural communities are simplified regulations, reduced bureaucracy with streamlined administrative procedures for accessing funds, longer-term funding, and provision of guidance (e.g. Lituania MAP, Tuscany Italy MAP, Nienburg Germany MAP, Zielone Sasieztwo Poland MAP).

4.1.3 Verifying and communicating sustainability

To ensure supply chain actors are implementing practices with environmentally and socially beneficial outcomes in sustainable value chains, agreed-upon standards within value chains are of vital importance. Such standards are utilised to establish minimum thresholds of quality, sustainability or some other attribute related to either the production process or the final product. Certifications or labels are systems in which value chain actors are held accountable to these agreed-upon standards. Importantly, certifications and labels can be used as a means of communicating with consumers the quality associated with the product. Indeed, several MAPs noted the need to establish adequate standards and labelling schemes within supply chains (Rural Prosperity Hungary; Tuscany Italy MAP; Casentino Italy MAP; Montagna Toscana Italy MAP; Zielone Sasieztwo Poland MAP; Rural Transylvania Romania MAP; Iasi Romania MAP).

However, the MAPs expressed various challenges in utilising such formal means to communicate sustainability with consumers. The Nienburg Germany MAP emphasised the challenge of defining meaningful sustainability criteria for a label for new sustainable value chain initiatives that reflect sustainable practices at farm and value chain levels and at the same time are easily recognised and understood by consumers. For some of the Eastern European MAPs, there is a lack of consumer awareness of the importance of labels or geographical indicators (Rural Prosperity Hungary; Rural Transylvania Romania MAP), namely due to distrust or low degrees of confidence. Although trust in EU quality schemes is higher than other quality schemes at the national or sub-national level, there is a high degree of confusion about what they are intending to communicate (Rural Prosperity Hungary; Rural Transylvania Romania MAP). Most consumers do not seek out products with labels or pay attention to them on product packaging (Rural Prosperity Hungary), and are therefore reluctant to pay extra for certified goods (Rural Transylvania Romania MAP).

In addition to consumer reluctance to purchase such goods, there is reluctance among producers to participate in such certification schemes (Rural Transylvania Romania MAP; Iasi Romania MAP; Tuscany Italy MAP; Casentino Italy MAP; Montagna Toscana Italy MAP). In the Rural Transylvania Romania MAP, this reluctance to participate particularly in EU level schemes is related to the significant costs associated with participation, whereas national schemes tend to be less of a bureaucratic and financial burden for participation. In addition, with consumer reluctance to purchase such goods, Romanian producers are wary of the potential benefits (Rural Transylvania Romania MAP; Iasi Romania MAP). While consumers in Western European countries have greater awareness of such schemes, particularly in Italy and France, producers in these countries may also be reluctant to participate in formal labelling or certification schemes, as the standards required do not necessarily reflect the production processes utilised by producers (Tuscany Italy MAP; Casentino Italy MAP; Montagna Toscana Italy MAP). It can be difficult to apply formal standards to practices that are based on norms and knowledge of human capital, and in addition, formal schemes may be too restrictive for traditional practices to be utilised. This lack of flexibility in existing schemes may limit participation in such schemes if sustainable practices do not explicitly align with existing categories of certification.

4.2 Existing interventions and actions

A wide range of existing interventions and actions have been identified and discussed by the MAPs in the different countries. These include actions targeted at promoting and strengthening key drivers and elements of sustainable and resilient value chains, including: i) territorial level governance (e.g. Bio-districts in Italy, Territorial Food Projects in France), ii) cooperation of local producers (e.g. Farm Network in Zala, Hungary), iii) re-connecting producers and consumers (e.g. ROA- Roade on-line ardeleneşti and ROMO, Transilvania, Taste of Iaşi, Romania), iv) rural community initiatives (e.g. Community cooperatives, Tuscany, Vivasol, Lithuania), v) training and education (e.g. Educational Business Incubator, Poland, Education Project for Rural Housewives' Circles), and vi) infrastructure development (e.g. citizen shareholder companies, Germany).

A detailed list of interventions and examples of actions of local actors is provided in Annex 1. A short summary of public and policy interventions and the actions of local actors will be added after the EU MAP meeting and discussions.

4.3 Recommendations from the MAPs

The SHERPA MAPs who carried out the discussion on sustainable and resilient value chains in rural areas developed a set of recommendations which are meant to inform both future policy and research at local, national and European level. For a detailed account of MAPs' recommendations, refer to the MAP Position Papers available at the SHERPA website.

4.3.1. Recommendations for future rural policies

Recommendations by the MAPs for future rural policies focused on: facilitating education and training, increasing social capital and capacity for cooperation, providing financial support for rural areas, increasing resiliency, reducing bureaucratic burdens, communicating sustainability, and incorporating local contexts into policy designs.

In facilitating education and training, policies & measures to educate and train stakeholders should capture the actual needs of sustainable value chains (EL 3; PL 3). In formal education settings, a more active engagement in the training and information activities of the labour force via knowledge transfer from academia is needed (RO 1; RO 2). Modules for the development of marketing skills both in the curricula of agricultural schools and in training programs should be introduced (RO 3). Incentives should be provided for the continuous training and education of rural operators (e.g. businesses, public officials, teachers, healthcare operators, etc) (Italian MAPs). The network of agricultural education units should be expanded, and curricula should be adapted to farmers' real needs (RO 3). In addition to formal education, informal means of providing training and education should be considered as well; communication and cooperation between farmers should be facilitated so that good practices and lessons learnt can be shared (Italian MAPs). Agricultural cooperatives, for example, can be utilised to provide access to information and exchange of good practices, such as the creation of demonstration farms/plots (RO 1; RO 2).

To increase social capital and capacity for cooperation, long-term funding should be provided to support trust-building processes of collaborative approaches (Italian MAPs). In calls for funding and more in general, a culture of collaboration, rather than competition, between different municipalities or initiatives should be promoted or incentivised (Italian MAPs, DE 2). Funding should support the creation of local infrastructure for collection, storage, distribution and selling of products required for collaborative value chain initiatives (DE 2, RO 3). Vocational training should raise awareness on the benefits of cooperation (information, visits and exchange on good practices) (RO3).

In providing financial support for rural areas, policy support for agricultural producers should be provided on the basis of the number of workers employed and not the surface area, and more substantial aid should be provided for production practices that are environmentally friendly environment (FR 2). Funding criteria should also be made more flexible or, when there is no room for flexibility, measures should be developed to mitigate the potential exclusion of producers that cannot access resources needed to meet funding criteria (Italian MAPs; RO 3). In addition to funding, measures serving as a relief from heavy taxation could provide local actors with incentives to undertake entrepreneurial initiatives within the context of the local value chain (EL 2)

To increase the resiliency of rural producers, long-term funding should be provided to producers transitioning to practices that will increase resilience; currently, project-based funding is temporary and therefore does facilitate changes that go beyond short-term goals (Italian MAPs). Policies focused on increasing resilience should facilitate knowledge-intensive adaptation and innovation (HU 3). At EU level, research and development programmes should be developed to move towards resilient value chains (EL 3).

The MAPs also highlighted the need for policies to decrease bureaucratic burdens, particularly for local actors. Administrative procedures for accessing funds should be streamlined, and if this is not possible then guidance should be provided so that smaller municipalities can have access to similar competencies and human resources as their larger counterparts. Administrative procedures should also be adaptable to local contexts (Italian MAPs; RO 1, DE 2). Decreasing the level of bureaucracy will help to increase trust in local communities and leaders, as well as their ideas (LT). At the national level, policies should simplify regulations, bureaucracy, and the taxation system as well as offering legal stability (PL 3)

In communicating sustainability, the MAPs focused on the importance of polices to promote local products. To increase awareness of the importance of consuming local products, local labels that can be recognised by consumers should be created (RO 1). Promotional strategies should be implemented based on local specificity and on the cultural values associated to products with geographical indication (RO 1, DE 2). However, to inform consumers about the benefits of short value chains, policy measures should promote alternative value chains beyond the boundaries of a locality or geographic region (EL 2). Promotion to consumers should also target changes in the consumption patterns and information on alternatives products available (RO 1). Producers must communicate on the benefits (value added) generated by the implementation of quality schemes (RO 1).

The MAPs also recommended incorporating local contexts into policy designs (PL 3, DE 2, EL 2). Tools for implementing EU strategies should be adapted to the local needs and establishing multi-actor schemes and communication/collaboration channels bringing together various actors and entities (EL2). Multi-actor schemes can involve universities and research organisations, cooperatives and citizens (EL 2). Best practice examples and knowledge exchange from neighbouring communities and other countries can be used as a tool to get inspiring ideas for local community (PL 3, DE 2).

4.3.2 Recommendations for future research agendas

Recommendations by the MAPs for future research agendas can be differentiated between adjustments to funding requirements, improving research infrastructures (including data collection needs), prioritising future research themes and improving outreach and impact of research. A preliminary list of examples is provided below.

Funding requirements

- To facilitate and further incentivise setting up collaborative research projects (science, society, practice and policy) to foster the adoption of new technologies, and collaborative approaches in piloting new initiatives in alternative and sustainable value chains
- To increase the availability and allocation of funding for knowledge transfer activities within calls of research programmes

Research infrastructure

- To increase and improve data collection and availability to assess the effectiveness and impacts of governance instruments for sustainable food systems beyond rigid administrative boundaries
- To improve access to methods and tools used to measure the nutritional value of local products. Access to such tools and methods would be a comparative advantage strengthening the brand development strategy of the region.

Research themes

Research on nutraceutical value and organoleptic characteristics of traditional products to improve the knowledge on local varieties to support producers and value chain actors in the assessment of the quality of their produce and to increase their credibility.

- To improve the understanding of the presence, influence and interaction of structural, economic, regulatory, cultural and other relevant factors that hinder or facilitate the emergence of producer empowerment in traditional value chains.
- To improve the understanding of the need, role, and impact of rural innovators (creative personnel/motivator, consultant/mentor) to enhance participation, planning, and implementation in regional development
- To analyse and identify efficient mechanisms for promoting local products (both to final consumer and to local producers) to increase awareness of the challenges, opportunities and benefits of local value chains
- To assess the potential of smart solutions and digital technologies, at producer, distributor, consumer and institutional levels, for their use in, and contribution to, resource and cost efficient, transparent and equitable food chains.
- To improve the understanding of the behaviour, motivations, values and preferences of rural and urban actors and communities in food systems to strengthen cooperation, responsibility and solidarity in just transitions to sustainable food systems.
- To improve the understanding of how to foster long-term processes of social innovations in agri-food value chains by learning from existing experiences, successes and failures, closely integrating the needs and voices of the local actors
- To further improve the understanding how principles and processes of sustainable and resilient value chains can be scaled up to global food systems.

- To improve the understanding of the roles and impacts of crises and uncertainty as barriers and / or accelerator for the development of resilient and sustainable value chains and rural communities.
- To improve the understanding and to raise awareness how resilient and sustainable value chains can contribute to addressing climate change challenges, and to fostering climate positive farming.
- Research into strategies for breeding resistant varieties, biological crop protection and animal health and immune system stimulation.

Outreach and impact

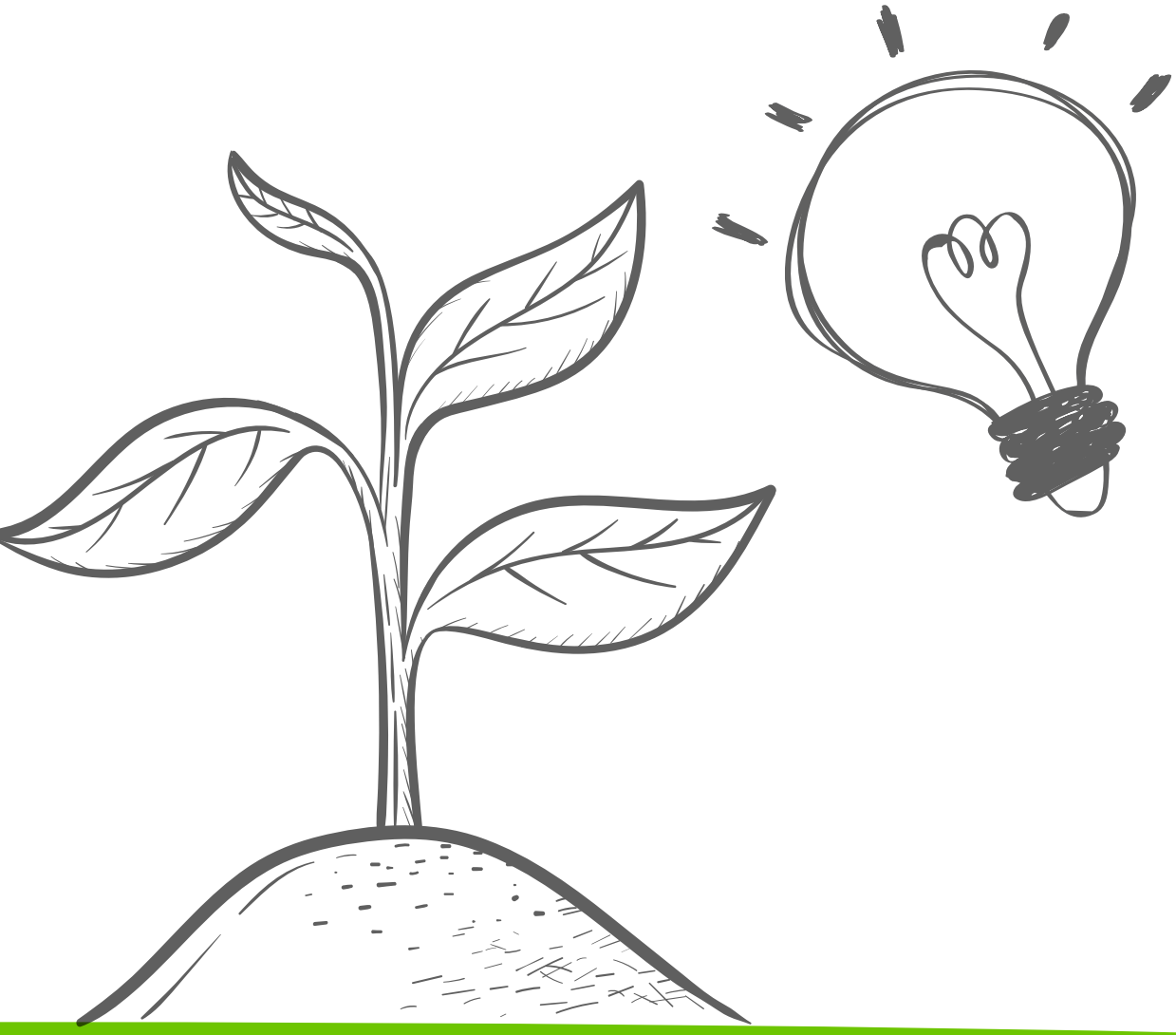
- To engage with and strengthen research and innovation partnerships for the exchange and transfer of innovations, development and access of infrastructure for experimentation and the continuity of research and innovation actions beyond a single project cycle.
- To engage with and strengthen training and consultancy for the acquisition of knowledge and skills, awareness-raising, and exchange of experience and good practices to create further added value and impact of research and innovation actions, closely cooperating with EIP-Agri and its operational groups.
- To structure and transfer information and knowledge to actors in the agri-food chain in simple and accessible language. Research organisations such as universities can play a central role in knowledge transfer utilising current Horizon Europe calls on advisory networks and on short food supply chains.
- To support policymakers in further developing AKIS plans under the new CAP and developing data on the needs and costs of service provision in rural areas, with particular attention to specific criteria for access to basic services in rural areas and, beyond performance criteria, to promote progress on the development and operationalisation of a right-based approach to basic access to services to ensure no one is left behind.

The research recommendations reflect the local needs and perspectives of the MAPs. Some of the research themes recommended by the MAPs are related to different research and innovation actions in the Horizon 2020 and Horizon Europe programmes. Examples include the **calls SFS-33-2016 Understanding food value chain and network dynamics and SFS-34-2017 Innovative agri-food chains: unlocking the potential for competitiveness and sustainability** that aimed to develop practical solutions and tools for collaborative short food supply chains that enhance the resilience and sustainability of farming and food systems.

In addition, further Horizon 2020 projects are currently on-going that aim to identify and disseminate good practices for mutually beneficial cooperation, integrating the needs of primary producers and consumers in a hands-on approach, paying particularly attention to aspects such as regaining consumers' trust by shortening chains, incentives for grassroots' initiatives like local food communities, agri-food clusters or food policy councils, the role of communities of practice and the showcasing of concrete examples of education and awareness raising activities. This, for example, includes projects funded under the call **RUR-05-2020 Connecting consumers and producers in innovative agri-food supply chains.**

Further insights on understanding how resilient and sustainable value chains can contribute to addressing climate change challenges can be expected from the projects funded under the call **HORIZON-CL6-2021-FARM2FORK-01-08: Uncovering lock-ins and levers to encourage farmers to move to and stay in sustainable, climate-neutral and biodiversity-friendly farming systems: from experiments to systemic mechanisms.**

The recommendations by the MAPs of future research themes that are covered by recently finished or on-going research and innovation actions in Horizon 2020 and Horizon Europe also reflect the time it takes for projects to achieve impact on the ground, emphasising the importance of developing credible pathways to impacts targeted at food systems actors across scales and levels.



5. Contribution from the SHERPA EU MAP

The EU-level MAP met in January 2023 to discuss the topic of sustainable and resilient value chains, informed by the results of the Position Papers of the SHERPA national and regional MAPs. During the meeting, members of the EU-level MAP reflected on the recommendations developed by the MAPs and how rural policies related to the topic of sustainable and resilient value chains can be supported at the EU level, and the research gaps and needs to be addressed by EU programming. The reflections of the meeting are summarised below.

Ensuring sustainability in value chains

Value chains and consumer behaviour have been greatly impacted upon by the outcome of recent and current crises (Covid-19, Ukraine War), and the rise in prices and high inflation. Transitioning to sustainability is a critical cross-cutting theme in strategies to tackling these impacts and needs to be embedded within all steps of value chains. Creating awareness on what and how transitions to sustainability can be achieved, and what it looks like, is essential for all the parties involved, i.e., consumers, producers, and regulators. Sharing information on the sustainability of products in a clear and concise manner by credible and authoritative bodies or labels, offers the prospect of increasing trust between consumers and producers. In turn, this can be expected to help the promotion of socially responsible products and the phasing out of harmful practices.

Sustainability should be embedded within value chains by its inclusion in the development of all relevant future EU policies, and especially those which intersect rural areas. In so doing, the rural dimension and all its elements need to be given serious consideration such as the framework for sustainable food systems that the EU aims to adopt by the autumn of 2023. Likewise, the EU School Scheme, with its objective to increase children's consumption of fruits and vegetables and create healthy eating habits for future generations, is currently under revision. This is an example of an instrument through which sustainability of the value chains should be a key consideration, in turn influencing transitions to shorter supply chains with increases in the number and range of products consumed locally to their sources of origin. EU legislation on geographical indications will be reviewed, providing an opportunity for the inclusion of voluntary sustainability criteria. Financial support should be provided for the inclusion of sustainability in value chains, such as funding quality schemes, where grants or other forms of funding can support and help to increase awareness and the uptake of local products.

Enhancing skills and knowledge for sustainability in value chains

Various areas of EU legislation and several EU projects focus on resilience and sustainability of value chains, and building the skills needed to realise this by supporting education, training, and knowledge development. Examples are the Horizon Europe project NextFood, which focuses on developing innovative science and education for sustainable agriculture, and the Horizon project Strength2Food, which informs policy-making on sustainable food chains. EIP-AGRI also provides opportunities for education and training: implementation needs to be well-tailored to the diversity of farmers and can be achieved by co-creating the knowledge and innovative solutions with farmers themselves.

Another action focused on developing the necessary skills and knowledge to embed sustainability in value chains is The EU Pact for Skills. One of its concrete forms of implementation is the creation of a skills partnership in agri-food ecosystems in 2022, with the goal to upskill and reskill people in the agri-food sector[1]. Among the commitments outlined by this partnership, there are the development of partnerships between education and training organisations, innovation actors and businesses, as well as setting up an EU-wide framework for skills and job profiles.

LEADER/CLLD provides a valuable way by which the necessary skills and knowledge can be developed to embed sustainability in all steps of value chains. For example, all projects and programmes that support local collaboration and participation can contribute to the cooperation measure. This underlines the need to keep facilitating support and funding for multi-actor participatory projects, such as LEADER/CLLD, Living Labs, and Multi-Actor Platforms, via Horizon Europe and other measures that can enhance the long-term benefits of established collaboration and knowledge transfer.

Suggestions for future research at EU level

Greater evidence is required on the effectiveness and impacts of governance instruments for sustainable value chains beyond the implications within administrative areas (i.e. rural/territorial approaches), with a focus on rural areas. There is an opportunity to linking actors at local levels throughout the value chain, such as by connecting Local Action Groups (LAG)s with local value chains. Research should be closely aligned to the development of new capacities and/or technologies in regard to the provision of local food and insights to prospective changes in future, nutritious, human diets.

New knowledge is needed on consumer preferences and their interactions with global agri-food markets and trends, and in-turn how farmers and other actors in food value chains adapt to emerging trends. Related research should focus on how to ensure that the principle of equitability can apply throughout value chains, including understanding how costs and returns can be fairly distributed amongst all actors in the value chain.

Research and innovation partnerships for the creation of innovations, development, and experimentation need to go beyond a single project cycle. Established networks and collaborations should persist and be implemented over longer period of times in order to create long-lasting impact and benefits.

[1] https://ec.europa.eu/social/main.jsp?langId=en&catId=1517&furtherNews=yes&newsId=10171

6. Concluding remarks

This Position Paper draws from the specific contributions from the Position Papers of 15 MAPs, which dedicated the third MAP cycle to reflect upon the transition towards sustainable and resilient value chains in rural areas. The 15 MAPs highlighted a range of national, regional, and local policies and bottom-up initiatives demonstrating the cross-cutting aspects of sustainable value chains across EU Member States and across various levels of governance. The MAPs assessed the needs and challenges within their areas, the current policy interventions and actions implemented, and formulated policy recommendations and potential research agendas relevant to sustainable and resilient value chains.

The present paper noted opportunities for increasing market power and resilience of rural producers through participation in alternative supply chains, education and training opportunities, and better horizontal and vertical coordination. However, many MAPs noted the lack horizontal coordination within their areas (particularly within the Eastern European MAPs), and limited opportunities for vertical integration for small and medium sized farms. MAPs also noted a lack of resilience to withstand exogenous impacts, particularly those that have increased production costs. In particular, income stability is increasingly difficult to ensure. The MAPs, including the EU-level MAP, concur that future rural policies should provide the long-term financial support for rural areas that is needed to facilitate more collaborative approaches in piloting new initiatives in sustainable value chains, while decreasing bureaucratic burdens and assisting with communicative and promotional strategies. The discussions of the MAPs emphasised the role of future policy to support a culture of cooperation and collaborative approaches in sustainable and resilient value chains. This requires long-term policy support for trust-building processes (especially between the consumer and producers as noted by the EU-level MAP), and capacity building for cooperation and for producers transitioning to practices that will increase resilience. There is a need for partnerships of policy, science, and society actors at levels of governance relevant to locally significant farming and food systems strengthening the local contexts into policy designs.

The MAPs concur that more transdisciplinary research is needed on key factors and processes of setting up, sustaining and upscaling initiatives of sustainable and resilient value chains. The Strategic Research and Innovation Agendas (SRIAs) of the forthcoming Horizon Europe Partnerships on Agroecology (SCAR-Agroecology, 2023) and Sustainable Food System (SCAR FS, 2023) recognise these research needs and offer the prospect to further improve the understanding of how to strengthen the engagement and cooperation of rural and urban actors and communities in value chains that accelerate transitions to sustainable farming and food systems.

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Annex 1

A list of interventions and actions

BULGARIA MAP

Policy/public interventions

- **National Science Programme "Intelligent Animal Husbandry,** aims to conduct fundamental and applied scientific research to provide the animal breeding sector with innovative methods and means for intelligent and efficient animal breeding with reduced human resources and reduced impact on the environment.

- **National Science Programme Healthy foods for a strong bioeconomy and quality of life,** aims to provide the necessary conditions for carrying out scientific research, scientific-applied and demonstration activities in the priority areas falling within the priority area of "Industry for healthy life and bio-technologies".

Examples of initiatives by local actors

- **BIObec,** prepares creation of bio-based education centres to meet industry needs; The project will clarify needs of different regional ecosystems and provide detailed assessments, management plans for training centers and lifelong learning programs.

- **BE-Rural,** will create potential for local economies based on natural resources and support implementation of bioeconomy strategies, plans and business models.

- **BIOSTEP,** raises general awareness and understanding of the bioeconomy, its implications and the benefits of informing and engaging citizens. The Horizon 2020 project Brings together stakeholders and policymakers to discuss steps needed for a comprehensive strategy to integrate bioeconomy into policymaking across many sectors.

- **DeCarb,** exchanges experience and transfers good practices on how to make the transition from a high carbon intensive economy to the future of clean energy.

NIENBURG LOWER SAXONY MAP, GERMANY

Policy/public interventions

- **The Lower Saxony Path (Der Niedersächsische Weg)**, is a new agreement by the ministries, the agricultural sector and nature conservation associations to enhance biodiversity and water quality. In addition, to collaborative efforts to support sustainable farming practices, this agreement also includes campaigns to curb food waste and strengthen food appreciation.

- **CAP Strategic Plan**, which includes various measures relevant for supporting sustainable value chains including opportunities to provide targeted support for knowledge networks that can be taken up according to Article 77 (cooperation) and Article 78 (knowledge exchange and information) and interventions on investments in tangible assets in processing and marketing enterprises, investments in integrated rural development and investments in the creation and development of non-agricultural activities on farms (support for farm diversification) (articles 73 and 74).

Examples of initiatives by local actors

- **Regionalwert AG Bremen and Weser-Ems,** the organisation Regionalwert AG Bremen and Weser-Ems collects money from citizens through shares, and invests in organic farming, supports the move from conventional farming to organic farming, and creates infrastructures for collaborative value chains (e.g. mobile slaughterhouses, warehouses).

- **Network for Solidarity Farming**, the network is an association of people with a background in farming and consumers who are committed to the spread of Solidarity Farming. It sees itself as a movement, grassroots organisation and association in equal measure. The networks offers contact and advice opportunities as well as regional and international networking on the topic of Solidarity Farming.

- **Raiffeisen-Warengenossenschaft Niedersachsen Mitte eG**, aims to increase of the generation of value added of sustainable farming practices within the region. The producer organisation provides contract farming to its members with defined quality criteria and bundles production volumes of individual farmers for marketing. The association offers their members advice and consultation.

- The **RegioApp** provides an overview of local producers and regional products. It was originally developed for regions in Franconia and Bavaria in 2013, but has been continuously expanded since then. It has recently also been launched for the district Nienburg, with the Klimaschutzagentur Mittelweser being the license holder for the RegioApp in this district. The RegioApp connects enables a local search for regional food and regional food anytime and anywhere. Farm shops and other direct marketing enterprises as well as restaurants are displayed. In addition, village shops, food retailers with regional products, weekly markets and other points of sale are displayed. For producers or direct marketers or operators of a farm shop, this app is a practical guide in the search for regional products.

- **Direct marketing initiatives**, several direct marketing initiatives exist in the county Nienburg that were initiated and are run by individual farmers.

PAYS PYRÉNÉES-MÉDITERRANÉE, FRANCE

Examples of initiatives by local actors

- **Territorial food projects (TFPs),** aim to relocalise agriculture and food in the territories by supporting the setting up of farmers, short supply chains or local food products in canteens. Resulting from the Law on the Future of Agriculture, which has encouraged their development since 2014, they are drawn up collectively on the initiative of the actors in a territory (local authorities, agricultural and agri-food companies, craftsmen, citizens, etc.). On the basis of a census of projects and consultation with the territory's stakeholders, several thematic working groups called "poles" were set up, including: Agricultural Land and Water Management Unit, Agroecological Transition Cluster, Catering/Supply Chain/Retail, Integration workshops and community gardens, and Health and Food Education Unit.

SOUTH AEGEAN MAP, GREECE

Examples of initiatives by local actors

- **Aegean Cuisine**, an initiative developed by the Chamber of Commerce and Industry of the Dodecanese with the aim to build a large network of producers, processors, and restaurateurs for better promoting locally produced products, targeted. The initiative can run campaigns (e.g. participating to international exhibitions) to promote specific sectors (i.e., the wineries of 12 islands) or islands (e.g., in the island of Kos and its wineries).

CENTRAL GREECE MAP

Examples of initiatives by local actors

- "Products from the heart of Greece", is an initiative of the Agro-Food Partnership of the Region of Central Greece (https://agrifoodcentralgreece.gr/), dealing with certification of locally produced products. The main purpose of this initiative is the promotion and recognition of the region's products, as well as the certification of products from the region under the label: "Products from the heart of Greece".

- **"From farm gate to shelf"**, is an initiative to foster transitions of farming towards more sustainable practices. Either individual producers or producers being members of cooperatives can be certified for meeting specific standards (e.g., standards for organic agriculture and organic livestock, etc). This initiative has started gaining traction given the increasing interest of consumers in agri-food products produced by sustainable agricultural practices.

PELOPONNESE MAP

Examples of initiatives by local actors

Ideas for initiatives with the aim to promote regional products in the market, such as the "The basket of Peloponnese products" or the establishment of a non-government organization named "Agri-food partnership for region of Peloponnese" are currently explored.

RURAL PROSPERITY MAP, HUNGARY

Policy/public interventions

- **CAP Strategic Plan**, aims to improve the viability of farms through a reduction of costs per hectare and an investment support structure, and focuses on economic development of the food industry (increasing exports of Hungarian products), as well as a network of medium-sized food processors.
- **Legislation on unfair trading practices,** EU legislation harmonising the rules by introducing common standards and harmonising enforcement and prohibiting the use of commercial practices, which allow the trader to abuse unequal bargaining power and economic power between the two parties.
- **Geographical Indication Program (Földrajzi Árujelzők Programme)**, aims to increase the number of protected geographical indications and to better exploit the potential of existing geographical indications.
- **No Leftovers program (Maradék nélkül' Programme)**, aims to reduce domestic food waste by changing consumer attitudes and behavioural patterns, to increase the level of knowledge and awareness of primary school children on food waste, to showcase good practices on food waste prevention and develop a guide for the relevant actors in the food chain, and to establish cooperation links with other EU Member States to facilitate the international implementation of the project elements.

Examples of initiatives by local actors

- Southern Plain Gardeners' Cooperative, is the largest producer organisation of vegetable growers based on the principles of localisation, environmental protection and high quality. 97% of the members produce under integrated biological control, who receive expert advice at every stage of production.

- National Association of Interest Representations for Small-scale producers and service providers, aims to encourage uptake of environmentally friendly forms of farming on a scale adapted to the characteristics of the landscape, of local processing and marketing systems and short supply chains related to these, of the development of a knowledge base on legal issues and promoting market access for local producers and service providers.

- Open Farm Network in Zala Thermal Valley (Nyitott Porták – Zala Völgye), aims tobuild trust-based cooperation in production, processing and marketing quality local products, to change attitudes, to encourage a healthy lifestyle, to showcase the beauty and uniqueness of the Zala landscape, to preservate local values and traditions, to preserve and build on existing diversity, and to incorporate innovation to increase attractiveness but preserve core values.

- Rural Quality Trademark System (Vidék Minősége Védjegyrendszer), aims toprovide expert service to encourage social cooperation and community thinking to develop production, processing and marketing; to raise consumer awareness of the importance of buying local products.

- Lidl 'Hazánk Kincsei' brand, is an example of the retailing of quality local products and domestic brands, a prominent initiative is the Lidl discount supermarket chain's 'Hazánk Kincsei' (treasues of our homeland) product line. The Hazánk Kincsei products are all from Hungarian suppliers, with trademarks of Hungarian materials, production and provenance.

Tuscany MAPs, Italy

Policy / public interventions

- **Rural districts (distretti rurali)**, integrates agriculture and other local activities, whereby the production of specific goods (food, crafts, ...), a homogeneous territorial dimension (not necessarily corresponding to administrative units), and a shared historical identity are all components of a pool of tangible and intangible endogenous resources needed for triggering rural development processes.

- **Bio-districts (distretti biologici)**, are defined as territories with a marked agricultural orientation, and where the local food production system displays the following characteristics: (1) the cultivation, rearing, processing, preparation and marketing of organically produced agricultural products; (2) the protection of typical local production and methods of cultivation, rearing, processing, and the integration of agriculture with other activities; (3) the attention to the territorial identity and landscape characteristics of the places; (4) criteria of environmental sustainability, the conservation and improvement of agricultural land, and the protection of agrobiodiversity (authors' own translation).

- **Communities for food and agro-biodiversity (Comunità del cibo e dell'agrobiodiversità)**, are defined as "agreements among local farmers, seed savers/custodian farmers, solidarity purchasing groups (GAS), schools, universities, research centres, organisations for agro-biodiversity conservation, school canteens, hospitals, catering industries, restaurants, retailers, food processing SMEs, and public bodies". Food Communities aim to promote studies on agro-biodiversity and to raise awareness on the role that agro-biodiversity might play as a pivotal element of traditional local culture.

- **The Intermunicipal Food Policy of the 'Piana del cibo',** is a governance arrangement through which five municipalities in the province of Lucca reach out beyond their administrative and functional boundaries to share decision-making powers on food (Arcuri et al., 2022).

Examples of initiatives by local actors

- **Wine and taste routes (Strade del vino e dei sapori),** are thematic itineraries unfolding in territories with a high wine vocation, later developed to include other quality products.

- **Community cooperatives (Cooperative di comunità),** are a model for social innovation in which local communities organise themselves to both provide for, and take advantage of, services and goods, through synergies, co-learning and cohesion among the actors involved. They bring together individual citizens, local NGOs and associations, firms and institutions to address local challenges and solving collective needs.

- The Bioeroi Association, aims to promote, give value and protect, in a sustainable way, the mountain area in which they live and work. To do so, they created a network of stakeholders (among them also artists and artisans) and organised several cultural initiatives at local level. They also promoted an informal label for the chestnut flour. Through their social activity, they also supported the revitalisation of some mills in the area, taking advantage of small funding opportunities made available by the Municipalities' Union.

- The Slow Food Chestnut Community of Alta Versilia (MAP Montagna Toscana), involves 13 producers with the aim to promote the local chestnut flour production, give value and preserve the mountain landscape and raise awareness on this matter through cultural projects and events for schools and grown-ups.

Lithuania MAP

Policy / public interventions

- **Rural Development Programme 2022 to 2027,** 5 topics are selected by the Ministry of Agriculture of the Republic of Lithuania that are able encourage and increase the entrepreneurship and social economy of rural areas, just transition and sustainable & resilient value chains in Lithuania. These include projects for the local economy, the creation of inclusive local infrastructure and services, smart governance, smart rural communities, and environmental protection and climate change mitigation.

Examples of initiatives by local actors

- Association "Viva Sol", a new form of rural entrepreneurship via a diversified rural economy.
- "Village to Home", project for the two-sided short food supply chain platform.
- **Stories from Pociūnėliai. Rural goods from Pociūnėliai (Pociūnėlių istorijos. Kaimiškos gėrybės iš Pociūnėlių),** an initiative on short supply chain: farmers had surplus production, so have started to produce candy, squeeze juices, dry fruits and herbs.
- Salon of Krakiai community (Krakių bendruomenės svetainė), is a community business aiming to offer a cozy attraction center in a small town for both locals and guests, for whom they can offer delicious food, drinks, full shelves of local products and rich culinary and cultural heritage educational programs.

ZIELONE SASIEZTWO MAP, POLAND

Policy/public interventions

- **CAP Strategic Plan,** supports for several cooperation initiatives (LEADER approach, investment measures, education and training).
- **National Recovery and Resilience Plan,** supports investments in processing and marketing/disposal of agriculture & food products through retail, direct sales etc. and investment in SMEs operating in the field.

Examples of initiatives by local actors

- Entrepreneurial woman in the European Union - new challenges and new opportunities – conference organized by Mazowiecki Farm Advisory Centre, aims to undertake initiatives for the development of rural areas by seeking alternative solutions leading to the launch of innovative processing activities, thereby improving the conditions and quality of life in the countryside, and its promotion as an attractive place to live and develop professionally.
- Educational Business Incubator in Zdziwój Nowy and Zdziwój Stary, as a way to revitalise areas displaced by the German occupiers during World War II. The county of Przasnysz has built an Educational Business Incubator on the site of a former primary school in Zdziwój Stary. It is a modern edifice designed to provide substantive support, organise training, conferences and activate local communities. It will be a place conducive to entrepreneurship and learning.
- Education Project for Rural Housewives' Circles and Agricultural Entrepreneurship Creators, provides training free of charge for participants and is aimed at 200 people who are members of Rural Housewives' Circles. Eligibility is determined by age and order of application. Priority was given to those under 35 years of age.

RURAL TRANSYLVANIA MAP, ROMANIA

Policy/public interventions

- **MARD initiative**, to create national quality schemes, mainly traditional products and established Romanian recipes.

- **Research or consultancy projects**, funded from non-reimbursable public funds or private funds (at the request of private beneficiaries). This consultancy tends to respond to specific information needs, adapted to the requirement of the project call or to the specific requirement of the financer beneficiary of the research.

Examples of initiatives by local actors

- **LIFE "TransilvaniaCooperation" project**, proposes an approach to cooperation between local actors to jointly assume the sustainable management practices of Natura 2000 meadows in two rural micro zones (Valea Angofa/Commune Apold, Valea Viscri/Commune Bunesti). The project aims to improve the effectiveness of agro-environmental measures to stop the loss of species and habitats of European importance.

- **ROA- Roade on-line ardelenești and ROMO – From Producer Directly to Consumer**, are private initiatives of agri-food producers from Transylvania, established on the basis of the Swedish model REKO «Rejäl Konsumtion» («responsible consumption» – a.n.). They represent a form of direct sale, based on pre-order, placed on Facebook platforms. Members are agri-food producers (about 30/platform) and final consumers (about 20000 in each platform). The interactions between producers and consumers are on direct basis, of brunch type on farms and weekly order deliveries. (Link 2)

- **AgroTransilvania Cluster**, aims to support the increase in the competitiveness of association, as well as of each individual member, both on the national and international market, on the basis of a common development strategy. The cluster aims to involve its members in joint multi and trans-disciplinary activities, research, development, innovation activities, technological transfer, provision of services, production, increase of visibility.

IASI MAP, ROMANIA

Examples of initiatives by local actors

- **Gust de Iaşi, translated as Taste of Iaşi**, is a platform aiming to promote the local food producers from the peri-urban area of Iaşi city. It is also focused on raising the consumers' level of trust in short food supply chains and healthy food products as well. The platform engages knowledge transfer and public information and, at the same time, does not embrace a commercial approach.

- **Iaşi in Traditional, Organic, and Mountain Dishes (Iaşul în bucate tradiţionale, ecologice şi montane)**, organisation of fairs of producers from the North-East Development Region by Iaşi City Hall, Iaşi Branch of the Romanian Academy, and the Agriculture Directorate of Iaşi county. The event was part of the innovative hub known as Food for Iaşi Living Lab, developed within the Cities2030 project by Iaşi City Hall and the Romanian Academy, Iaşi Branch.

- **Come to Us (Hai la noi!)**, the association of local producers as in Produs în Iaşi (Made in Iaşi), founded in 2020, organises a series of events addressing the consumers from Iaşi municipality and are commonly held at the headquarters of the host producers.

- **Miller's Wife Grocery Store (Magazia Morăriţei)**, is firstly a bakery producer and secondly a grocery store that commercialises and promotes only Romanian certified food products in line with the principles of healthy food, tested products obtained in controlled environments, and with the purpose of inspiring trust to the consumer.

- **The Green Weekend Market (Piaţa verde de weekend)**, is organised by Iaşi City Hall, Romanian Academy - Iaşi Branch, Agriculture Directorate of Iaşi County, „Ion Ionescu de la Brad" University of Life Sciences from Iaşi, Association of the local producers (Produs în Iaşi, aka Made In Iaşi), and Gust de Iaşi (Taste of Iaşi).

ARGES MAP, ROMANIA

Policy/public interventions

- **Rural Development Programme and direct payment through the Common Agricultural Policy** or specific interventions of the Ministry of Agriculture, supported from the national budget

Examples of initiatives by local actors

- **Social economy enterprise "CREDO", Domneşti commune, Argeş county,** aims to increase the education level, especially the non-formal one, of the inhabitants of rural areas from Argeş county, but not only, by facilitating the access to professional training programs, decent jobs and financing for entrepreneurial initiatives.

- **Romanian fruits harvest days "Harvest yourself, pay less",** is an initiative of the Research and Development Institute for Pomiculture "Piteşti-Mărăcineni" whereby consumers are invited to visit the experimental plots of the institute and to harvest themselves the fruits that can be bought at a preferential price. The institute offers casseroles, protection equipment and qualified personnel for guidance.

- **Guide books for orchardists,** is an Initiative of the Research and Development Institute for Pomiculture "Piteşti-Mărăcineni" where through consultancy and technical assistance, advice for orchards setup services is offered. Guide books of good practices, with substantive technological advices, adapted to every fruit tree species and pedo-climatic conditions, including zonation of fruit trees for Argeş county, are available free of charge.

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