MOVING
MOUNTAIN VALORISATION THROUGH INTERCONNECTEDNESS AND GREEN GROWTH

D5.2 Policy Brief

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Acronyms

CLLD	Community-Led Local Development
EC	European Commission
ENoLL	European Network of Living Labs
GI	Geographical Indication
LAG	Local Action Group
NSIA	National Strategy for Inner Areas
OQT	Optional Quality Term
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
PGS	Participatory Guarantee Systems
VC	Value Chain

Executive summary

This deliverable gather the 5 Policy Briefs elaborated for each of the 5 Clusters of VCs established in WP5:

- Cluster S: Social and Demographic aspects
- Cluster V: Value and Quality products
- Cluster I: Innovation and Infrastructures
- Cluster N: Nature and Ecosystem Services
- Cluster G: Governance, Cooperation and Territoriality

Every documents stand as an individual one.

Policy Brief Cluster "S" · Social and Demographic Aspects

Introduction

MOVING is a 4-years Horizon 2020 funded project whose main objective is to build capacities and co-develop relevant policy frameworks across Europe for the establishment of new or upgraded/upscaled value chains that contribute to the resilience and sustainability of mountain areas, using a bottom-up participatory process that engages value chain actors, stakeholders, and policymakers. The project is developed in 23 European mountain regions. Some additional objectives are:

- Establish a European-wide Community of Practice (CoP) on Mountain Value Chains, including actors from the Agricultural Knowledge and Innovation System (AKIS), value chain and policy-making stakeholders and society.
- Develop a conceptual and analytical framework based on the understanding of mountains as Social-Ecological Systems, describing and interpreting the diversity of mountain value chains, and assessing their contribution to the sustainability and resilience of mountain areas and population.
- Provide visual tools to raise awareness of the Agricultural Knowledge and Innovation System (AKIS), value chains actors, civil society, and policymakers on the diversity of land use and production systems of mountain areas, the threats they face, the bio-physical assets they can mobilise, their sustainability, and their resilience to climate change.
- Study the configurations, strategies, dynamics, and value distribution of different value chains in the main European mountainous areas to assess their contribution to sustainability and resilience.
- Develop in-depth, participatory, critical benchmarking of clusters of mountain value chains to identify enablers and blocking factors affecting the sustainability and resilience.
- Carry out foresight exercises to capture and anticipate the long-term trends affecting mountain areas, co-constructing shared visions and strategies for a balanced mix of public and private goods.
- Elaborate an evidence-based and performance-focused policy roadmap and policy design toolkit for the next generation of policy interventions to enhance the connectivity, sustainability, and resilience of mountain regions.

During the project development, an in-depth analysis of a value chain in each mountain area was conducted to determine its contribution to sustainability and resilience. Subsequently, the 23 value chains were categorised into five distinct clusters for cross-comparison and benchmarking. Each cluster aimed at addressing a specific challenge: Social and Demographic aspects (S), Innovation and infrastructures (I), Governance, Territoriality and cooperation (G), Nature and ecosystem services (N), and Value and quality products (V). To facilitate the analysis, seven common objectives were established (see Fig. 1), and various participatory activities were carried out. These included a cluster workshop involving stakeholders from all value chains within the cluster and a questionnaire answered by experts from each value chain. This Policy Brief serves as a synthesis overview of the results obtained in Cluster S (Social and Demographic aspects).

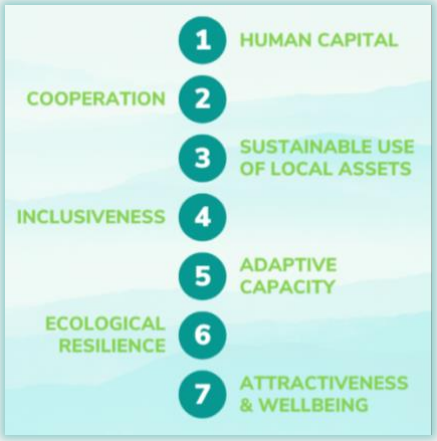

Figure 1 The 7 common objectives of MOVING

1. Synthesis of Cluster S in mountain areas of Europe.

Cluster S deals with the social and demographic aspects of the analysed value chains (VC) in their relationship with the selected respective mountain areas. Among the objectives identified in MOVING, Cooperation and Inclusiveness are key for this Cluster, which also deals with issues related to employment, networking, social capital, attractiveness, and wellbeing. The relation between the selected VCs and the two key objectives has been described by ad hoc indicators, accounting for the number and types of networks the VCs established or joined at the territorial level, and for the degree of inclusiveness of specific social groups (women, youngsters, people from outside the area).

The assumption behind the analysis is that mountain VCs have the potential to actively contribute to the networking among actors at the territorial level, enhancing mutual trust, knowledge exchanges and collaboration, and establishing extra-local linkages, connecting the territory with other areas. Besides, the VCs can be assessed in terms of their capability to be inclusive, offering opportunities for employment to sensitive groups, including newcomers and migrants, and more generally enhancing individual and communities' wellbeing. These elements can contribute to enhancing the social sustainability and the resilience of mountain areas, and for this reason, their analysis in relation to the existence and functioning of mountain VCs takes on great importance.

The analysis has been mainly based on a set of case studies:

N°	Mountain	Value Chain	Country
01	Austrian Alps	Lamb from the Weiz region	Austria
04	Corsica	Chestnut Flour	France
06	Crete	Central Rethymno Carob	Greece
07	Transdanubian Mountains	Agroecological Knowledge	Hungary
10	Northern Apennines	Chestnut Flour	Italy
12	Cordilheira Central	Serra da Estrela PDO Cheese	Portugal

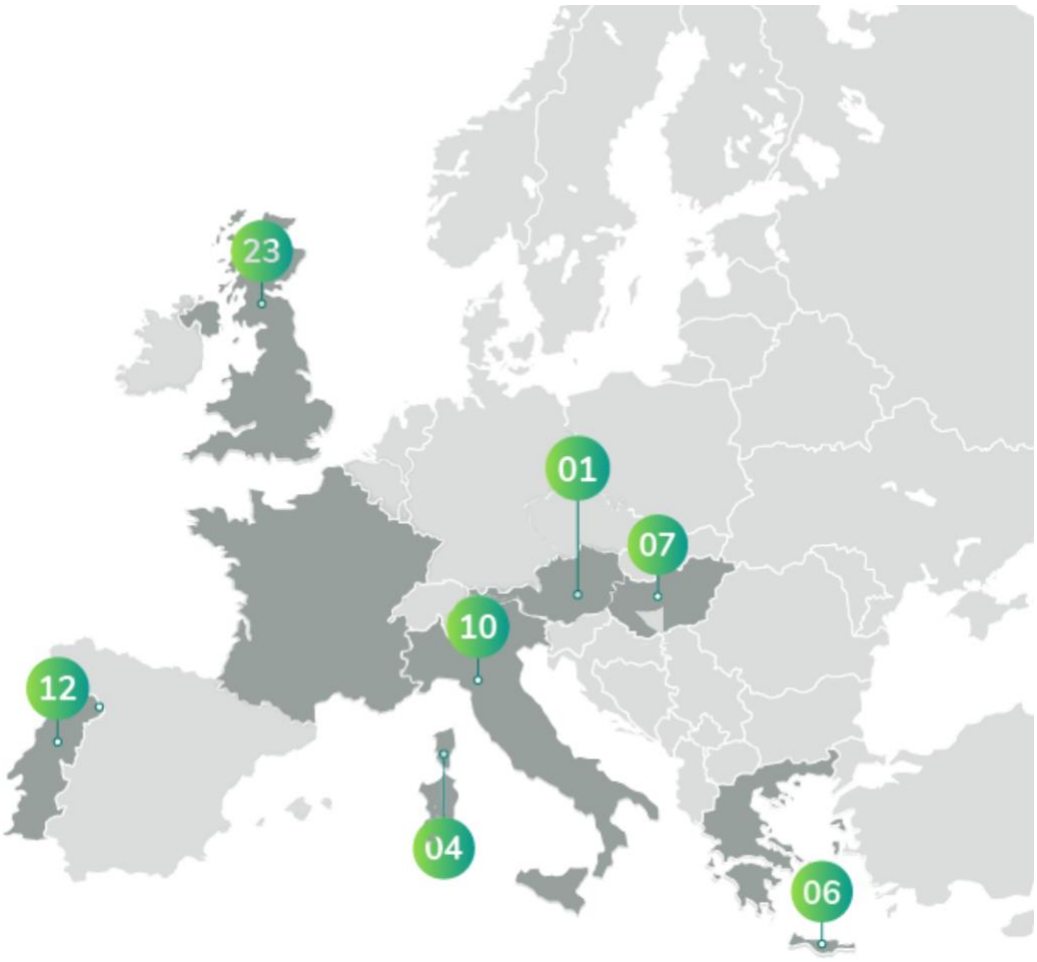

Figure 2 Reference regions that are part of the Social and demographic change cluster: Austrian Alps (01), Corsica (04), Crete (06), Transdanubian Mountains (07), Northern Apennines (09), Cordiheira Central (12) and Highlands and Islands (23) regions. Source: MOVING 2020.

However, additional elements were considered in relation to other VCs, harvested from MOVING reports and from the debate for the in-depth cluster analysis at the Clusters Workshop.

The overall outcomes of the analysis (a more detailed description is in Deliverable 5.1) can be summarised as follows. In general terms, the different selected VCs reveal a good number and variety of networks with other actors, from business partners along the chain to community organisations, as well as local authorities and research centres. They both join existing networks and establish new ones, so contributing to craft the social fabric at the territorial level, certainly an important public good to consider. Inclusiveness, in the sense described above, varies between different areas and from one VC to another, without clear emerging patterns, reporting a fair presence of women and (in some chains) youngsters and with a tendency towards low engagement of migrants, newcomers, and non-local people. Some challenges and trade-offs have been identified for the analysed VCs with respect to cluster-specific and economic performances.

Indeed, the analysis carried out on the project's outcomes, validated and integrated by the debate at the in-depth analysis at the Cluster Workshop, led to the identification of a short list of key challenges that mountain VCs are facing in order to fully display their potential in regard to the key dimensions of the Cluster (collaboration/networking and inclusiveness), while also considering related issues like social capital, attractiveness wellbeing of local communities.

The following list of challenges results from a re-organisation of the outcomes of the debate held at Cluster Workshop (more details on the direct outcomes are in Deliverable 5.1):

a. Low cooperation, whereas networks are often based on personal relations rather than collective endeavours.
b. Moderate attention for inclusiveness of women, youngster, newcomers, and migrants.
c. Presence of trade-offs between social and economic performances of VCs.
d. Depopulation with subsequent loss of skilled labour force and human capital.

However, according to the outcomes of the analysis, the last challenge can be seen as the outcome of a complex range of factors, including the three listed above. Low cooperation, limited attention for inclusiveness and trade-offs hampering the full display of VCs' social potential are issues that contribute to the loss of young workers and skilled workforce and were identified as key elements at the Cluster Workshop. This is why the subsequent analysis and the consequent policy recommendations will address the first three challenges.

The analysis also highlighted some suggested solutions to those challenges (without a precise bilateral correspondence with each of the challenges).

1. Promote a collaborative attitude among actors, within and beyond the VCs. This entails a change in individual and collective habits that could also be triggered by public support for bottom-up processes.
2. Advocate an active role for local innovation brokers.

3. Territorial actors (policymakers and local institutions) should be capable of listening to local communities, to identify socially agreed and territory-tailored solutions.
4. Personal leadership capacities (marked with low priority). This factor is very relevant in some contexts, but can hardly lead to a general recommendation, if not seen in terms of creation of a supportive environment through education, awareness, and openness.

2. Challenges addressed

Following what argued in the previous section, we describe here the three main challenges that emerged from the analysis.

2.1. Low cooperation

The indicators related to VCs' networking show that all the analysed experiences have a certain degree of collaboration or at least mutual influence with other actors. However, the in-depth discussion and the personal experiences collected witness that collaboration attitudes are sometimes weak and could be strengthened. Lack of time, different interests, mistrust, and personal habits rooted in the tradition of an area or of a sector can hamper the development of collaborative practices among actors. This is particularly relevant when small players (farmers, processors) are at stake, for whom stronger cooperation could help in overcoming the limits related to their small size.

It is worth underlying that the small size can be an obstacle to increasing cooperation as it limits the time available for networking, or at least the individual's perception of that time, and by the farms' multi-activity, which makes it difficult to identify common interests to cooperate for as farmers might have different business objectives. This issue has been mentioned, for example, in the Corsican case, where land fragmentation, with most farmers having only small pieces of land dedicated to chestnut production, pushes them to multi-activity farming, so hindering, in the words of the farmers, their motivation to engage into active cooperation.

An additional hindering factor is mistrust in cooperation due to negative past experiences (for example, blamed for their perceived political bias, as in the Greek case). The tradition of individualist rather than cooperative habits, perceived as not unusual in mountain areas, has also been mentioned in the Austrian case. In other cases, as in the Northern Apennines, although identified as an important asset for the area, networking is deemed linked to "subjective" individual contacts and personal friendship rather than to the "objective" recognition of common interests like better matching product supply and demand or sharing resources to reduce costs. Still, in the Cretan experience, the role of particularly proactive individuals is regarded as the main determinant of collaborative linkages.

Therefore, it is key to identify those situations in which further collaboration among (especially) small players would be beneficial and the key obstacles to developing it, which can differ from area to area and from sector to sector.

2.2. Moderate attention for inclusiveness

In the selected VCs, no specific features witnessing special attention to inclusiveness have emerged, with few exceptions. Indeed, the percentages of women and youngsters vary from one VC to another, with not recognisable positive or negative patterns. An exception is the involvement of young people in the Hungarian case ("Transdanubian agroecological knowledge"), which is not surprising given the nature of the initiative, which focuses on practices such as permaculture and contour farming, courses in sustainable farming practices, and online sharing of environmental and community friendly technology. Additionally, for the Austrian sheep farming case, the indicators reveal quite high involvement of women and young groups.

However, it is worth underlying that indicators and participants to the Cluster S discussion at the Cluster Workshop confirm an important role for women in several VCs regarding the diversification activities, farm multifunctionality and social relations (as in the Austrian case), whereas the actual management is still more male-driven, in the Portuguese and French cases. Regarding migrants, newcomers, and non-local people, their presence in the analysed VCs is generally low or absent. s

In relation to young people, their interest in living and working in the area is low, and it seems to depend on context-specific factors, like the remoteness of the area, the difficult access to land, and the high workload (as in the French case). Conversely, the sense of identity offered by the VC, the commitment of the local cooperative in training and knowledge transfer (Austria), or the possibility of income integration (chestnut production in Northern Apennines) are key factors for the engagement of young generations in the VC and to increase the attractiveness of mountain areas.

An important element for reflection comes from the questionnaire outcomes. Respondents were asked to select the most important among three "social" issues relevant to the mountain VCs. "Human capital" and "Cooperation" received 17 and 13 votes, respectively, whereas "Inclusiveness" was never selected, maybe because it was perceived as a "not-core" aspect in the evaluation of VCs impact.

Thus, a challenge in this regard clearly emerged. The potential of mountain VCs to revitalise local communities and to enrich local networks, confirmed by the analysis, should also be extended to this important social and demographic issue. Gender disparities in the involvement of men and women in the VC activities can be influenced by traditional norms and broader societal limitations. This includes challenges such as the lack of social services in remote areas that support family responsibilities, often shouldered primarily by women in many mountain contexts. In this regard, the potential for inclusiveness of the VCs seems to be hampered by some general factors (like the absence of services and the perceived remoteness) rather than by the VCs' characteristics.

2.3. Trade-offs between social and economic performances of VCs

The analysis of the VCs, and more specifically, the discussion at Cluster Workshop, also highlighted some trade-offs between different objectives or performance of the chains. It is worth underlying that these trade-offs do not emerge if we focus only on Cluster S remit, but they do if we consider the relations between social and economic issues.

As described below, both the identified trade-offs relate to governance issues related to the business model pursued by VC actors and to the interplay with public intervention.

The first trade-off has been identified between VCs' profitability on the one side and "localness" (i.e. local control on and reliance on local resources) on the other.

Agri-food-centred networks can try to connect with other networks (e.g., tourism), offering opportunities for higher profitability but potentially unrespectful of the cultural specificities and the long-term sustainability of the chain. In the Cretan case, carob processors and traders are in areas outside the island, as it is not possible to perform this activity locally. In the Portuguese VC, the option to rely upon Spanish milk for cheese production can get into conflict with the PDO protocol, but also with supporting locally produced milk.

Another possible trade-off between profitability and provision of public goods has been mentioned in the Cretan case, regarding the choice between shifting to publicly supported production (e.g., olive oil but also reforestation in this specific case) and safeguarding minor traditional products (carobs) and the consequent effects on diversification of produce and practices.

In mountain areas marked by low profitability of farming and food production and general backwardness, the role of public subsidies can be key to preserve local productions and the survival of local communities and traditions in the area. At the same time, subsidies can distort business models and farming choices towards short-term public-supported productions instead of valorising the diversity of varieties, practices, or production models.

3. Policy recommendations

The next policy suggestions are linked to the identified challenges and looking at the suggested solutions as orientation for action. Following the identification of trade-offs and challenges, and possible ways of addressing them, some policy recommendations have been developed, at various institutional and geographical levels of design and implementation.

3.1. Low-cost measures inspired by Italian strategy for inner areas

In Italy, the work carried out for the "National strategy for inner areas" (NSIA)[1] identified several possible actions and policies at the local level likely to be implemented with low or almost no budget. The NSIA aims at limiting or reversing demographic decline and at overcoming geographical marginalisation, avoiding the risk that these processes lead to reduced access to services, triggering a vicious circle. Low-cost identified solutions were, for example, a re-organisation with better time alignment of the public transports; the preservation and valorisation of traditional farming practices and of the resulting landscape; the promotion of cooperatives under the "share community" approach for sharing and exchanging goods and services. These solutions could support further inclusiveness of women by reducing the time and efforts dedicated to those familiar duties that are women's responsibilities in many of the analysed mountain contexts. Similar considerations can be made regarding the wellbeing and attractiveness of mountain areas for young people who could be potentially interested in working in the VCs if adequate access to services is granted.

More interesting than the proposed solutions was the methodology proposed for the identification of the areas in need of support (based on the distance from the points of delivery of fundamental services) and the promotion of territorial networking as a condition to access the NSIA funding scheme. A similar approach could be followed in the design of policies that support mountain VCs in their capability to provide a range of ecosystem services and social benefits through their networking capacity and their potential for inclusiveness. In other words, public support to mountain VCs should be given not only in relation to their economic potential, but also looking at the contribution they can provide to the local delivery of a range of environmental, social, and cultural services. This is already happening in many contexts but could be mainstream and strengthened. Beyond three policy suggestions inspired by existing experiences at the national or European levels, two other reflections are presented.

3.2. Bottom-up approaches inspired by LEADER

The experience of the LEADER-CLLD programs, based on the activism of the Local Action Groups (LAGs) at the territorial level, is another example of strategies aimed at triggering a bottom-up approach to local development and a collaborative attitude of local players for the design of local development strategies. This experience could be seen as an entry point for other kind of supporting schemes and for promoting an enlarged networking around existing connection. In several inner and mountain contexts, LAGs proved to be a physical portal open on

[1] SNAI, described in https://www.agenziacoesione.gov.it/strategia-nazionale-aree-interne/?lang=en)

the territories, available for local communities and capable to trigger cohesion and collective action (ELARD 2019[2]).

A LEADER-like approach could be developed, more focused on the VCs and on their relation patterns, to overcome the difficult access to information and supporting services affecting several mountain areas. A dialogue among the various VCs rooted in a territory (also adding extra-local linkages) could be the starting point of a strategy for their valorisation and for enabling them to be inclusive and open to the various social groups and minorities.

3.3. "Living Lab" approach for the identification and adoption of locally tailored solutions

Actions for sharing and co-creation of knowledge and innovation among different actors are often cited as suggested solutions in a variety of policy recommendations and strategies. Indeed, increasing attention has been paid in recent times to social innovation, and more generally to the social and cultural components of any territorial development process including the identification and adoption of technological solutions.

A recent approach adopted in a variety of contexts is based on Living Labs. According to the European Network of Living Labs (ENoLL), Living Labs are real-life test and experimentation environments that foster co-creation and open innovation among actors belonging to the four components of the so-called "quadruple helix": citizens, governments, industry, and academia[3].

Within these environments, the various actors can work together in an open-space setting with a problem-oriented perspective and an active role of end-users who become co-developers of innovation tailored to local conditions. Looking at mountain VCs and the highlighted challenges, the living lab approach can foster the creation of collaborative environments, where different actors interact to address common challenges in a structured setting with the support of innovation brokers, whose role can thus be valorised. In living labs, farmers are encouraged to take an active role, they can establish new networks and evolve their practices. A living lab can also be a way to increase mutual trust and to open the community to extra-local experiences, also through international networks that link together living labs across regional and national borders.

3.4. Fine-tuning of public subsidies for specific productions

A more flexible approach to public subsidies for certain productions is needed to avoid pushing producers towards subsidised productions, with the subsequent risk of reducing agro-biodiversity and related cultural diversity. This has been for example argued by the Cretan stakeholders who

[2] ELARD (2019), *A Leader journey through rural Europe. National LAG networks revealing the diversity of LEADER Implementation. Retrieved on http://elard.eu/wp-content/uploads/2020/04/ELARD-Booklet-web.pdf*
[3] See https://enoll.org/about-us/

underlined the risk for displacement of carob production vis-à-vis subsidised products or land uses, including reforestation.

The bottom-up approaches mentioned regarding the NSIA and the LEADER programme are examples of governance practices that should be strengthened to enable local players to develop a shared strategic vision for the area and its VCs, possibly contributing to the definition of the policies, including the decisions regarding the subsidies schemes.

3.5. Mountain VCs in general and rural development strategies.

In a more general perspective, it can be noticed that in the key EC Communications on food chains and rural areas (to name some: the seminal EC 713/2017 “The future of food and farming”, the EC COM 381/2020 “From farm to Fork” or the EC COM 345/2012 “A long-term vision for rural areas”) mountain food chains and mountain areas are never (in the first two cases) or just occasionally (in the third one) mentioned. Moreover, and quite surprisingly, mountains are never mentioned also in the COM 572/2021 “New EU Forest Strategy for 2030”.

Even considering the obvious general coverage of these documents, this observation leads to the consideration that the specificities of the relations between VCs and territories in mountain regions should be addressed not only by specific ad hoc policies but also explicitly acknowledged in wide-ranging and strategic documents that shape the overall food and rural development policies of the EU. Bringing mountain specificities into the documents that shape the overall policy approach in the rural and agricultural remit would inspire an overall vision that is not biased towards lowlands and areas with less natural or economic constraints.

This is particularly true when mountain VCs are seen in their territorial embeddedness and looking at the social impacts they can have on local communities, and for those areas where the “mountain” characterisation goes hand in hand with their remoteness, as for example in the Cretan case. Besides, a more prominent presence of mountain issues in overall strategic documents could support an increased societal awareness of the specificity and importance of mountain areas, which can be considered as a further challenge for the future of mountain areas.

Expected impact on Cluster S objectives

The highlighted tools and approaches can have a significant impact on the key objectives identified in relation to the social and demographic impact of the mountain VCs, first collaboration and inclusiveness, and then wellbeing and attractiveness.

This impact can be better framed looking at it through the lenses of the three main potential solutions identified through the analysis: a more collaborative attitude among local actors, a strengthened role for local innovation brokers as facilitators of collective actions, the capability to identify socially agreed and territory-tailored solutions.

The three first policy recommendations address the key objectives by pursuing the suggested solutions, as they are aimed at promoting networking and at strengthening the social fabric at the territorial level. Policies supporting interaction and collaboration among actors, within and beyond VCs' borders are needed in mountain contexts where traditional habits and resource constraints are likely to preserve individualistic approaches. Besides, these initiatives can reshape VCs' borders themselves, suggesting or enabling new business models.

Further, inclusiveness towards women, young people, migrants, and newcomers can also be triggered by and within these collaborative initiatives (a community group designing public supporting strategies, a living lab promoted by local, national, or European authorities, etc.). The rules for engagement set up by the promoters/funders of the initiatives, as well as the personal approach and capabilities of brokers and facilitators, can play an active role in mountain areas.

Hinging on the increased recognition of the significance of sustainable community-driven and territorial systems, fine-tuned public intervention to support locally driven and traditional products and VCs can strengthen community ties, foster collaboration, and promote inclusivity in the chains with cascading effects on overall mountain areas. Through sustained investments and support in traditional VC's initiatives at the local level, public support can exploit the transformative potential of territorially embedded VCs, fostering resilient, interconnected, and inclusive communities and mountain areas. Similar outcomes can be achieved through the recognition in the policy debate of the specificities of mountain VCs and the territory they are embedded in.

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More information at **www.moving-h2020.eu**

Policy Brief Cluster "V" · Value and Quality Products

Introduction

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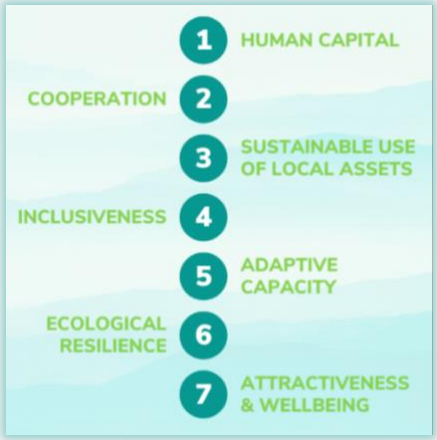

Figure 3 The 7 common objectives of MOVING

1. Synthesis of cluster V in mountain areas of Europe

Cluster V deals with Value and quality production chains and their impact and effects on mountain environments, including social, environmental, and economic aspects. Value chains (VC) considered within this cluster focus on quality schemes, encompassing geographical indications (GIs), organic production and other specific certification schemes or standards (e.g. OQT Mountain product or products from Protected areas, National standards on ecological tourism). Quality schemes, defined by EU regulatory framework or by National/private standards and almost often certified by third parties, are considered as crucial tools contributing to the development and the economic, environmental, and social sustainability of mountain areas, as well as to the competitiveness of EU food and drinks on local and global markets.

The value chains directly involved in the cluster are the following:

Nº	Mountain	Value Chain	Country
09	Eastern Alps	Trento DOC wine	Italy
13	Maciço Noroeste	Douro wine	Portugal
16	Slovak Carpathian Mountains	Bio Honey	Slovakia
17	Betic Systems	Organic Mountain Olive Oil	Spain
18	Sierra Morena	Iberico ham PDO - Los Pedroches	Spain
19	Spanish Pyrenees	Spanish Pyrenees Mountain wine	Spain
21	Swiss Jura	Tête de Moine PDO cheese	Switzerland

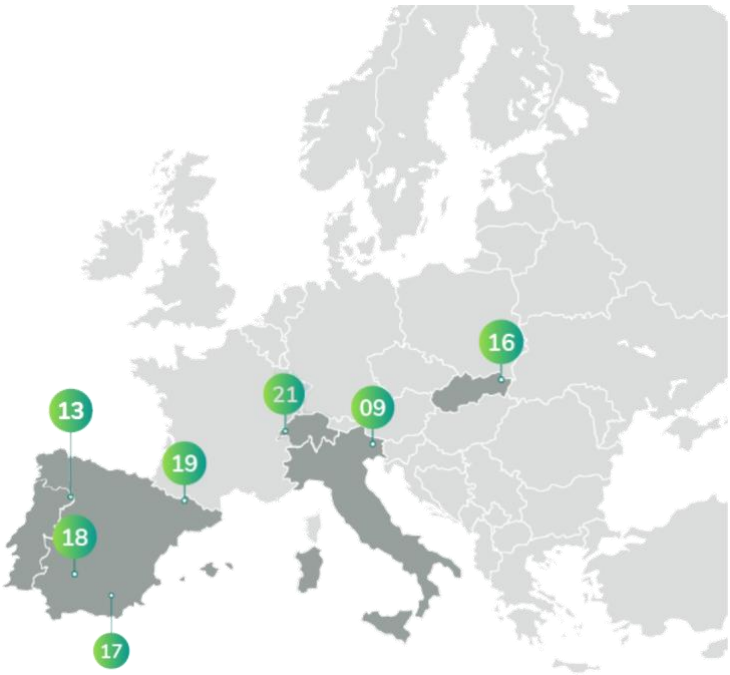

Figure 4 Reference regions that are part of the Value and Quality Products cluster: Eastern Alps (09), Maciço Noroeste (13), Slovak Carpathian Mountains (16), Betic Systems (17), Sierra Morena (18), Spanish Pyrenees (19) and Swiss Jura (21) regions. Source: MOVING 2020

For each of these VCs, Cluster V analysed their performances in terms of contribution to the sustainability and resilience of their regions through the fulfilment of the set of common objectives developed for all clusters included in WP5 (See Figure 4). Specifically, each of these objectives was assessed through indicators tailored to the cluster and to the specificity of the VCs.

Furthermore, the conclusions drawn from the study of the above-listed VCs were further tested and discussed with other VCs based on quality products (e.g. Queijo Serra da Estrela PDO, Sjenica lamb PDO, Speyside malt whisky from Scotland, Taleggio PDO cheese and other derived dairy products) during the Workshop 'Unlocking the Power of Mountain Value Chains', held in Hungary from 6 to 8 November.

2. Challenges addressed

2.1. Communication and valorisation of the whole values underpinned by the quality schemes

The EU-regulated quality schemes mentioned above aim, to a different degree and in different ways, to preserve a diversified set of quality features. PDO and other geographic-based indications schemes aim to highlight and protect the cultural heritage and territorial identity of the value chain and, in a few cases, add some limitations to the production process in order to

maintain traditional methods and some sensorial quality element (i.e., wine or oil). The EU quality schemes based on production methods, on the contrary, i.e. organic, aim to limit environmental impact in all production steps, thus improving the environmental performance of the value chain, but they do not always cover all the aspects that highlight the specific value of a certain mountain value chain (i.e. some aspects of animal welfare, landscape preservation). All the aspects of production are defined in the product specification for EU geographical indications and quality schemes, a comprehensive document narrating the history of the product, its values and the reasons behind differentiated quality, while for organic production they are stated in the pertinent EU regulation. Other quality schemes involved in the cluster are related to Protected Areas standards and only in a case the use of the optional quality term “mountain product”.

Albeit with some limitations, the VCs analysed showed a contribution to the protection of natural and local specific resources, landscape management, biodiversity and welfare of farm animals besides community growth and employment, diversification of rural economy, food security, food safety and traceability. Despite the variety of public goods that quality systems allow to be produced and the efforts to fulfil quality schemes requirements, few of them are adequately valorised and can obtain a fair price.

In fact, all quality schemes imply a traceability system and a third-party certification, which mean additional efforts and costs in terms of work for recording operation and fulfilling certification requirements as well as the economic cost of certification by a third-party control body. This bureaucratic, management and economic burden may be acceptable for producers only if the economic value of the product is paying them back, making a difference compared to non-certified products. However, in some of the cluster VCs, the asymmetry between the efforts required by the certification and the limited acknowledgement by consumers result in a decreasing interest in participating in quality schemes. In fact, many small producers in mountain areas (but not only) decide not to certify their products. That happens because the certified product acquires a higher value, which translates into higher selling prices that consumers, especially the local, are not willing to pay. Therefore, several producers prefer to not adhere to the quality scheme even if the product complies with the criteria for certification, and sell it at lower prices to guarantee a minimum economic return. In these cases, the sale of the same product with no certification while exploiting the PDO's reputation, have been identified as the cause of product devaluation.

Simpler VCs, such as Betic organic olive oil, where the number of operators that can be included in the certification system is limited, there are fewer complications and costs compared to more complex VCs, like those of animal products, where the number and the diversity of actors along the VC are bigger. In the context of small PDO/PGIs, defined by both limited production volume and a smaller number of operators, managing costs, including those associated with producer groups, certification or promotion proves to be challenging for producers. This challenge is particularly marked when competing against non-certified local products, both within and outside the supply chain, that enjoy the same reputation without adhering to the requirements of the geographical indication (GI).

The reflections on the willingness of consumers to recognise producers' efforts in ensuring product quality through quality schemes, along with the factors discouraging producer participation in these systems, have pinpointed the **challenge of effectively communicating the comprehensive value supported by quality schemes**, including not only the sensorial quality of the product but also all the public goods that a product under a quality scheme potentially delivers.

2.2. Success and risk of Industrialisation of the VC, leading to a distance from the initial values of the product (trade-off)

VCs that obtain good success in terms of the reputation of the products and of the area, which translates into good prices and market opportunities for the products, are pushed to enhance the quantity produced and to intensify the production methods. If not properly managed, this risks leading to a negative industrialisation of the processes hampering the sustainable use of local resources and, in the long term, may put at risk the reputation of the product and of the area, with negative impact also on tourism, for example. This trade-off has been identified mainly for some quality cheese, where the GI specifications were not sufficient/efficient in protecting the basic original values of the VC.

A similar development path, negative for the sustainability and resilience of the VC and the local community, takes place when the push to increase the amount produced and decrease production costs leads to outsourcing the main ingredients (i.e. milk) from other areas, where also the production methods are different.

It does not mean that quality products should not innovate or aim at higher efficiency, but a proper balance between economic gains and values of the product and its production impacts on the environment and the local community should be thoroughly considered. To safeguard the authenticity of VC should not be interpreted as “no changes” and only “small scale operations” but all the values and impacts should be weighted and considered. It can be interesting to compare the different development of small-scale vine-growing in Trentino (IT) and in Higher Douro (PT). In the Italian case small producers are considered key for quality management and their cooperation or collective effort is supported by local policies and paid by the premium products. As a consequence, small scale farming, often with mixed productions, also including touristic services, manages to be economically sustainable, attracting also young farmers and maintaining a demographic balance. In the Portuguese case small producers only in a few cases manage to have a cooperative structure, while in the majority of cases large companies took over and became the main actor in grape and wine production. This development negatively impacted local population dynamics.

On the other hand, also a rigid, too strict and not dynamic interpretation of original values and traditional practices risks losing economic sustainability and hampering the whole sustainability of the VC. An example of challenge and solution was highlighted during the Cluster Workshop: the Taleggio, PDO cheese from the Italian Alps. Produced in the Taleggio valley, Taleggio PDO

cheese progressively got a positive reputation that led to a high market request. Such a high demand and the good price offered attracted big companies that started to produce the cheese in the PDO area but on another scale and with different techniques (producing much less positive environmental and social effects). The competition for small scale farmers became unsustainable from the economic point of view, until a group of small farmers and processors started the production of an ancient type of cheese, typical in the area as well, the "*strachitunt*". The retro-innovative cheese obtained through much more restrictive standards, linked to the mountain territory, is acknowledged as PDO that is not only distinguishing it from Taleggio (it is a different type of cheese), but also acknowledging the whole values, including its placement in an Alpine valley.

Another example of the trade-off is the Betic organic olive oil VC, which is based on ancient olive trees that grant a high landscape value to the area but increase production costs. In order to enhance the economic sustainability of the VC, replacing ancient trees with new trees of more recent varieties grown in a modern trellising system could be an option leading to an economic gain, but the impact on the landscape could put at risk the VC reputation and the value of the area. The fact that the VC is in a mountain area may preserve it from intensification as productivity is anyway limited by climatic and soil conditions, but climate change may alter the conditions.

2.3. Governance and power distribution along the VC

A topic highlighted as a challenge is bargaining power distribution (the capacity of one party to influence another, to exert some kind of pressure on the other, or the ability in our specific case to derive greater benefits that are not redistributed equally across the territory and the actors) and inclusion. As a matter of fact, all the VC examined showed a very good level of cooperation among the actors participating in the VC, some better than others. This happens thanks to several form of organisation, for example being part of a producer group, a cooperative or an interprofessional body and also thanks to the cooperation and coordination with other actors of the territory that are involved to some extent in the VC, contributing to it and its development, such as universities or consultancies helping developing new practices, or other types of public and private actors (municipalities, local/regional governments or associations).

However, a trade-off between bargaining power and inclusion emerged, determined especially by asymmetrical relations between actors. In fact, where big cooperatives are present, they have more power over little firms that are not associated even if belonging to the same VC or quality production (i.e. Los Pedroches PDO Iberico Ham), or sometimes there's a lack of trust in the collective organisation due to low level of organisation and coordination and poor managing, thus creating power imbalances and mistrust that may affect or limit the possibility of VC development and evolution.

The survey raised other critical points, namely a) polarised bargaining power unbalanced along the production chain with a clear major power towards the final steps actors; b) food fraud or unclear communication (some similar but non-certified local products mistakenly enjoy the same reputation without meeting the requirements of the GI, as mentioned above).

These aspects can also be seen as consequences of a weak structuring of the producer group that often is very active in the early stages of quality scheme definition but progressively loses interaction and internal dynamics after the recognition or when generation renewal takes place. This social development is also affecting the innovation process, often based on individual initiatives, and the standards update and development, needed as climate change is impacting production but also because positive new techniques and tools become available. A broad continuous involvement of actors in standard/specification definition would also have a positive impact on trust and community identification.

At the same time a fair and transparent profit sharing would be an essential element for long term cooperation within the VC.

3. Policy Recommendations

The policy needs of mountain VC does not differ greatly by other remote rural areas where small scale farming is a key element, nevertheless some specific issues were identified.

- As the sound development of VCs require long term commitment and involves several domains, the development of a **multi-fund approach and a greater interrelation between funds for financing local strategies**, should be encouraged, in order to guarantee the coherence among different policies. The combined policy set should protect local resources and highlight their specific values, not homologate mountain VCs to more productive areas production and avoid the risk that more favourable climatic conditions (due to climate change) in mountain areas lead to intensification not respectful of local resources, with the risk of depleting them in short term;
- Recognises that quality schemes (GIs, organic, mountain product, hey milk etc.) can also be a key factor in obtaining a UNESCO World Heritage label and, in order to promote rural areas, recommends **synergy be created between these labels**, enabling cultural heritage to add value to agricultural value chains and thus to the whole economy of the territory;
- **Provide support to a continuous, participative and dynamic development of quality schemes standards,** for example through skilled facilitators that can maintain/enhance the community engagement and see certification optimization potentials (see next point). A strong governing body of the quality scheme (i.e. GI consortia) could also properly manage a certain degree of flexibility in standards implementation, in order to adapt them to small scale farming but also to climatic variability, without hampering the credibility of the certification. Farming practices and their sustainability/acceptability should be reviewed at least every five years in order to keep them up-to-date and not risk keeping obsolete practices in the product specification that do not adapt to climate change (i.e. irrigation in vineyards).
- **Funds to support the continuous adaptation/update of standards as well as ex-ante and ex-post evaluation of quality schemes** can be supported by Rural Development Plan measures.

- Multiple actors, such as producers' networks, processors, public authorities and research centres, participate on different levels at the quality scheme and its implementation, solving conflicting interests, negotiating quality standards and defining common rules. In this regard, **a supportive legal framework with assistance from local public authorities can back up the community of producers in technical aspects and as mediators of conflicts.** Although the interaction of such heterogeneous actors might be costly in terms of time, in the end, the involvement of all conflicting interest groups pays off and can facilitate empowerment, trust and social cohesion, higher acceptance of common quality standards, co-learning processes on product characteristics and higher use of the quality label after registration;
- **Test a combination of quality schemes** (i.e. PDO/PGI + organic + mountain product) **and interaction with other territorial regulatory tools** (i.e. Natural protected areas regulation) **with a light bureaucratic burden for small scale producers**. For example adapting the methodology of collective, participatory or group certification. Specifically for organic schemes, the implementation of group certification (as from EC Reg. 2018/848) should be adapted (as economic limitation and in the required collective trading) to mountain small scale farms and communities. Some pilot implementations in mountain areas could be beneficial also for the regulatory development. Public funds could be allocated not only or not primarily to cover certification costs, but to pay services (facilitators) that support farmers/producers in their certification efforts, also increasing the use of digital tools. Some experiences with Participatory Guarantee Systems (PGS) suggest it can be an excellent tool for guaranteeing (not certifying) new or small scale VCs, with multiple benefits also on the community and communication. PGS can also be a starting point for VCs that can further evolve/increase and reach a stage in which they can implement a certification scheme.
- **Rules for funding promotion campaigns of quality products** (as from Regulation 1144/2014/EU) **should be reviewed in order to allow also for smaller projects aimed at local area campaigning**. Besides, the procedures to access the funds should be simplified and made accessible without the need of investments in the preparation phase, the percentage of financing should be increased in the case of small VCs (small scale producers) especially in mountain areas and using the OQT "mountain product". Long term and broad communication campaigns would help in making clear the multi sided value and reliability of the schemes and their difference from non certified products.
- In the definition of specific quality schemes (GI) linked to mountain areas, **the area of production should be strictly defined within the mountain area** (no enlargement to lower areas where production is forcely cheaper and ends up to compete with mountain farming).

Expected impact on Cluster V objectives

The proposed policy interventions aim at the impacts listed below:

- A multi-fund approach and interrelation between funds for financing local strategies can benefit all objectives.
- Quality schemes as a key factor in obtaining a UNESCO World Heritage, may mainly contribute to attractiveness and wellbeing but also to sustainable use of local assets and cooperation.
- The support to a continuous, participative and dynamic development of quality schemes standards are essentially a tool to contribute to human capital, cooperation, ecological resilience and attractiveness and wellbeing.
- The combination of quality schemes and interaction with other territorial regulatory tools with light bureaucratic burden, for example through a Participatory Guarantee Systems, are seen as contributing mainly to sustainable use of local assets and ecological resilience but may strongly contribute also to attractiveness and wellbeing.
- Better ruled and tuned promotion campaigns of quality products with simplified procedures and the use of OQT “mountain product” aim at contributing to ecological resilience as well as attractiveness and wellbeing.
- A better (sometimes stricter) definition of the area of production for GI, linking the product to mountain area exclusively, is a way to contribute to attractiveness and wellbeing as well as to the sustainable use of local assets.

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More information at **www.moving-h2020.eu**

Policy Brief Cluster “I” · Innovation and Infrastructures

Introduction

MOVING is a 4-years Horizon 2020 funded project whose main objective is to build capacities and co-develop relevant policy frameworks across Europe for the establishment of new or upgraded/upscaled value chains that contribute to the resilience and sustainability of mountain areas, using a bottom-up participatory process that engages value chain actors, stakeholders, and policymakers. The project is developed in 23 European mountain regions. Some additional objectives are:

- Establish a European-wide Community of Practice (CoP) on Mountain Value Chains, including actors from the Agricultural Knowledge and Innovation System (AKIS), value chain and policy-making stakeholders and society.
- Develop a conceptual and analytical framework based on the understanding of mountains as Social-Ecological Systems, describing and interpreting the diversity of mountain value chains, and assessing their contribution to the sustainability and resilience of mountain areas and population.
- Provide visual tools to raise awareness of the Agricultural Knowledge and Innovation System (AKIS), value chains actors, civil society, and policymakers on the diversity of land use and production systems of mountain areas, the threats they face, the bio-physical assets they can mobilise, their sustainability, and their resilience to climate change.
- Study the configurations, strategies, dynamics, and value distribution of different value chains in the main European mountainous areas to assess their contribution to sustainability and resilience.
- Develop in-depth, participatory, critical benchmarking of clusters of mountain value chains to identify enablers and blocking factors affecting the sustainability and resilience.
- Carry out foresight exercises to capture and anticipate the long-term trends affecting mountain areas, co-constructing shared visions and strategies for a balanced mix of public and private goods.
- Elaborate an evidence-based and performance-focused policy roadmap and policy design toolkit for the next generation of policy interventions to enhance the connectivity, sustainability, and resilience of mountain regions.

During the project development, an in-depth analysis of a value chain in each mountain area was conducted to determine its contribution to sustainability and resilience. Subsequently, the 23 value chains were categorised into five distinct clusters for cross-comparison and benchmarking. Each cluster aimed at addressing a specific challenge: Social and Demographic aspects (S), Innovation and infrastructures (I), Governance, Territoriality and cooperation (G), Nature and ecosystem services (N), and Value and quality products (V). To facilitate the analysis, seven common objectives were established (see Figure 5), and various participatory activities were carried out. These included a cluster workshop involving stakeholders from all value chains within the cluster and a questionnaire answered by experts from each value chain. This Policy Brief serves as a synthesis overview of the results obtained in Cluster S (Social and Demographic aspects).

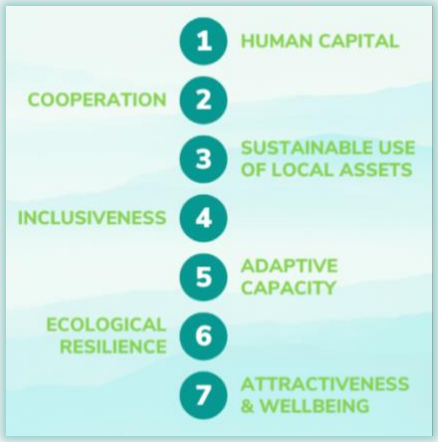

Figure 5 The 7 common objectives of MOVING

1. Synthesis of Cluster I in mountain areas of Europe

Innovation and infrastructure play a crucial role in supporting sustainable and resilient value chains in mountain areas. The remoteness and difficult terrain within these areas often result in high infrastructure costs, low investment interest and centralisation of services. At the same time, the rate of innovation in mountain communities tends to be lower than in urban areas due to various factors, such as an ageing population and the dominance of the primary sector. Furthermore, the availability and quality of infrastructure play an important role in the performance, innovation capacity and modernisation of value chains in these regions. In addition to infrastructure, other factors create an environment for innovation, such as creative and critical thinking, a sense for technology and forward-thinking processes. Innovation, infrastructure and other innovation-enabling factors discussed in Cluster I are linked to the following MOVING objectives: (1) Human Capital, (2) Cooperation, (5) Adaptive Capacity, (6) Ecological resilience, and (7) Attractiveness & wellbeing.

The analysis of the results in Cluster I revealed three overarching themes that are critical to infrastructure and innovation: Capital, Education, and Connectivity. Capital encompasses both financial resources and human resources, highlighting the importance of financial support for start-ups and businesses, economic stability, and a skilled workforce. Education plays a key role in fostering knowledge sharing, continuous learning, and innovative thinking. The rich historical and traditional knowledge found in mountain areas is a good resource for developing suitable strategies and approaches. Fostering a forward-looking community means empowering young people to embrace change and innovation. Connectivity, the third theme, highlights the need for robust digital infrastructure, efficient transport networks, and well-equipped social facilities in

remote mountain areas. The creation of an attractive living environment and professionally adapted infrastructure is crucial to retaining and attracting a skilled workforce.

In the next chapters, the identified challenges according to the cluster as well as policy recommendations as part of the solution are described. In the end, the MOVING objectives n are linked to the policy recommendations.

The five mountain regions and value chains that have been considered in Cluster I are:

N°	Mountain	Value Chain	Country
07	Transdanubian Mountains	Agroecological Knowledge	Hungary
08	Central Apennines	Alto-Molise dairy	Italy
13	Maciço Noroeste	Douro wine	Portugal
20	Swiss Alps	Mountain grain	Switzerland
22	Beydaglari	Greenhouse tomato	Turkey

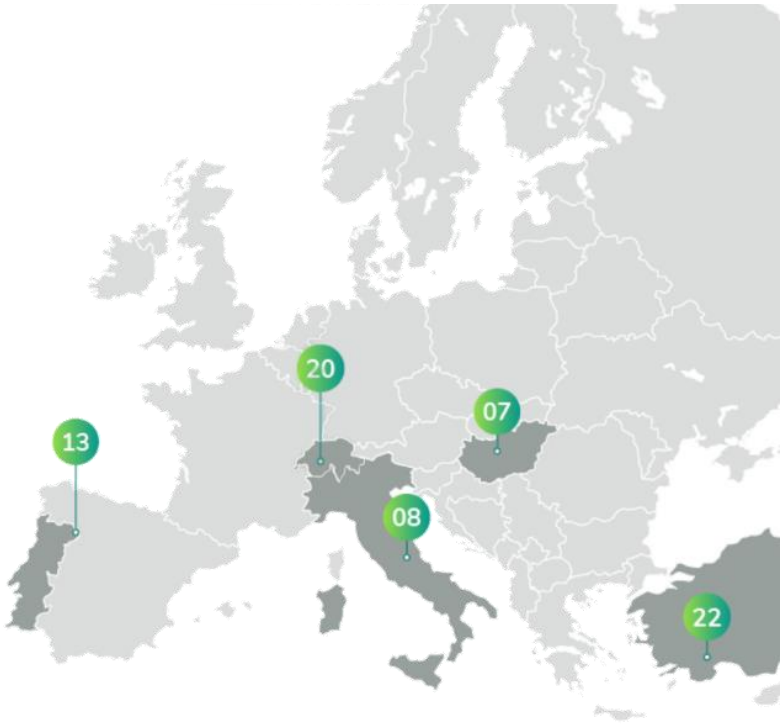

Figure 6 Reference region that are part of the Innovation and Infrastructure cluster: Transdanubian Mountains (07), Central Apennines (08), Maciço Noroeste (13), Swiss Alps (20) and Beydaglari (22) regions. Source : MOVING 2020.

2. Challenges for innovation and infrastructure

Several innovation and infrastructure challenges have been identified based on the previously mentioned key themes. The following chapter describes the main challenges in three categories: Knowledge and skills, Financial resources, and Infrastructure. The challenges described are not

an exhaustive list, but represent the main challenges identified in the analysis. These challenges can ultimately be the barriers for innovation and therefore need to be addressed to support innovation as a whole.

1. Knowledge and skills needed for innovative VCs

The remoteness and low population density of mountain areas make it difficult to have adequate education, trainings, and advisory services and ultimately leads to a lack of a skilled workforce.

Limited mountain-specific training and advice for farmers

One challenge often mentioned was that education and training for farmers was not designed for the specific conditions in mountain areas. Farmers in mountain areas face specific challenges: Mountain agriculture is characterised by extensive farming practices on a relatively small scale, making it suitable for organic production. These requirements are challenging in a world where agriculture is becoming larger and more intensive. Using small-scale technologies, including digital literacy, may require specific skills or training. Mountain farmers also face difficult weather conditions with harsher winters and shorter growing seasons, and geographical and topological challenges with remote areas or steep slopes. These aspects require adapted training opportunities and advisory services for mountain farmers, which is often lacking in the discussed VCs.

Scarcity of skilled labor

The main challenge in terms of human capital is the scarcity of skilled labor in mountain areas, especially in sectors of production and processing stages that require specialized knowledge. On the one hand, this is linked to the lack of specialized training in the area, as mentioned in the previous chapter. On the other hand, living conditions in mountain areas are often less attractive, e.g. in terms of services and (professional) opportunities, leading to an out-migration of potentially skilled workers. As a result, many mountain communities are experiencing an ageing population, leading to a decline in the labor force and a lack of fresh perspectives and knowledge that could drive innovation. In the VC Alto Molise, for example, many young people who are starting families move to urban areas because of the long distances to hospitals and schools.

2.1. Financial resources

The main financial challenges are related to resource constraints as mountain regions often face resource limitation due to the low population density and limited economic activities. This severely restricts the availability of financial capital to invest in innovative projects and technologies. In addition, infrastructure costs are often higher due to the terrain and remoteness, diverting funds away from innovation and making innovative projects more costly. High production costs in mountain regions further put their products at a competitive disadvantage to intensive lowland alternatives, increasing the economic pressure on producers and processors. This pressure can discourage people from trying out new ideas, thereby hampering innovation.

In parallel, creating an attractive living environment is essential to retain and attract skilled labor. It is therefore also important to ensure a professional and locally adapted infrastructure, such as processing or storage facilities.

Overcoming these challenges requires strategic interventions, such as targeted investments, skills development programs, and policies to foster innovation in mountain value chains.

2.2. Infrastructure

The main barriers to connectivity between people in mountain areas and those in urban areas are related to various infrastructure deficits: digital, physical and social. Digital infrastructure in mountain areas is often poor resulting in poor connectivity and communication. Furthermore, lack of or poor internet access is a major barrier to the use of innovative technologies. Unequal access to the Internet contributes to the digital divide. Access can also be hampered by a lack of digital literacy. This gap can hinder participation in the digital economy and access to online education and business opportunities. Mountain areas also often lack well-developed transport networks, making it difficult for people to commute and access essential services. Remoteness can lead to geographical isolation, limiting access to markets, educational resources, and health facilities. Geographic constraints can limit social interactions, potentially leading to a lack of community cohesion and reduced opportunities for knowledge sharing.

Addressing these connectivity challenges requires a comprehensive approach that includes investment in infrastructure, digital inclusion initiatives, and community-based solutions tailored to the specific characteristics of mountain areas.

3. Policy recommendations

3.1. Education, training and advisory services for innovation

Knowledge sharing through education, training and advisory services play a key role in continuous learning and out-of-the-box thinking, which is essential for innovation. Training opportunities, especially for skills needed in the area, are important to retain young people and to keep value in the area. Thus, education and training are essential to strengthen mountain areas. This recommendation advocates an integrated strategy combining targeted skills development, digital education initiatives and the (re-)use of traditional knowledge.

For farmers in mountain areas, we propose tailored training and advisory services, focusing on the use of mountain-adapted technologies, extensive production methods, and modern applications of traditional farming practices. Addressing the training needs of skilled workers, including millers and cheesemakers, will contribute to building a future-oriented, digitally literate workforce embracing sustainability and innovation.

Mountain areas possess a wealth of historical and traditional knowledge that can serve a dual purpose: addressing production challenges unique to mountain areas and employing storytelling to attract tourism or effectively market mountain products. Communicating knowledge about local mountain products might help to raise awareness of mountain realities among urban residents and potential consumers of mountain products. Raising consumer and societal awareness is essential to promote a shared responsibility for preserving and promoting mountain products. We therefore recommend the incorporation of mountain areas as subjects within national-level general education to enhance societal awareness.

3.2. Financial support for innovation and infrastructure

This recommendation addresses financial support to both individual actors and collaborative groups, such as start-ups, to encourage pilot projects to explore innovative, mountain-specific practices. In addition, direct financial support for the introduction of machinery and technologies adapted to mountain conditions, aims to increase attractiveness and resilience. Adequate financial support in the form of subsidies for ecological landscape management and ecosystem services is recommended to improve ecological resilience. Furthermore, fostering cooperation through financial support for platforms and events will promote knowledge sharing among mountain communities.

Finally, ensuring access to funding mechanisms and credit facilities for farmers and other stakeholders will enable essential investment in infrastructure development.

3.3. Improvement of infrastructure and access to services

Good infrastructures are key for connectivity and knowledge sharing and at the same time greatly influence the living conditions and well-being of mountain communities. To ensure and improve connectivity and knowledge sharing, we recommend investing in digital infrastructure, transport infrastructure and social infrastructure. Digital infrastructure, as access to the internet promotes connectivity over long distances and in particular, digital processes, such as e-commerce or the use of digital technology. Within digital infrastructure, small-scale technologies adapted for mountain areas need to be supported, accessible, and affordable for mountain communities. Transport infrastructure, for example roads or railways, is essential to overcome geographical challenges and facilitate efficient value chain movements as well as enabling tourism. Social infrastructure, like schools or community centers, must be ensured to enable networking events and other collaboration opportunities.

Emphasis on cultural and recreational development, along with community engagement, will ensure that community members are actively involved in shaping their future. Improving access to essential services, such as healthcare and education, through strategic infrastructure investment is recommended. At the same time, social facilities such as bars, sports clubs, and community associations, are essential to promote community interaction, recreation and well-being. Improvements in these aspects would enhance living conditions, consequently retaining

people as key contributors to mountain regions and fostering resilient and innovative communities.

Expected impact on Cluster I objectives

The above-mentioned recommendations are in line with the objectives linked of Cluster I.

The recommendations related to education are mainly aimed at the objective of human capital in the mountain areas. Human capital could be improved by training opportunities that are adapted to the reality of mountain areas. These opportunities could also increase the attractiveness of a mountain community. As part of the recommendation for specific farmer training, ecological farming practices can be taught and have a significant impact on ecological resilience.

Financial support would have a positive impact on adaptive capacity by increasing flexibility and encouraging innovation. It could also have positive effects on cooperation and synergies, especially if funds are targeted at networking measures. Also, the financial support for ecological landscape management and ecosystem services further impacts ecological resilience.

Improving the digital and social infrastructure would primarily contribute to the objective of attractiveness and wellbeing, by improving the working and living conditions in the area. Such measures would also improve, cooperation and synergies. Furthermore, it could increase the adaptive capacity. Improving living conditions and access to services would directly influence the attractiveness and wellbeing of a mountain region. Indirectly, it could further enhance human capital and adaptive capacity.

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More information at **www.moving-h2020.eu**

Policy Brief Cluster “N” · Nature and ecosystem services

Introduction

MOVING is a 4-years Horizon 2020 funded project whose main objective is to build capacities and co-develop relevant policy frameworks across Europe for the establishment of new or upgraded/upscaled value chains that contribute to the resilience and sustainability of mountain areas, using a bottom-up participatory process that engages value chain actors, stakeholders, and policymakers. The project is developed in 23 European mountain regions. Some additional objectives are:

- Establish a European-wide Community of Practice (CoP) on Mountain Value Chains, including actors from the Agricultural Knowledge and Innovation System (AKIS), value chain and policy-making stakeholders and society.
- Develop a conceptual and analytical framework based on the understanding of mountains as Social-Ecological Systems, describing and interpreting the diversity of mountain value chains, and assessing their contribution to the sustainability and resilience of mountain areas and population.
- Provide visual tools to raise awareness of the Agricultural Knowledge and Innovation System (AKIS), value chains actors, civil society, and policymakers on the diversity of land use and production systems of mountain areas, the threats they face, the bio-physical assets they can mobilise, their sustainability, and their resilience to climate change.
- Study the configurations, strategies, dynamics, and value distribution of different value chains in the main European mountainous areas to assess their contribution to sustainability and resilience.
- Develop in-depth, participatory, critical benchmarking of clusters of mountain value chains to identify enablers and blocking factors affecting the sustainability and resilience.
- Carry out foresight exercises to capture and anticipate the long-term trends affecting mountain areas, co-constructing shared visions and strategies for a balanced mix of public and private goods.
- Elaborate an evidence-based and performance-focused policy roadmap and policy design toolkit for the next generation of policy interventions to enhance the connectivity, sustainability, and resilience of mountain regions.

During the project development, an in-depth analysis of a value chain in each mountain area was conducted to determine its contribution to sustainability and resilience. Subsequently, the 23 value chains were categorised into five distinct clusters for cross-comparison and benchmarking. Each cluster aimed at addressing a specific challenge: Social and Demographic aspects (S), Innovation and infrastructures (I), Governance, Territoriality and cooperation (G), Nature and ecosystem services (N), and Value and quality products (V). To facilitate the analysis, seven common objectives were established (see Figure 7), and various participatory activities were carried out. These included a cluster workshop involving stakeholders from all value chains within the cluster and a questionnaire answered by experts from each value chain. This Policy Brief serves as a synthesis overview of the results obtained in Cluster S (Social and Demographic aspects).

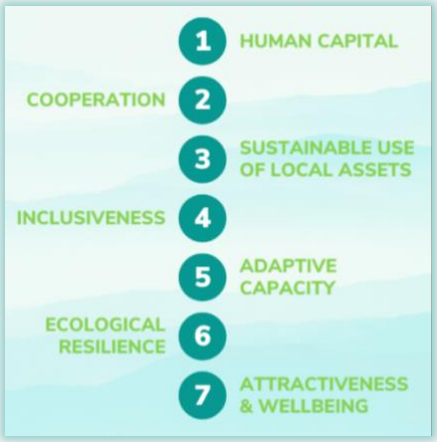

Figure 7 The 7 common objectives of MOVING

1. Synthesis of Cluster N in mountain areas of Europe

Cluster N is focused on mountain regions, which are typically characterised by significant territorial capital stemming from natural resources and unique ecosystems. This capital is actively used by farmers and other rural stakeholders in diverse ways. Within this cluster, there are instances where regions intentionally strengthen the connection between extensive farming systems and the conservation of high biodiversity in agricultural landscapes, exemplified by the concept of High Nature Value Farming. In this context, agriculture assumes a distinctive role in providing ecosystem services. Farmers often adopt highly extensive agricultural methods to contribute to public goods, relying on financial support from the State. But other actors, like tourists or tourism businesses also use these resources. Despite the focus on ecosystem services, farms in these regions also play a crucial role as producers. Abundant natural assets enable farmers to enhance the value of their production, often through specific certification schemes such as organic farming or mountain products certification.

For each of the value chains belonging to Cluster N (Figure 8) we analysed their performances within the framework of three objectives. The analysed objectives were:

- Sustainable utilization of local assets
- Ecological resilience
- Attractiveness and wellbeing

These objectives were analysed using the selected indicators based on benchmarking of data gathered within WP4 and especially Task T4.3. Validation and completion of information was done at the Cluster workshop held in November 2023 in Hungary, where regional stakeholders attended.

The overall outcomes of the analysis (a more detailed description is in Deliverable 5.1) can be summarised as follows. The complex analysis of data available shows that there is a trade-off between the sustainable use of local assets, biodiversity, and high nature value of the areas in general on one side and the attractivity of the areas for residents (especially young people) and the ability or willingness of locals to participate in decision making on the other hand. This could be result of restriction for production function of agriculture within the high nature value of mountain regions and support of ecosystem services provision. This is also acknowledged by the discussion of these issues among local actors at cluster workshops. The data and information gathered at cluster workshops show that the provision of public goods in the form of maintaining a cultural landscape and ecosystem services could threaten the production function of agriculture and, thus the attractivity of these areas for young people.

These results imply challenges that should be addressed by development policies. The main challenges include not only climate change, but also, in the case of Cluster N, the diverse interests of the different land-use actors in the Cluster N regions and their cooperation among themselves.

There are six mountain regions and value chains considered in Cluster N:

N°	Mountain	Value Chain	Country
01	Austrian Alps	Lamb from Weiz region	Austria
02	Stara Planina	Public Goods for High Nature Value Farming	Bulgaria
03	Sumava – Cesky Les	Beef production	Czechia
05	Drome Valley	Sheep meat	France
15	Dinaric Mountains	Sjenica lamb PDO	Serbia
20	Swiss Alps	Mountain grain	Switzerland

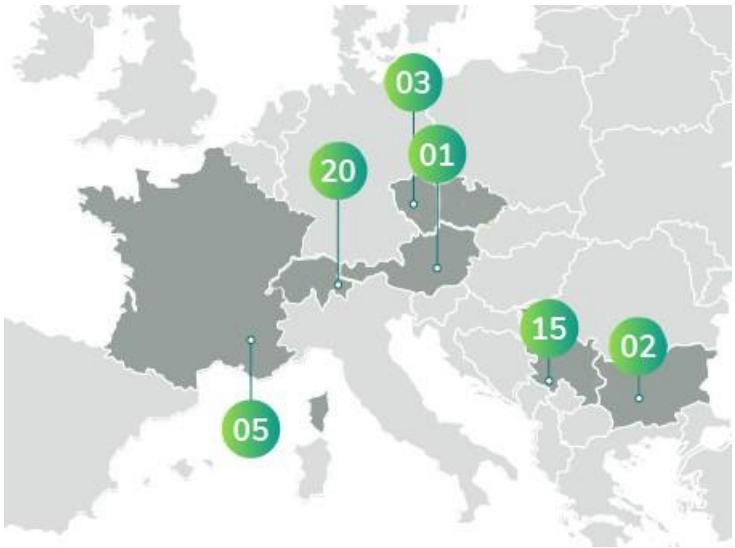

Figure 8 Reference regions that are part of the Nature and ecosystem services cluster: Austrian Alps (01), Stara Planina (02), Sumava (03), Drome Valley (05), Dinaric Mountains (15) and Swiss Alps (20) regions. Source: MOVING 2020.

2. Challenges addressed

2.1. Diverse interests - productivity vs biodiversity

We identified conflicts of interest between different actors in mountain regions. While Natural protected sites and tourists aim to preserve ecosystem services and attractiveness of the landscape as a cultural heritage, farmers´ interest is to utilise the land for cultivation and economic purposes. This leads, in some cases, to overgrazing and following destruction of ecosystem services, which leads to less attractive landscape for local inhabitants and tourists. On the other hand, the increased protection of the areas causes increased tourist interest. This could lead to increased damage, waste and exploitation of some areas with high nature value. Moreover, increased protection of the area may lead to greater abundance of large predators that challenge farmers by attacking their herds.

Sustainable visitor management for protected core zones, sensitive areas had been put in place. Example of implementation of “slow tourism” strategies, or sustainable visitor management such as infrastructure favouring communal transport in sensitive areas. French policy “Grands Sites de France” balances between preservation of high-quality sites and with good practices. Or French Canigou mountain, landscape is preserved thanks to forbidden entry by car, while horse rides, trekking with donkeys and use of electric bikes are encouraged. Furthermore, synergies between farmers and natural protected sites are necessary, the services have to be visible and should be communicated to public, such as animal welfare, positive impacts of organic agriculture and related management, preservation of biodiversity.

2.2. Lack of cooperation among different land users

Synergies between farmers are essential to reach economic and other advantages. Cooperative pasture management supports possibility to cope with big predators. Adding value to products through joined processing facilities and joined marketing, decreased work for individual farmer.

Example – Romanian union of associations, where each product from mountain regions has its own association, the union of associations closely cooperates with natural protected areas, and above that with professionals such as architects, medics to spread the knowledge about their products.

However, we have identified a general lack of willingness to cooperate among the farmers and among farmers and other important actors, namely tourists, local inhabitants, and natural protected sites. The barriers are different production methods, and lack of incentives to add value to production.

3. Climate change

Among the factors recognised as a problem and a challenge are changes in precipitation and changes in distribution of precipitation, warmer winters, more pests and diseases, lack of water

supply for irrigation, introduction of invasive species (e.g. japanese beetle or erigeron annuus). Especially worrying is continual degradation of permafrost and glaciers, extreme weather events, soil erosion and degradation of soil microbiology and soil organic matter. Seasons start at a different time, which on one hand invites longer vegetation periods and new possibilities to grow plants (extended grazing season, however, with lower quality feed available) especially fruit production is severely affected by the changing seasons. Climate change enables to grow crops in higher altitudes; however, this collides with nature protectionism and preservation of landscape attractivity, local inhabitants are unhappy about the use of chemical pesticides in higher altitudes. These factors threaten changes of landscape and composition of plants and overall changes and loss of biodiversity valued by tourists and nature protectionists. Conflicts over the use of water are rising among different actors with competing interests (use of water for ski resorts, use of water for tourists and local inhabitants vs use of water for agriculture irrigation), water shortages occur increasingly. Farmers have noticed decreased yields and inferior quality of yields (often in wine production, corn, olive production, etc.), and in increasing incidents of total loss of crops. Old and local varieties are disappearing. Climate change exacerbates damage to private properties, public infrastructure and threaten human lives.

These aspects lead to abandonment of land and farms and ultimately to loss of cultural heritage and landscape.

3. Policy recommendations

- Although there are existent subsidy schemes and incentives, there is requirement for more targeted funds for farmers and pastoralists in mountain areas that would not only provide financial cover of the expenses, but also help design and establish water retention projects (landscaping design) and sustainable irrigation infrastructure, water recuperation and especially water storage facilities.
- Resiliency of mountain farms on large degree stems also on whether farmers can mobilize resources internally from within their locality and/or farms and limit dependency on external resources (energy, fertilizers, pesticides, etc.). Linking subsidies with principles and requirements of circular economy applied to farm management would nudge farmers to adopt and integrate more principles and practices of regenerative farming and circular economy into their management. An important aspect is also targeted dissemination of the principles and know-how.
- Farmers from mountain areas repeatedly call for holistic and interdisciplinary approach to development of resilient farming systems that would require more structured and complex link with the climate scientists and agriculture advisors knowledgeable or trained in the climate and other sciences. Farmers would benefit from establishing support/advisory group, which would collect data from the farmers´ own experiences and provide them with model scenarios of development of climate change and expected future climate trends, adaptive species and varieties. Necessary step would be establishing an environment and opportunities for sharing and exchange of knowledge and experiences among farmers and agriculture advisors.

- Subsidies are primarily aimed at individual farms, however, they should be also directed as an incentive to increase cooperation and collective action among farmers, and among farmers and other local actors, local associations in which both farmers and representatives of protected sites and the tourism industry are brought together.
- One of the recognized weak spots of the farming is lack of diversity of species and varieties, especially uniform rootstock in grapes and fruit trees across the EU, thus vast quantity of plants is susceptible to new diseases and pests. Subsidies should reflect on this and incentivize adoption of crop diversity, research on resilient wine/fruit trees rootstocks and adoption of locally resistant and context – focused genetic material.
- European Commission already recognized that “Cooperatives have played and continue to play a very important role in the agriculture sector in the whole Europe” (European Commission 2004). However, the tools, methodology and support for establishing and further developing cooperatives in mountain regions, has not been sufficiently disseminated. Filling this gap would require raising targeted awareness and creating incentives to help local actors develop cooperation and co-ops and engage in collective action towards defining common goals and implementing adequate strategy to fulfil those goals. Mediators or intermediaries are necessary to help local actors define their goals and their fulfilment.

Expected impact on Cluster N objectives

The above mentioned recommendations go in line with the objectives linked to Cluster N.

Recommendations focusing on an interdisciplinary approach, cooperation among farmers and climate change experts and knowledge sharing target the objective of sustainable utilisation of local assets. Promoting species diversity also targets this objective. It is the greater diversity of crops grown and their selection in the light of climate change (using cooperation with experts) that can have a significant impact on sustainable utilisation of local assets of mountain areas.

Recommendations aimed at linking subsidies to compliance with the principles of the circular economy and more precise targeting of these subsidies aim at the objective of strengthening ecological resilience. Support for water retention projects, water storage facilities and water recuperation, among others, makes farmers in mountain areas with high natural value less vulnerable to climate change. Dissemination of these principles and know-how is also proving to be very important.

Recommendations aimed at fostering cooperation not only between farmers among themselves but also with other local actors involved in the development of mountain areas target the objective of attractiveness and wellbeing. Cooperation among farmers, protected sites managers, the tourism industry and other local actors is an important factor in the attractiveness of mountain areas with high natural value. Support for local associations is also aimed at the same objective.

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Policy Brief Cluster "G" · Governance, Territoriality, and Cooperation

Introduction

MOVING is a 4-years Horizon 2020 funded project whose main objective is to build capacities and co-develop relevant policy frameworks across Europe for the establishment of new or upgraded/upscaled value chains that contribute to the resilience and sustainability of mountain areas, using a bottom-up participatory process that engages value chain actors, stakeholders, and policymakers. The project is developed in 23 European mountain regions. Some additional objectives are:

- Establish a European-wide Community of Practice (CoP) on Mountain Value Chains, including actors from the Agricultural Knowledge and Innovation System (AKIS), value chain and policy-making stakeholders and society.
- Develop a conceptual and analytical framework based on the understanding of mountains as Social-Ecological Systems, describing and interpreting the diversity of mountain value chains, and assessing their contribution to the sustainability and resilience of mountain areas and population.
- Provide visual tools to raise awareness of the Agricultural Knowledge and Innovation System (AKIS), value chains actors, civil society, and policymakers on the diversity of land use and production systems of mountain areas, the threats they face, the bio-physical assets they can mobilise, their sustainability, and their resilience to climate change.
- Study the configurations, strategies, dynamics, and value distribution of different value chains in the main European mountainous areas to assess their contribution to sustainability and resilience.
- Develop in-depth, participatory, critical benchmarking of clusters of mountain value chains to identify enablers and blocking factors affecting the sustainability and resilience.
- Carry out foresight exercises to capture and anticipate the long-term trends affecting mountain areas, co-constructing shared visions and strategies for a balanced mix of public and private goods.
- Elaborate an evidence-based and performance-focused policy roadmap and policy design toolkit for the next generation of policy interventions to enhance the connectivity, sustainability, and resilience of mountain regions.

During the project development, an in-depth analysis of a value chain in each mountain area was conducted to determine its contribution to sustainability and resilience. Subsequently, the 23 value chains were categorised into five distinct clusters for cross-comparison and benchmarking. Each cluster aimed at addressing a specific challenge: Social and Demographic aspects (S), Innovation and infrastructures (I), Governance, Territoriality and cooperation (G), Nature and ecosystem services (N), and Value and quality products (V). To facilitate the analysis, seven common objectives were established (see Figure 9), and various participatory activities were carried out. These included a cluster workshop involving stakeholders from all value chains within the cluster and a questionnaire answered by experts from each value chain. This Policy Brief serves as a synthesis overview of the results obtained in Cluster S (Social and Demographic aspects).

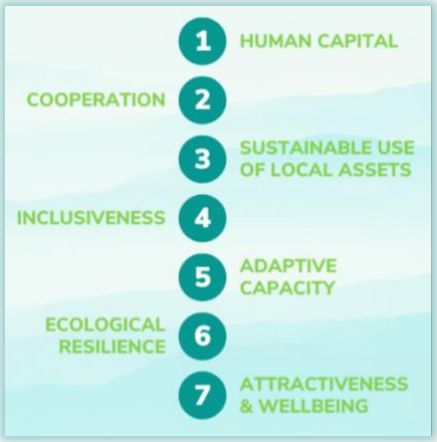

Figure 9 The 7 common objectives of MOVING

1. Synthesis of cluster G in mountain areas of Europe

Cluster G is concerned with Governance, Territoriality and Cooperation in mountain regions. The governance of mountain landscapes involves many actors and institutions at different scales – local, regional, national and international. Cluster G examines how different actors and institutions govern and cooperate in mountain areas to manage social and environmental resources sustainably to enhance the resilience of mountain regions. In particular, it looks at inclusiveness, cooperation between public and private partnerships, and the contribution of the Value Chain (VC) and wider assemblage to the creation and maintenance of governance institutions and strategies within the region.

Rural areas face many challenges, including changing demographics, climate change, economic diversification, infrastructure, digitalisation, wellbeing and land use change. One question is whether such challenges can trigger social innovations through reconfiguration of governance led by civil society (Slee et. al., 2020). Moodie et al. (2023) outline four core governance sub-themes: place-based policymaking, enhanced rural-urban interconnections and interdependencies, participatory and inclusive rural governance, and collaborative rural network governance. In this Cluster, we look at how these governance themes play out in six case studies selected from the wider MOVING project.

There are six mountain regions and value chains considered in Cluster G:

N°	Mountain	Value Chain	Country
03	Sumava – Cesky Les	Beef production	Czechia
05	Drome Valley	Sheep meat	France

09	Eastern Alps	Trento DOC wine	Italy
11	Maleshevski Mountains	Rural tourism	Macedonia
14	Southern Romanian Carpathian Mountains	Certified ecotourism	Romania
23	Highlands and Islands	Speyside Malt Whisky	Scotland (UK)

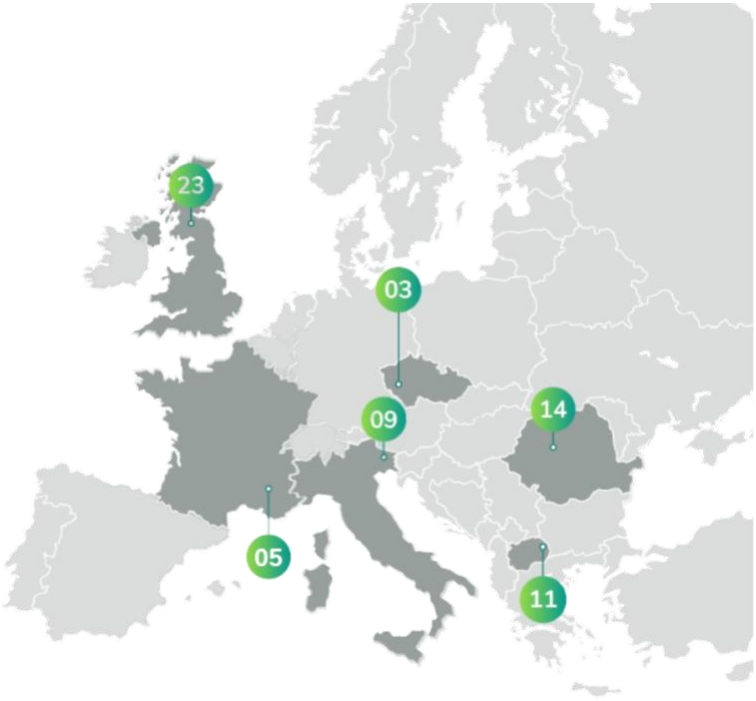

Figure 10 Reference region that are part of the Governance, Territoriality and Cooperation Cluster : Sumava – Cesky Les (03), Drome Valley (05), Eastern Alps (09), Maleshevski Mountains (11), Southern Romanian Carpathian Mountains (14), Highlands and Islands (23). Source : MOVING 2020.

For each of the reference regions, Cluster G analysed the performance of the value chain in terms of contribution to Governance, Territoriality and Cooperation in their wider mountain region, through the fulfilment of the set of shared objectives developed for all clusters (Figure 9). In Cluster G, four objectives were analysed for each of the partner/case study regions using the data from the Participatory Value Chain analysis (Blackstock et. al, 2023):

- Cooperation
- Sustainable use of local assets
- Inclusiveness
- Adaptive capacity

Each of these objectives was assessed through indicators tailored to the cluster:

- Cooperation

    - Trust and cooperation between actors
    - Sharing information and resources between actors
    - Local ownership and control of VC
    - Local participation in decision-making
    - Collective action institutions
- Sustainable Use of Local Assets
    - VC contribution to cultural landscape
    - VC contribution to symbolic capital
    - Sustainability of resource use
    - Protected areas
- Inclusiveness
    - Immigrants involved in the VC
    - Age of actors in the VC
    - Gender balance
    - Accessibility of the resource system to local entrepreneurs
    - Knowledge, training, skills
- Adaptive Capacity
    - Sectoral strategic plans
    - Territorial plans for each stage of the VC
    - Legal obligations at each stage of the VC

Conclusions from the study of these VCs were tested and validated against the experience of the regions' stakeholders participating in the Workshop 'Unlocking the Power of Mountain Value Chains', held in Hungary from 6 to 8 November 2023. Stakeholders confirmed findings from the analysis of the objectives and the indicators.

1.1. Cooperation

Analysing the indicator data from MOVING WP4, we can see that levels of trust and cooperation between actors varies between regions in Cluster G, with Czechia and France being lowest and Italy/Trento, Romania, and Scotland highest. Similarly, levels of sharing information and materials between actors varies across regions, with Italy/Trento, Macedonia and Scotland having highest levels, and France and Czechia lowest.

Most regions in Cluster G sit at medium levels of local ownership of the assets and control of the finances in the VC, and most regions have a medium level of local participation of VC actors in decision making.

The final indicator tells us that all regions have formal collective action institutions that support the production stage of the VC. These vary between the Mountain Reference Landscape level and national level, and demonstrate the existence of multi-actor, multi-level governance.

1.2. Sustainable Use of Local Assets

The contribution of VC practices to existing cultural landscapes is higher in three regions, and medium high for two. In all regions traditional imagery is used to sell products. The contribution to symbolic capital is high for the all VCs with some regions having rules in place relating to the labelling of products, which reinforces the contribution to symbolic capital. Sustainability of resource use varies between VCs, with packaging and high water demands of some products limiting their sustainable use of natural resources. The VCs are all located in, or near, protected areas. These include national designations (e.g. National or Natural Park) and international (i.e., UNESCO).

1.3. Inclusiveness

The indicator immigration refers to the involvement of non-locals in the VC. VCs with lack of participation of non-locals may lack good links with other VCs and governance levels and can therefore indicate inclusiveness based on social capital. There is almost no difference in immigration into the VC of outside actors between cluster cases as all VCs tended towards having local actors rather than having high numbers of immigrants/outsiders involved in the VC. A majority of actors in all VCs tend to be older (>60 years) with the exception of Romania, which are mostly younger (<40). VC actors are overwhelmingly male or a mix of male and female. There are no VCs composed of mostly female actors.

Three VCs in Cluster G have medium levels of accessibility of the resource system to local entrepreneurs (Czechia, Italy and Scotland) and two have high accessibility (Macedonia, Romania). This means that Macedonia and Romania VCs may be more accessible by local entrepreneurs. The question asks about resource system; the indicator uses entrance costs (inaccessible = high entrance costs).

Only the Scotland VC has skills and training available at all scales; other VCs in this cluster had lower levels of skills and training available and/or limited available data.

1.4. Adaptive capacity

In terms of adaptive capacity, Czechia and Scotland reported more sectoral specific strategies and plans at each stage of the VC than France, Italy and Macedonia. These could be used to support multi-level governance in the region through the inclusion of actors from different scales of governing in each mountain region. Scotland also reported more territorial plans but from the data it is not clear if this is a result of having more data than the other regions or represents a real difference. France and Scotland have the highest number of legal obligations associated with their VCs; Czechia and Macedonia medium and Romania lowest. There are similarities here between Czechia and France because both VCs involve the slaughter of animals. Other common legal obligations concern environmental quality and tourism. Scotland may be unique here in that whisky production has many legal obligations on malt whisky processes imposed by the industry.

In summary, VCs from Cluster G showed differences in the levels of trust and cooperation between different actors in the region, leading to different levels of participation in formal and informal governance in each region. Lower levels of trust in Romania, Macedonia and Italy led to lower levels of engagement and participation in decision-making in local governance whereas higher levels of trust and cooperation in Scotland, France and Czechia led to higher levels of participation and the existence of formal and informal mechanisms and institutions of governance in each region.

2. Challenges addressed

2.1. Facilitating multi-level governance in mountain regions

In multi-level governance of rural areas, local participation and adaptive capacity are the most important factors. The most common/serious problems are low levels of participation and giving the impression of encouraging local participation but making it difficult for local actors to engage, for example by not giving enough notice of meetings or arranging at a time that does not suit local actors because of other commitments, meaning that people and communities are unable to fully participate in decision-making processes. Policies for participation can be well-meaning but they are not effective if local people are not empowered to become involved or if they have little confidence that their involvement will make a difference in the outcomes of decisions.

Solutions include strengthening civil society to create a more active civil society. The Community Forum model was considered successful in some mountain regions because they are adapted from models used 50 years ago and local people can understand how they fit with other levels of governance (Burghs in Scotland; socialist institutions in Romania and Macedonia). Regional forums can also be useful as can enabling local people to set their own budgets through, for example, participatory budgeting. In all these examples decision-making is localised rather than involving actors from the national scale, encouraging greater subsidiarity and participation.

Farmers and other rural actors of the mountain regions can find it challenging to maintain the social presence for multi-level governance because of the nature of their work and the timing of meetings and events. One way to manage this is through creating institutions that reflect the different levels of participation - primary (i.e., taxes), secondary (being informed), and tertiary (being interested) (Pascaru & Buţiu, 2010). Thus people can participate through being involved in different ways and at a level that suits them and in which they may have influence.

2.2. Empowering mountain regions through place-based policies

Formal and informal community groups are formed around specific issues, pertinent to the local region. Mountain regions and VCs can support local asset-based development through the creation of forums such as community development trusts (Scotland). Asset-based development

can enable profit and resources to be kept in the local economy and reinvested back in the community in ways that the community decides. The participation of formal groups can be very low unless there is a strong interest in a specific local issue. Regional variations can affect the culture of involvement, including geography, infrastructure and timing of meetings. Building up structures to support multi-level governance takes time (e.g. 20 years +) to overcome initial resistance to something new. It is important that the voice(s) of the local community are heard and listened to in development decisions. This can be done through strong, existing institutions initially, to build up trust and through existing actors to reach out to new entrants. Long-term strategy and planning documents should involve communities and new ways of reaching people could be tried, such as through different ultra-local organisations (e.g. churches, cultural centres) and trusted gatekeepers to capture the experiences of migrants. In the case of the UK, leaving the EU and the subsequent loss of EU funding required authorities and other third sector organisations to look elsewhere for funding to support local development and causes. While this presented challenges, it also created opportunities to engage with different partners and funders.

2.3. Challenging top-down policy-making processes

Rural and agricultural EU policy including for mountain regions, is largely dominated by top-down policy making processes, despite attempts to encourage governance through national and sub-national actors. Where there are low levels of inclusiveness and decisions continue to be dominated by the interests of one sector (agriculture in some regions, tourism in others) then poor decisions are often the result. Poor decisions can also result from a lack of skills and training, and a focus on economic development sometimes to the detriment of the environment, e.g. the example given by one stakeholder during the Budapest workshop of the development of a ski resort at a low altitude when globally we are experiencing higher temperatures and the long-term forecast is for less snow at lower altitude. With greater participation then planning for future tourism could have included a broader range of options that focused on sustainable development.

Within the cluster there was also a need for proper resourcing for local institutions so that they had the capacity to implement national and EU policies at a local level. Too often cluster partners said that the offices or institutions regulating local implementation was underfunded, short of staff or that staff did not have the knowledge or training to implement their responsibilities.

3. Policy recommendations

Policy recommendations were discussed by participants during the cluster session at the Budapest workshop during which several themes emerged between cluster VCs. Analysis of discussion identified six specific policy recommendations for enhancing the governance of mountain regions and their linked VCs. These include decentralization of national policies, reducing bureaucracy around spatial planning policy, adopting a more participatory approach in developing local markets through VCs, strengthening cooperation between local governments

and rural/mountain tourism VCs, supporting local actors to take decisions at local level and strengthening public/private partnerships. These recommendations are given in greater detail below.

3.1. Decentralisation of national policies at regional or local level.

The process of decentralization encourages regional and local governments take more responsibility for the interpretation and application of EU, national and regional policies at a local level. Two examples were highlighted in Cluster G value chains in Macedonia and Romania. Smaller rural authorities, like in the Maleshevski region in Macedonia, can struggle with budgets and human resources in terms of employments and professional capacities of the employees. The burden for coordinating many aspects of local development, including rural tourism and value chain, lies with two offices: Local Economic Development and Sector Tourism. These offices have one, or two employees, seriously constraining their capacity to respond to the needs of the tourism VC, especially in terms of access to funding and mediating between sectors within the VC that are looking to attract the support of national authorities.

In Romania, local public authorities highlight the urgent need for decentralisation of certain national policies at regional, or even local level. Challenging and complicating bureaucracy, that requires a considerable amount of time and human resources to interpret for specific local application, is considered a constraint for the sustainable development of the area. While a decentralised policy and decision making could respond to local needs, take into account the local context, require far fewer human resources and be much quicker to implement.

3.2. Lessen bureaucracy in spatial planning policy

The need for decentralising policy and decision-making process was mainly concerning spatial planning policy (in Romanian Carpathians). Local public authorities, and in particular the regional mayors, find the process for defining and getting approved the General Urban and Area Urban Planning is very bureaucratic, complicated, and lengthy because they need the final approval of a national institution. Considering the importance of spatial planning for the development of a sustainable form of tourism in the area (solving the agricultural land abandonment, as well as the chaotic building development), this is one of the most important policies to consider for subsidiarity purposes. Developing plans for the management of Natura 2000 sites and for the resilience of the area towards climate change and natural disasters, in collaboration with other institutions (e.g.: Ministry of Environment, Ministry of Forestry) were also mentioned as specific policies for decentralization and decision making at regional and local levels.

3.3. Adopt participatory approach in developing local markets

The VCs in mountain regions provide opportunities for participation of local citizens and local actors in general to collaborate and discuss visions for the development of production, processing and distribution infrastructure within the mountain region and beyond, so the process of market-driven development is bottom-up as well as top-down. Encouraging public discussion and debate between actors across the different sectors of the VCs in mountain regions will help the vision for the future of the region to be realised across different sectors.

3.4. Strengthen cooperation and communication between local governments and rural tourism value chains

Poor implementation of top-down policies at a local level can burden and weaken the value chain in mountain regions, particularly tourism. Lack of good, local implementation of national and EU policies affects the environmental quality of the regions, e.g woodlands, and the availability and quality of private accommodation in the region for visitors. For example, in Macedonia, private entities are not registered at the tax office, thus not categorized according to the tourism services they provide. This is jeopardizing the quality of the tourism experience since the visitors do not have a process to feedback their experience if they do not get the quality they were expecting. Advertising on social media also raises expectations of tourists. There are two reasons for the absence of registration: the process of categorization of the service is centralized and dependent on the institutions from the capital, Skopje, and the short stay of the tourists, the poor financial turnover for the owners. Decision makers in the Multi-Actor Platform of the MOVING project working with the research team in the Foresight visioning exercise outlined this lack of categorisation as a serious threat that should be prioritized and in order to provide greater local accountability of tourism services in the mountain region.

3.5. Support local actors to develop institutions to make decisions at local and regional levels

Municipalities and VCs along with other local institutions should be supported from the national government to establish local and regional organisations for the professionalization of the tourism sector, identify and attract funding and thereby increase the quality of the sector and the tourism experience in the region. In tourism, laws and policies are created and mostly implemented by institutions at national level. Decentralisation would create opportunities for local governments and non-governmental actors within civil society to take responsibility for implementation of some policies and measures at a regional and local level. It should however be emphasised that most local governments are facing challenges over financial resources, attracting professional staff, have small and reducing number of employees and frequently lack funding for full implementation of local development measures.

An example in Macedonia recommends the support of national government for municipalities and VCs in the Maleshevski region to establish a Destination Management Organisation which, although small, will take over responsibility for professionalization of tourism in the region and for achieving goals for rural tourism development.

3.6. Strengthen public/private collaboration through partnerships

Public authorities consistently highlight the need for decentralisation of decisions to regional and even local level, to avoid underfunding of rural areas and to reduce the bureaucratic process (considered cumbersome, time-consuming and an obstacle to solving problems). While some regions (e.g. Romanian Carpathians) can point to a poor history of collaborations in the region, only through the establishment of public-private partnerships (e.g. Scotland) can they contribute and ensure the sustainable development of the region. A collaborative process should happen, bringing all actors around the same table, to start projects targeting building the resilience of the region.

Expected impact on Cluster G objectives

The above recommendations can be seen in line with the objectives of Cluster G, namely cooperation, sustainable use of local assets, inclusiveness and adaptive capacity.

Recommendations aimed at enabling greater local decision-making and empowerment for local institutions impact cooperation of local actors and inclusiveness within the region, since governance is more impactful when it includes a range of actors from different sectors, and when knowledge and social capital can flow between the VC and institutions from outwith the region.

Several recommendations include enhancing partnerships and collaboration between public and private sector actors, for example between local government and mountain tourism VCs. This includes the non-tourism VCs since they play an important role in helping to attract tourists to the mountain region through provision of local products. Greater cooperation between VCs and tourism organisations could impact the sustainable use of local assets, including the natural environment, as well as support the production of local products enhancing the cultural heritage of the region.

Recommendations that aim at creating local institutions and taking more decisions at local level impact on the region's adaptive capacity and long-term sustainability, especially in the face of funding cuts from EU and in national governments following recent geopolitical events. Building regional capacity in local skills and supporting local actors will be important in ensuring the success of institutions at a local level and supporting local decision-making into the future.

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