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Abbreviation list

Term	Description
AGADER	Galician Rural Development Agency (Spain)
BSC Kranj	Business Support Centre Kranj (Slovenia)
EU	European Union
NMA	Romanian National Meteorological Administration (Romania)
ROP	Regional Operational Programme
RRF	Recovery and Resilience Facility
UPatras	University of Patras (Greece)

Executive Summary

Demographic concerns and population aging represent shared challenges across all regions. Rural depopulation and youth flight from rural areas are identified as key contributing factors. The intensity of depopulation crisis varies among the regions, but is most pronounced in remote, least accessible and mountain towns and villages.

Rural abandonment and urbanization present challenges in all regions. The decline of traditional agricultural activities and the attraction of young talent to sectors such as tourism, services, and technology, primarily centred in larger cities, are cited as driving forces behind these trends. Supporting functional rural areas and enabling smart and sustainable rural towns and villages can be a key component in strategies to arrest rural decline.

The impacts of climate change on both nature and society emerge as significant challenges for all regions. The escalation in the frequency and intensity of climatic extremes, such as storms, floods, prolonged drought periods, and the heightened risk of wildfires, is identified as a major threat to ecosystems and societies in the foreseeable future.

Agriculture retains its significance in all regions but experiences a decline attributed to various factors. Significant issues are declining agricultural activity, land abandonment and fragmentation of rural lands available to agriculture, ageing farmers population, increased input prices and operational costs, promoting ecological adaptation and mitigating risks related to climate change.

The SWOT analysis performed for each Down to Earth Region underlined the need for comprehensive rural development plans and strategies. Findings showed that holistic and integrated strategies with complementarity and synergies, both at territorial level and between different objectives are essential in mitigating risks, exploiting opportunities, addressing weaknesses and building on regional strengths.

The four general themes that emerged from the SWOT analysis were 'Environmental and Disaster Risk Management', 'Economic and Place-Based Development', 'Social and Demographic Resilience' and 'Governance'. These were in turn, underpinned by 16 specific themes, which comprise 'Environmental policy resources and waste management', 'Disaster Risk Management risk profile and adaptation to climate change', 'Biodiversity Protected Area Status and ecosystem services', 'Agriculture and Forestry', 'Regional growth, employment, and business development', 'Culture', 'Renewable Energy', 'Transport and Mobility', 'Research and Innovation', 'Population trends', 'Public Education', 'Public Awareness, Engagement, Volunteerism, and Civil society', 'Gender equality', 'Public Service Delivery and Staff availability', 'Good plans and legislation', and 'Adoption of Best practices'.

The legal framework analysis flagged 8 EU strategies and tools of key importance to rural regions facing depopulation and environmental risks. Those were the Common Agricultural Policy (CAP), the European Agricultural Fund for Rural Development (EAFRD) Cohesion Policy, European Green Deal, the EU Civil Protection Mechanism, the LULUCF (Land Use, Land-Use Change, and Forestry) directive, and the Paris Accord and the Renewable Energy Directive (RED).

Regional framework approaches and responses to the challenges of depopulation and environmental change vary among the regions. Galicia (Spain) emphasizes land recovery laws at the regional level, focusing on the sustainable use of agrarian land and the supporting role of Regional Government and regional development agency AGADER. BSC Kranj in Gorenjska (Slovenia) is supported in its role by national development strategies prepared by the Slovenian government. Romania has introduced several legal and regulatory frameworks at the national level, aimed at environmental protection and sustainable development, while also participating in several EU policies. The Municipality of Campobasso (Italy) pursues opportunities for land management and village revitalisation set by national law together with local development plans and interventions. In Neckar-Alb (Germany) the federal and state governments set the spatial planning and sustainable development guidelines, followed by Regional Planning and Local

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Government Strategies. Western Greece is transitioning to a comprehensively enforced national framework for actions explicitly addressing environmental governance in rural areas, in forest management and DRM, while locally, communities are supported by integrated territorial interventions from EU Cohesion policy and Rural Development Programs.

The initial diagnosis carried out in the first year of the Down to Earth project has allowed for the identification of crosscutting issues that determine common challenges and priority action lines for public policies in rural areas. The main lessons learnt include:

- The provision of basic services in rural areas require increasing the coordinated strategic planning among different administrations. Likewise, public participation in decision-making is increasingly demanded.
- Initiatives linked to the primary sectors are crucial for sustainable territorial management and should be promoted, but other approaches are important too, including renewable energy, energy efficiency, carbon capture and environmental sustainability.
- Policy initiatives focused on the enhancement of local resources through small-scale work models with a multifunctional approach are being used to promote economic development of rural areas.
- Ecosystem services provided by natural capital need to be considered in the decision-making process for future capitalisation on this asset.
- Cultural and leisure initiatives should not be disregarded as they contribute to the valorisation of the rural community.
- Training and knowledge transfer are crucial for more efficient public policies.

1 Introduction

The Down to Earth project gathers a group of organisations, focusing on six EU Regions, with diverse institutional profiles and expertise, all working on different aspects related to disaster risk mitigation and rural development, while they all address similar challenges in rural areas.

The consequences of climate change represent a common challenge across Europe, with multiple effects including increasing frequency and severity of natural disasters such as wildfires and landslides. The specific impacts vary across the EU, but rural communities affected by depopulation and land abandonment are particularly exposed. At the same time, these two factors also have an impact on the risk and severity of impacts by natural disasters, leading to a vicious circle of mutually reinforcing challenges.

Retaining population and encouraging environmentally sustainable practices in key sectors such as agriculture and land management is thus crucial to curb environmental deterioration, adapt to climate change and contribute to risk prevention.

In the first year of project work each partner organisation submitted their own reports on the theme of environmental risks related with depopulation and aging population in rural areas.

Each of the partner's thematic reports comprised four components.

- A general characterisation of regional climate, economic and environmental conditions.
- A brief overview of applying local/regional, national and EU legal (regulatory) and strategic framework.
- A SWOT analysis focusing on the theme of environmental risks related with depopulation and aging population in rural areas.

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- A list of key good practices developed in the each of the regions, which are significant to consider for the purpose of interregional learning and knowledge transfer.

This final synthetic report brings together the evidence supplied by regional partners, summarises applicable regulatory frameworks in the regions, provides a cross-examination of the SWOT analysis and reviews the thematic focus of regional good practices, with the view to providing recommendations for improving policy instruments and interventions in the regions of the partnership.

The report is structured as follows.

Section 2 summarises the local context of each partner region or locality.

Section 3 analyses the findings of the SWOT analysis in key themes and provides a synthetic list of observations of significance for policy in rural areas facing environmental risks related with depopulation and aging population in rural areas.

Section 4 discusses the regional and strategic framework in the EU and project regions.

Section 5 presents the findings and recommendations of the regional good practices submitted by project partners.

Section 6 concludes the report.

Annex I provides the comprehensive list of entries in the SWOT analysis.

Annex II shows the analysis process of regional good practices.

2 The local context

2.1 Population and economy

The study encompasses six European countries—Spain, Italy, Greece, Slovenia, Romania and Germany—spanning regions of varying sizes and population densities, ranging from 75,260 inhabitants in Campobasso, Italy, to almost 18 million in Romania. These regions exhibit diverse socio-economic conditions and have followed distinct development paths in recent decades. Despite these differences, commonalities prevail, such as a diverse range of economic sectors and activities, as well as shared demographic challenges and the impact of depopulation.

Demographic issues are prevalent across all regions, with population aging, emigration, and rural depopulation being significant factors. The demographic challenges pose a shared concern, for informed public policy development, as they present shared obstacles to sustainable regional growth and development.

Common economic sectors across all regions include agriculture, tourism, services, and manufacturing and technology. However, the relative importance of these sectors varies across regions. Agriculture, for instance, retains its significance in all regions but experiences a decline attributed to various factors.

2.2 Vegetation and land use cover

The study regions cover a wide spectrum of landscapes, climatic conditions and socio-economic context. The diversity in topography, ranging from mountains to plains, the high levels of biodiversity, the challenges in view of climate change, are some of the common factors characterizing all regions.

2.3 Brief regional profiles

2.3.1 Galicia (Spain)

Galicia is a Spanish Autonomous Community located in the northwest corner of the Iberian Peninsula with a population of 2.690.464 inhabitants. Rural Galicia has a long tradition of innovation and experimentation (Quiroga, Fernández & Simon, 2018). The Galician population aged since the end of the 19th century onwards, due to the demographic consequences of the systematic departure of young people. In recent years, two fundamental patterns have emerged as key challenges in Galicia's demographic structure: rural depopulation and ageing. Rural depopulation is linked to increasing levels of urbanisation occurred very rapidly in Galicia from the 1960s to the 1980s and resulted in the current pattern of very low population levels in rural Galicia compared to the past. The rural population ageing is not only a consequence of out-migration but also of the contemporary arrival of retirees who have spent their active years in cities and decide to spend their retirement in rural areas. Galicia has an ageing index (2017) of 154.77 (>150: severe).

Economic activities based on the number of firms per m³ are generally low and unequal distributed within the Galicia rural region. In agricultural sector it is obvious that there is a North/South divide: in the North, farmers' work sustains the countryside, while in the South agricultural inactivity is evident. Tourism has been targeted as the key rural development strategy since the accession to the EU in late 1980s. Rural tourism has been concentrated in South-Western regions and developed not in "deep" rural areas but correlated with proximity to urban areas.

Wildfires are one of the main threats for Galicia in view of climate change, linked with rural depopulation. Rural depopulation has been characterised as a factor of land and landscape degradation with direct consequences on the reduction of wildfire control capacity.

2.3.2 Gorenjska (Slovenia)

The region Gorenjska is located in North-West of Slovenia, bordering Austria and Italy and it is one of 12 development regions of the state. It consists of 18 local communities and has 204.670 inhabitants. The centre of the region is in City community Kranj the fourth biggest city in Slovenia, with 50.000 inhabitants.

The region is characterised by mostly mountain areas with narrow valleys. It is predominantly rural region with small villages and settlements with low population density. The conditions for agricultural production are, except in valleys, rather limited. The region has over 50 % of Natura 2000, over 70 % is covered with forests.

Gorenjska is characterised by a deterioration in the ratio of active to dependent population. Depopulation is an important issue, with the strong tendency of brain drain of young to bigger cities and aging population, where the public services are also becoming rather scarce.

Region Gorenjska has strong industrial and service tradition. Industry through history was based on materials, like iron, wood, leather, wheat etc. and craft/industrial skills, that lead to production of iron, textile, shoes, furniture and other wood products. Economic development brought production of machinery, wooden houses, boats, specific textile materials and products. Based on the natural beauties also sustainable green tourism has a strong part in income of the region. Also other specific services are viable part of economy. Now already services are prevailing, with over 60 % of the regional economy. Most of the companies in the region are SME-s that are mostly working on EU market and other markets.

Several important environment risks were identified in Gorenjska region, like heavy rain and floods, storm and avalanches high heat load and extended drought periods in summer.

The status of species and habitat types of particular European importance, whose habitat is agricultural landscapes, is deteriorating in lowland areas due to the acceleration of agriculture, and in hilly and remote areas due to land abandonment.

2.3.3 Romania

Romania is a country located in southeastern Europe, bordering the Black Sea to the southeast. It is surrounded by Bulgaria to the south, Serbia to the southwest, Hungary to the west, Ukraine to the north, and Moldova to the northeast. The country's landscape is diverse, with the Carpathian Mountains running through the centre, offering beautiful scenery and opportunities for outdoor activities.

Rural areas occupy 87% of the national territory. In 2019, the rural population totalled 8,959,096.8 people or 46.14% of Romania's population. The Romanian rural environment is characterized by a strong social and economic heterogeneity between the different areas of the country, which is also reflected in the level of demographic evolution.

The decline of the rural population, which began as a consequence of the modernisation of society, became permanent through the combination of several demographic, economic and social factors. The demographic decline is also associated with the continuous degradation of the age structure, caused by the aging process of the population, much more pronounced in rural areas than in urban areas. One of the primary contributors to depopulation is emigration, as many Romanians have sought better economic opportunities abroad, particularly in other European Union countries. The outflow of young and skilled workers has resulted in a declining birth rate and an increasingly aging population.

Some of the major economic sectors in Romania include *agriculture, industry and services*. Romania has fertile agricultural land, and it retains an essential sector for producing cereals, vegetables, fruits, and livestock. The country has a significant industrial base, with sectors such as manufacturing, automotive, machinery, electronics, and textiles playing a crucial role in the economy. The services sector, including IT, finance, tourism, and retail, has been growing steadily and is an essential contributor to Romania's GDP.

Depopulation in rural areas has led to the abandonment of agricultural land and traditional farming practices. This abandonment can result in environmental risks, including increased wildfire hazards, loss of biodiversity, and soil degradation.

2.3.4 Campobasso (Italy)

The Campobasso wide area consists of the municipality of Campobasso, the regional capital, and 17 surrounding municipalities. The wider area of Campobasso covers an area of 455.74 km², or 10.2 percent of the entire region, corresponding to hilly inland areas.

The total population of the Campobasso Area is 75,260 people. Ageing of the population is a particular relevant phenomenon, relating both to the increase in the number of elderly people related to improved living, and to the decline in births and younger generations.

The structure of entrepreneurship sees few structured companies and a high number of small businesses, mostly family-owned. In 2019, out of 35,470 businesses in the region, 29,125 were in the province of Campobasso, with predominant the agricultural sector (29.8%), trade (22.7%), construction (12.6%), business services (8.7%), manufacturing (8%), transportation and shipping (2.6%) and a remainder of other sectors of 6.6 percent. In tourism, the restaurant sector predominates, covering 79% of total touristic activities in the region, following by hotel accommodation with 76% of total.

Energy consumption is high mainly due to industry enterprises (62.60%), denoting an underperforming energy efficiency - as well as an opposite trend - compared to the Italian average consumption of 36.70%. The share of electricity consumption covered by renewable sources in Molise, according to 2019 GSE data, equals 39.10% exceeding both the national average of 18.02%, the DM March 15, 2012 forecast for 2018 (29.7%). The share of electricity consumption covered by renewable sources in Molise, according to 2019 GSE data, equals 39.10% exceeding both the national average of 18.02%, the DM March 15, 2012 forecast for 2018 (29.7%), and the target to be reached in 2020 (35.0%).

2.3.5 Neckar-Alb (Germany)

The Neckar-Alb region is formed by the three districts of Reutlingen, Tübingen and Zollernalb. The region is one out of twelve spatial planning regions in the federal state of Baden-Württemberg, with 717,734 residents in 2022. The special attraction of the Neckar-Alb region lies in its diversity. Urban areas with a high population density in the lowlands contrast with quiet, rural areas on top of the Swabian Alb.

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In 2022, 15.0 % of the land area in the region was used for settlement and traffic, 44.9 % were agricultural land, 37.8 % were classified as forestland and 2.3 % were assigned to other types of land use. Between 2000 and 2022, the total population of the region has increased by about 5.6 %, mainly due to intranational and transnational migration.

The region, located very near to Stuttgart (state capital), is widely considered an important economic centre for automotive and mechanical engineering, textile industry, health industry, tourism, timber industry, biotechnology, medical technology, as well as for information and communication technology in Germany. The most important sectors are the service sector and the manufacturing sector which contributed the largest shares to the regions' overall GDP. Focusing on the agricultural sector separately, it must be stated that agriculture is yet of major importance for the Neckar-Alb region, since it covers large parts of the land area and is considered an important provider of food for the local population. A Large proportion of the farms have 10 - 50 ha land (46.7%). Only 25.3% of all farms are main farms, whereas 74.7 % are considered sideline farms.

Depopulation is not a major challenge in the Neckar-Alb region. For the past decades, population statistics reveal a steady increase in the number of residents in the region. Looking at the age structure of the population in the Neckar-Alb region, it becomes obvious, that an ageing population and the demographical change pose severe challenges to regional planning in the region.

The identified environmental risks that are of importance for the Neckar-Alb region are mainly the rise in temperature and heat events, drought periods, heavy rains, floods and storms, forest damage and loss of biodiversity, as well as soil erosion and landslides.

2.3.6 Western Greece

The Region of Western Greece is one of the 13 administrative regions of Greece. It comprises the Regional Units of Achaia and Ileia in the northwestern part of the Peloponnese and Etoloakarnania in the west part of Central Greece. The Region of Western Greece occupies an area of 11,336 sq. km. and its population is, according to the

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2021 census, 648,220 inhabitants, recording a 4.6% decline from 679,796 in 2011. Largest city and regional capital is Patras.

Western Greece's diverse topography, climate, and geographic location have given rise to a wide variety of vegetation types, land use land cover patterns. The Region's landscape reflects a rich mosaic of ecosystems, each with its unique characteristics and significance. Western Greece has a Mediterranean, warm summer climate (Classification: Csb).

The economy consists of many key sectors. Western Greece contributes 4.4% to the overall Gross Value Added (GVA) at the national level. Agriculture, although declining, remains a vital sector, especially in rural areas. Olive oil, wine and dairy products are some of the notable agricultural exports. According to the agricultural census data, the utilized agricultural areas in the Region of Western Greece amount to 2.39 million stremmas (239 thousand hectares), reduced by about 20% from the levels of 2009. The average utilized agricultural holding is 35.5 stremmas (3.5 hectare) per holding, which is the third lowest in Greece, after Attica and Epirus, indicating significant problems such as small-scale agriculture and land fragmentation, which are major limiting factors.

In recent years there has been a noted decline in the total number of agricultural holdings except for greenhouses, which saw a 14% increase. The people employed in the agricultural sector, forestry, and fisheries amount to 84,696.6 or 31.1% of the total employed, followed by the trade-services sector, the public sector and education, the manufacturing sector, and the construction sector. The contribution of the agriculture, forestry, and fisheries sector to the regional gross value is relatively small, accounting for 9.38% of the total GVA of the Region of Western Greece. The main contribution comes from the public sector at 26.5%, followed by the trade-services sector at 22.3%. Livestock farming remains relatively developed in the rural areas of Western Greece. The sheep population amounts to 1.2 million heads and goats to 375 thousand. In 2016, the number of livestock holdings was 44.6 thousand.

The biggest challenges for Greece are demographic problems, rural abandonment and the climate change. Some key demographic issues are ageing population, low birth rates,

brain drain and urbanization. The main causes for rural abandonment economic factors, agricultural decline, limited infrastructure and services and demographic ageing as a result of movement of young population to cities. The effects of climate change are mainly the temperature increase and heatwaves, increased wildfire risk, water limitations, sea level rise, impact on agriculture and biodiversity loss.

Rural depopulation issues are particularly pronounced in mountain municipalities of Western Greece, such as in the municipalities of Andritsaina-Krestena, Thermo and Kalavryta which have recorded in the period 2011-2021 reduction in village population exceeding 20% in some cases.

2.4 Challenges

The primary challenges facing most regions can be summarized as follows:

- a) Demographic concerns and population aging represent shared challenges across all regions. Rural depopulation and the emigration of young individuals are identified as key contributing factors.
- b) Rural abandonment and urbanization present challenges in all regions. The decline of traditional agricultural activities and the attraction of young talent to sectors such as tourism, services, and technology, primarily centred in larger cities, are cited as driving forces behind these trends.
- c) The impacts of climate change on both nature and society emerge as significant challenges for all regions. The escalation in the frequency and intensity of climatic extremes, such as storms, floods, prolonged drought periods, and the heightened risk of wildfires, is identified as a major threat to ecosystems and societies in the foreseeable future.

3 SWOT analysis

A synthesis of SWOT analysis is presented in this chapter, drawing on all regional partner reports from the six Down to Earth EU regions experiencing depopulation and the impacts of climate crisis. It is divided into four main areas: Strengths, Weaknesses, Opportunities, and Threats, each analysed further into themes.

Depopulation poses unique challenges and opportunities, particularly when intersected with the impacts of the climate crisis. This SWOT analysis provides a comprehensive overview of these dynamics, examining the strengths, weaknesses, opportunities, and threats faced by these regions.

Responses have come from 6 regional entities as follows:

- AGADER and Fundación Juana de Vega, Region of Galicia, Spain
- MeteoRomania – NMA, Romania
- Municipality of Campobasso, Molise Region, Italy
- Regional Association Neckar-Alb, Germany
- BSC Kranj, Gorenjska Region, Slovenia
- University of Patras, Western Greece

The regional partner's responses were classed in specific sub-themes that codify areas of organisational practices, activities and external influences the regions are experiencing or expecting to be affected by. Since the regional situation is dynamic, with evolving and co-dependent components, there are multiple classifications possible, where each regional observation statement falling under the SWOT categories could be classed in more than one Theme and Sub-Theme. However, for reasons of parsimony, the statements were classed according to their main object, under a single theme.

The responses are grouped in **four general themes** which comprise 'Environmental and Disaster Risk Management', 'Economic and Place-Based Development', 'Social and Demographic' and 'Governance', which are in turn, underpinned by **16 specific themes**, which comprise 'Environmental policy resources and waste management', 'Disaster Risk Management risk profile and adaptation to climate change', 'Biodiversity Protected Area

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Status and ecosystem services', 'Agriculture and Forestry', 'Regional growth, employment, and business development', 'Culture', 'Renewable Energy', 'Transport and Mobility', 'Research and Innovation', 'Population trends', 'Public Education', 'Public Awareness, Engagement, Volunteerism, and Civil society', 'Gender equality', 'Public Service Delivery and Staff availability', 'Good plans and legislation', and 'Adoption of Best practices'. Table 1 illustrates the general themes and specific themes.

One of the limitations of the listing is that the specific themes of 'Culture' indicated to reference the leveraging and protection of cultural assets, 'Transport and mobility situation and practices', and 'Best Practices Adoption' are not saturated to the degree of themes such as 'Regional Growth Employment and Business Development', and 'Disaster Risk Management'. This however is consistent with the emphasis on economic and environmental aspects in this first year of the project.

Table 1 General themes and specific themes in the SWOT analysis

General Theme	Specific Themes
Environmental and Disaster Risk Management	- Environmental policy resources and waste management - Disaster Risk Management risk profile and adaptation to climate change - Biodiversity Protected Area Status and ecosystem services
Economic and Place-Based Development	- Agriculture and Forestry - Regional growth, employment, and business development - Culture - Renewable Energy - Transport and Mobility - Research and Innovation
Social and Demographic	- Population trends - Public Education - Public Awareness, Engagement, Volunteerism, and Civil society - Gender equality
Governance	- Public Service Delivery and Staff availability - Good plans and legislation - Adoption of Best practices

3.1 Main findings

This synthetic analysis provides opportunities for developing more comprehensive analysis tools focusing on rural regeneration and climate adaptation. The findings illustrate the complex interplay of environmental, economic, and social factors affecting

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EU regions undergoing the impacts of depopulation and climate crisis. The proactive approaches and challenges identified by various entities underscore the need for comprehensive and adaptive strategies to address these issues. Additional information can be found in Annex I.

Table 2 List of 10 items per SWOT category and their definition

	Top 10 reported issues	Definition	Partners reporting specific item
Strengths	Strong environmental policies	Many regions, have well-developed environmental policies and disaster risk management strategies.	Regional Association Neckar-Alb and BSC Kranj
	Diverse economic initiatives	Efforts in promoting regional growth and business development, including tourism and renewable energy.	Municipality of Campobasso and the University of Patras
	Effective public education	Provision of public education on the topics of depopulation, climate crisis and environmental risks	MeteoRomania, BSC Kranj
	High community engagement	Involvement of community in policy and issues such as Disaster Risk Management	BSC Kranj
	Robust governance	Strong governance institutions	AGADER, RA Neckar-Alb, BSC Kranj, Municipality of Campobasso
Weaknesses	Advanced technological adoption	Adoption of technological practices like telework, new techniques in agriculture and land management	UPatras
	Effective resource management	Effective plans of natural resource management	All
	Effective public-private partnerships	Existence of PPPs, linkages with private sector	All
	Strong cultural heritage	Existence of strong traditions, cultural heritage assets	All
	Innovative agricultural practices	Precision agriculture	All
	Environmental management challenges	Challenges of environment management in forests, water, waste	All
	Economic pressures	Business environment, access to finance, tax treatment	All
Inadequate infrastructure	Infrastructure gaps in water, transport, energy		

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Opportunities	Slow adoption of innovations	Slow adoption of innovations in production		
	Limited public service delivery	Lack of facilities, lack of public policy attention		
	Challenges in healthcare access	Level of health service provision, access to health facilities	UPatras	
	Aging infrastructure	Decline of infrastructures, useable age of infrastructure		
	Labour shortages and workforce skill gaps	Lack of employees, reduction of population of active farmers	All	
	Dependency on traditional industries	Large share of agriculture and resource extraction in the mix of economic activities	All	
	Limited funding for development projects	Limitations in the available financial resources committed to rural regeneration		
	Renewable energy investments	Opportunities for leveraging renewable energy sources	AGADER and Municipality of Campobasso	
	Innovation and research promotion	New patents, pilots, demonstrations, experiments and studies taking place in rural areas	University of Patras	
	Synergies between Agriculture and tourism	Local content development and synergies with farms and fisheries sector	BSC Kranj, UPatras,	
	Transport and mobility improvements	Improved infrastructure, maintenance and management of infrastructure, e-mobility and smart mobility	All	
	Demand for sustainable products	Organic products, certified carbon neutral products	All	
	Digital transformation	New tools and techniques for public service delivery	UPatras	
	Educational advancements	Public education programmes and campaigns on environmental risks	BSC Kranj	
	Threats	Healthcare system improvements	Improving healthcare provision	BSC Kranj
		Expanding international collaborations	Building international collaborative and peer learning networks	MeteoRomania, UPatras
Environmental conservation initiatives		New and upcoming conservation plans	BSC Kranj	
Climate change impacts		Groundwater depletion, soil erosion, and the impact of climate change on biodiversity and agriculture	MeteoRomania and AGADER	
Socio-economic challenges		Inequality and poverty in rural areas	All	
Decreasing biodiversity		Decline in habitats, threatened species	All	
Population ageing		Youth flight, ageing population and share of working people in older age	All	
Cultural heritage risks		Heritage loss due to depopulation and environmental risks	UPatras, Municipality of Campobasso	

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Technological disruptions	New technology increasing polarization and inequalities	UPatras
Regulatory issues and implementation burden	Land use policies enforcement, Overregulation, under-regulation, bad regulation	All
Economic volatility	Price increases, inflation in food, fuel, energy	UPatras
Resource scarcity	Threats to water, energy and food supply	UPatras, Meteo Romania
Global health risks	Pandemics, spread of diseases	BSC Kranj

4 Legal and strategic framework

By analysing the legal and strategic frameworks referred by project partners the report aims to provide a deeper understanding of the strategies and legal tools at various administrative levels.

4.1 EU framework

Partner reports highlight as relevant to regional actions on depopulation and environmental change a variety of European Union frameworks, concepts, laws, and policies that encompass key domains, such as notably environmental protection, agriculture, and rural development. Here is a detailed list of these EU frameworks and initiatives as mentioned in the reports:

1. **Common Agricultural Policy (CAP):** A major EU policy supporting farmers, promoting sustainable agriculture, and ensuring a stable food supply. It includes measures for sustainable farming, support to farmers and measures to improve agricultural productivity, combat rural diversification, and improve socio-economic well-being in rural areas. Additional aims of the CAP are ensuring a stable supply of affordable food; helping tackle climate change and the sustainable management of natural resources; maintain rural areas and landscapes across the EU; keeping the rural economy alive by promoting jobs in farming, agri-food industries, and associated sectors.
2. **Cohesion Policy:** Aims to reduce disparities between EU regions by promoting economic, social, and territorial cohesion, supporting sustainable development projects, and addressing demographic challenges. European Union Structural and Investment Funds include the European Regional Development Fund (ERDF) and the Cohesion Fund, contributing to initiatives promoting climate resilience and sustainability.

3. **European Agricultural Fund for Rural Development (EAFRD):** Part of the CAP, this fund provides financial support for rural development projects, focusing on competitiveness, environmental sustainability, and quality of life in rural areas.
4. **European Green Deal:** A comprehensive climate policy framework, including targets for reducing greenhouse gas emissions and transitioning to a low-carbon economy. It is part of the EU's efforts to implement the Paris Agreement. The Climate Action Regulation sets binding annual greenhouse gas emission reduction targets for EU member states.
5. **EU Civil Protection Mechanism:** Enhances preparedness and response to natural and man-made disasters, promoting solidarity and mutual assistance among member states.
6. **LULUCF (Land Use, Land-Use Change, and Forestry):** Critical for the EU's climate framework, as land and forests act as carbon sinks, mitigating greenhouse gas emissions.
7. **Paris Accord:** An international treaty ratified by the EU, seeking to limit global warming to well below 2°C above pre-industrial levels.
8. **Renewable Energy Directive (RED):** Establishes targets for renewable energy use in the EU and a regulatory framework to support its development.

The contributions of project partners AGADER and FJDV in Galicia, BSC Kranj - Gorenjska, MeteoRomania, UPatras in Western Greece, and the Regional Association Neckar-Alb, offer valuable insights into the dynamics between different levels of governance in the multiple policy domains which are addressing the themes of rural development, agriculture, resource management, investment, land use policies, measures to address depopulation to name a few.

At the same time partner entities operating within their specific administrative and geographical contexts, either at national, regional or local levels.

AGADER - Galicia's Regional Enterprise for Rural Development, for instance, offers a perspective on how regional specificities are addressed within a broader regional context of increased devolution on issues of rural and economic development. This entity's

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approach could be reflective of a governance model that prioritizes regional characteristics and needs, perhaps indicative of a more localized focus within a national framework.

Similarly, the approach of BSC Kranj - Gorenjska, with its emphasis on local development plans, underscores the importance of local-level governance. This suggests a model where local insights and needs drive strategic planning, aligning closely with place-development, bottom-up inputs and decentralized decision-making within a national policy architecture.

MeteoRomania's comprehensive legal and regulatory frameworks at the national level provide an example of how national priorities—if well implemented—can shape and influence regional and local administrative practices. This could be seen as a manifestation of a more unitary-centralized governance model, where national standards and policies are pivotal in guiding regional and local administration.

The role of UPatras, is anchored in Greek national and regional educational policies, highlights the intersection of academia and regional development, where action to address rural regeneration challenges is driven by national-level decision making and investment policies and EU policy tools. The university's approach might exemplify the integration of educational and research priorities within regional development strategies, showcasing how academic institutions can contribute to broader goals of supporting welfare, innovation and resilience in rural areas through knowledge sharing and collaborative platforms such as RIS3 and triple helix institutions.

The Regional Association Neckar-Alb offers insights into regional collaborative governance within the German federal administrative system. The Association exemplifies a model of inter-municipal cooperation, where various local entities come together under a regional umbrella to address common challenges and opportunities, demonstrating a collaborative approach to regional development in a given rural area, with objectives defined by regional spatial planning policies.

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In aggregate, these entities represent a spectrum of governance models, from decentralized to centralized, locally focused to more diffused and networked, each addressing specific administrative and societal needs in rural areas. This diversity illustrates the complexity inherent in the management of rural, sparsely populated areas, especially within the European context, where historical, cultural, and political factors shape governance structures. The frameworks of these entities, therefore, provide valuable case studies in understanding how different governance models are employed to meet specific regional and local needs while aligning with national priorities.

The discussion on the EU Frameworks in the local thematic reports covers various aspects of how the European Union's legal and strategic frameworks impact different entities. Each entity's interaction with EU frameworks highlights diverse facets of European policy and its influence on regional and local governance.

For AGADER in Galicia and the Regional Association Neckar-Alb in the State of Baden-Württemberg their engagement with EU frameworks is channelled through regional decentralized institutions of the federal state and the autonomous community.

MeteoRomania reports a notable involvement with EU frameworks. As the national entity of meteorology of Romania, it refers to several EU policies and frameworks, which indicate a significant alignment with European Union directives. This implies a strong integration of EU-level policies in national and regional meteorological and emergency management strategies, showcasing how EU policies can permeate national and regional governance.

For the Municipality of Campobasso in Molise, Italy, the EU's recognition of issues like depopulation as significant challenges and its efforts to address them through various programs and initiatives is particularly relevant. This demonstrates the EU's role in tackling region-specific issues, highlighting how EU policies can support local governments in addressing complex socio-economic challenges.

UPatras - Western Greece: UPatras's regional framework, particularly in the context of environmental law and regional development, underscores the EU's influence on regional policy and development outcomes. The interplay of EU legal frameworks in these areas

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indicates the role of EU policies in shaping policy priorities, aligning them with broader regional development processes.

In conclusion, the EU frameworks' influence varies among these entities, from direct and significant integration to less explicit inclusion. This variation reflects the diverse ways in which EU policies and directives are absorbed and implemented at different administrative levels and in various regional contexts.

The perspectives on the European Union's legal and strategic frameworks, as stated by various entities in the provided dataset, offer a synthesis of how EU-level governance intersects with regional and local administration. Each entity's engagement with or mention of the EU framework provides insight into the multifaceted influence of EU policies across different regions and sectors.

4.2 Regional and local frameworks

The local thematic reports refer to regional frameworks pertaining to the challenges of depopulation and environmental risks in rural areas

The AGADER report emphasizes land recovery laws at the regional level, focusing on the sustainable use of agrarian land. BSC Kranj in Gorenjska is supported by national development strategies prepared by the Slovenian government. Locally, communities in Gorenjska are engaged in developing their own local development plans. MeteoRomania operates under several legal and regulatory frameworks at the national level, aimed at environmental protection and sustainable development. The regional governance in Romania is decentralized, allowing for regional approaches and initiatives. The Regional Association Neckar-Alb in Germany operates within the spatial planning and sustainable development guidelines provided by the federal and state governments. Regionally, they follow the Regional Planning and Local Government Strategies. UPatras in Western Greece functions in a context where the government is moving to a more comprehensively enforced national framework for actions explicitly addressing environmental governance in rural areas, in forest management and DRM. Regionally, the significant planning and public investment strategy documents in Western Greece focus

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on spatial planning and sustainable development for urban areas, environmental resilience, support to competitiveness and entrepreneurship and integrated territorial investments. Locally, communities in Western Greece are supported by Local Action Groups under the LEADER program, contributing to regional development.

5 Analysis of good practices and proposals for improvement

The regional characterization is a fundamental starting point for the correct development of the work of the Down to Earth project. The evaluation of the various impacts that regulations and policies have on rural territories must be carried out in a cross-cutting way with a vision adapted to the rural areas themselves.

In practice, the consideration of various variables allows us to have an overall view in which each issue has implications and effects on the others. This is the basic principle followed by the European Commission to frame its policies in a Long-Term Vision for Rural Areas. The areas of action identified in the Long-Term Vision cannot be considered independently, given that the different topics and scales are interrelated and mutually dependent.

A joint vision of the rural world requires taking into account the specific circumstances of each case. In order to assess the success or the failure of the implemented policies, it is essential to have an understanding of the regional context, with the particular characteristics of each society and territory. Meanwhile, a global vision requires a multi-thematic consideration to achieve a true territorial impact assessment avoiding the risk of compartmentalisation that would denature the diverse reality of rural areas.

The causes that influence rural depopulation and the factors that contribute to the improvement of the resilience of the various areas vary. The protection of rural areas requires the formulation of comprehensive policies that address the various challenges of rurality itself. This is why a multi-level approach is needed:

- Multi-discipline: science, technology, connectivity, digitization...
- Multi-actor: citizens (residents and visitors), researchers, public officials, social agents...
- Multi-system: governance, education, public participation...
- Multi-structural: individual, community, influence groups, interest groups...

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- Multi-sector: agriculture, livestock, forestry, tourism, culture...
- Multi-scale: local, regional, national, international...

In the Down to Earth project, an attempt was made to determine which topics are relevant for policy initiatives to successfully tackle the many dimensions of environmental risks related with depopulation and ageing population in rural areas in the participating regions.

5.1 Methodology

As a previous step in the Down to Earth project, participating partners have prepared local thematic reports presenting an analysis of the territorial, social and economic base of the participating regions and a diagnosis of internal strengths and weaknesses and external opportunities and threats through a SWOT analysis. In addition, the sections referring to good practices and proposals for improvement show, respectively, relevant initiatives that each partner wants to highlight and the aspirations for the future to tackle environmental risks related with depopulation and ageing population in rural areas.

To help project partners identify common challenges and how they are being addressed in different regions, a simple analysis methodology has been designed based on reference documents. The methodology establishes a neutral evaluation for the initiatives that have been identified as good practices in the participating regions. The same exercise has been carried out with regional proposals for improvement. The analysis paid attention to the themes and factors addressed in the various local thematic reports, to later evaluate them within the joint framework. It has allowed us to identify the diversity of the territories under study, as well as common challenges and opportunities.

The first step of this analysis was the numerical aggregation of the subjects treated in the good practices and in the proposals for improvement put forward by the partners. The results were compared with the SWOT analysis developed in each local report, making it possible to detect correspondences and cohesion between the subjects treated in these sections and the initial diagnoses carried out by the regional partners.

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The complexity of the multi-level approach requires grouping the topics addressed to facilitate a uniform treatment of the case studies. Based on the reference documents, the following structure is proposed:

- 1. Society**
- 2. Policies**
- 3. Environment**
- 4. Territory and landscape**
- 5. Economy**
- 6. Technology**

In turn, the various factors that make up these themes will be considered in the analysis according to the following grouped classification:

01_SOCIETY

DEMOGRAPHIC REGIME	POVERTY, EQUITY AND SOCIAL EXCLUSION
AGING AND RURAL GENERATIONAL RENEWAL	TRAINING, EDUCATION AND KNOWLEDGE TRANSFER
MIGRATORY FLOWS	ACCESS TO LEISURE AND CULTURE

02_POLICIES

RURAL DEVELOPMENT POLICIES	COOPERATION AND CONFLICT RESOLUTION
LEADERSHIP AND COORDINATION	SOCIAL SERVICES AND HEALTH
GOVERNANCE, PARTICIPATION AND MULTI-LEVEL APPROACH	GENDRE

03_ENVIRONMENT

AGRICULTURE, LIVESTOCK AND FOOD SECURITY	PROTECTED SPACES
FOREST AND FORESTRY SECTOR	ECOSYSTEM SERVICES AND NATURE BASED SOLUTIONS
CLIMATE CHANGE: ADAPTATION AND MITIGATION	WATER SYSTEMS
ENERGY GENERATION	RISK MANAGEMENT
LAND USES AND SOIL QUALITY	LANDSCAPE VALUES AND INTERESTS

04_TERRITORY AND LANDSCAPE

RURAL SETTLEMENTS	BASIC LOCAL SERVICES
TERRITORIAL MODEL	TRANSPORT, MOBILITY AND INFRASTRUCTURE
URBAN PLANNING AND HOUSING	URBAN-RURAL RELATIONSHIPS AND SYNERGIES

05_ECONOMY

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ECONOMIC STRUCTURE	TAX SYSTEM
MARKETS	ENTREPRENEURSHIP
EMPLOYMENT AND OPPORTUNITIES	TOURISM
06_TECHNOLOGY	
ACCESS TO TIC'S	INNOVATION AND RESEARCH
CONNECTIVITY AND DIGITIZATION	BIOTECHNOLOGY

The classification by thematic categories of both the good practices and the proposals for improvement allows:

1. To establish a comparison with the contents of the local SWOT of each of the regions, to understand how different policy initiatives take advantage of strengths and opportunities and address weaknesses and threats.
2. To carry out a comparative study on the similarities and divergences of the factors covered in the various reports to identify common lines of work among regions, particular aspects of each region and absent factors across the board that could be relevant.

The analysis carried out in the framework of this project is further detailed in Annex II.

It is worth noting that our analysis of good practices and proposals for improvement focuses on the specific cases put forward by the partners and does not aspire to extrapolate the results to the general framework of each of the regions. As explained above, the objective of this exercise is to provide an overview of the key interests and concerns of the partners involved and allow for the construction of a joint vision of the challenges addressed in the project. The diagnosis helps partners identify crosscutting issues that determine common challenges and, hence, priority action lines for public policies in rural areas. This should contribute to improving knowledge transfer in the participating regions and, consequently, to improve decision-making in relation to environmental risks and demographic challenges.

5.2 Main findings

5.2.1 General considerations

The quantitative thematic analysis of good practices and proposals for improvement allows us to draw conclusions about the key topics covered in the regional reports of the Down to Earth project. The topics analysed correspond to those established in the selected reference documents, so the results allow us to achieve an approximation between the regional realities of the partners of the Down to Earth project and the European Union’s Long-Term Vision for Rural Areas.

The main conclusion of the analysis is that, despite the regional diversity, there are common challenges all across Europe regarding the topic of this report (environmental risks related with depopulation and aging population in rural areas). This means that there can also be common solutions.

Figure 1 Total number of times that the different topics appear in the good practices

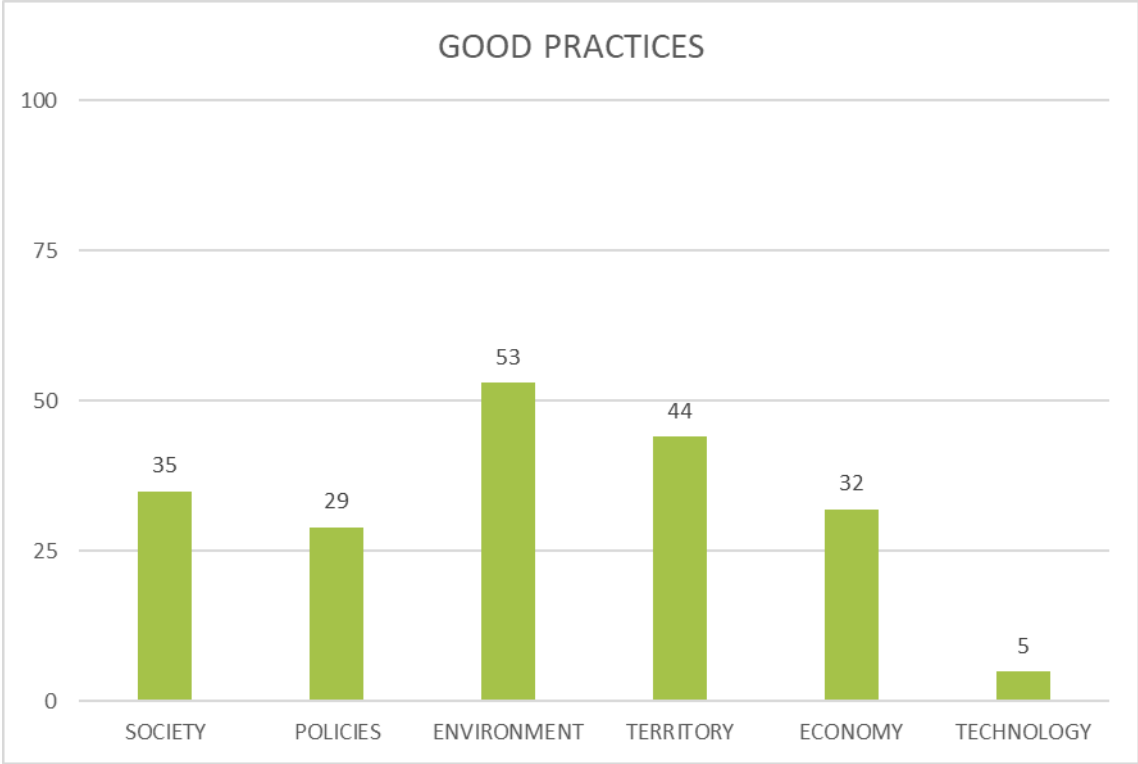
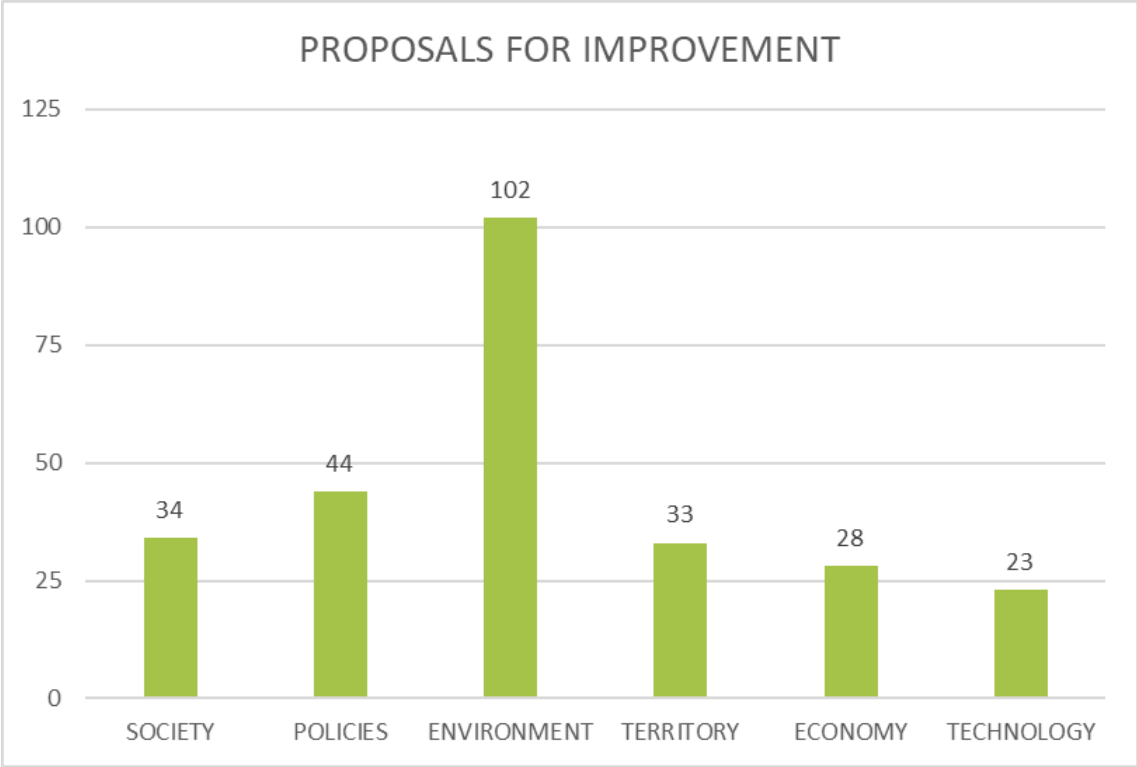


Figure 2 Total number of times that the different topics appear in the proposals for improvement



A first look at the global results shows how the partners of the Down to Earth project focus their attention on the Environment theme, which is logical given the annual theme of the project. However, it is worth highlighting that the frequency of appearance of the environmental aspect is much higher in the proposals for improvement than in the already existing good practices.

The prevalence of the environmental aspect is also reflected in the SWOT analysis, given that, in general, partners consider their environmental policies as a strength. The logic behind this is that both the cases of good practice and the proposals for improvement focus their attention on the core aspect of the annual theme, also coinciding with one of the strengths conveyed in the regional reports.

On the contrary, it should be noted that the challenge posed by the environmental risks related with depopulation and aging population in rural areas has its less applied solution in the Technology theme, being the one with the least appearance in both the good practices and the proposals. Something similar happens with the topic of Economy, the second least referenced in the global calculation. This is remarkable because

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environmental challenges such as climate change are quite often addressed with economic solutions, such as for instance the establishment of circular economy models.

In any case, with the exception of the topic of Environment, which stands out above the others, there is an even distribution of topics mentioned in both sections. This indicates that the reports naturally convey a fundamental aspect in addressing environmental risks and demographic challenges: a global view in which the issues are approached from a multi-thematic perspective allows greater chances of success.

In conclusion, considering all the contributions of the regional reports, it follows that the rural development models of the project partners have a multifunctional basis with aspects linked to a sum of diverse approaches (environmental, cultural and economic). The identification and valorisation of these aspects at the local/regional level and the appropriate decision-making appear to be the key to the success in addressing environmental risks and demographic challenges.

5.2.2 Final considerations per topic

5.2.2.1 Society

- The participating regions are not homogeneous from a socio-economic point of view. Although the aging of the population is a common fact throughout the rural area of the European Union, there are differences across the regions. Thus, Galicia and Western Greece are particularly concerned about issues such as the demographic regime and the aging of the population, while Gorenjska and Neckar-Alb do not consider them to the same extent. The homogenization of the socio-economic characteristics of rural areas is misleading; “rural” is a broad and multifaceted concept.
- Rural areas continue to suffer from certain competitive disadvantages that in some cases can be corrected through the design of efficient public policies. Training and knowledge transfer are crucial for the success of the policy solutions applied. This is reflected, with medium intensity, in all regional reports, both in the good practices and the proposals for improvement, showing the relevance of the issue.

- Access to leisure and culture is the central theme of some of the reports (Neckar-Alb, Campobasso). If understood in a broad sense of valorisation of the rural community, this aspect is crucial in the consolidation of rural societies linked to aspects of equal opportunities and valuing collective self-esteem.
- Population flows and integration of migrants are not reflected directly in the reports. Despite being a central issue in the activation of rural territories with demographic difficulties, the flow of workers towards the countryside (whether from urban areas or from other countries) has a residual treatment in the reports. This is perhaps due to the specific conditions of the regions participating in the project. Likewise, factors such as equity and social exclusion have a limited indirect presence.

5.2.2.2 Policy

- In the reports, rural development is largely linked to the presence of basic services, having great weight in some examples of good practices (Campobasso, Galicia). The improvement of basic services, related to the necessary resources and infrastructures, depends directly on political commitments and therefore on decision-making, making clear the need for a coordinated strategic planning process between the various administrations.
- Public policies are catalysts for rural initiatives and they must act in an integrated and cross-cutting way. The reports emphasize this fact, especially in aspects related to the regulatory framework, coordination between institutions and governance, with public participation being an increasingly demanded element in decision-making processes (for example, in Campobasso, Galicia, Gorenjska and Neckar-Alb).
- One of the key learnings extracted from the reports is the need to harmonize the different local and regional regulations and avoid focusing policies exclusively on aspects linked to the primary sectors. The diversity and multifunctionality of the countryside presents new challenges from a regulatory point of view. Generic issues such as environmental sustainability or specific issues such as carbon capture will need to be addressed more in detail.

5.2.2.3 Environment

- The defined annual theme, environmental risks related with depopulation and aging population in rural areas, is focused on aspects of environmental resilience and therefore explains the prominence of topics directly related to the environment in the reports. In particular, the environmental challenge is a central issue in the reports from Romania, Gorenjska and Neckar-Alb.
- Climate change is a fundamental aspect of the reports, because of the annual topic but also as a generic challenge of today's society. The reports show concern about the issue, addressing the management of the rural territory through the primary productive sectors and the sustainable management of spaces of high natural value as a way of addressing the issue (Galicia, Gorenjska, Neckar-Alb, Patras).
- Risk management, linked to threats detected in the corresponding regional SWOT analyses, is very present in the regional reports.
- The management of renewable energies and sustainable energy efficiency practices in local communities appear directly in the good practices from Romania, Campobasso, Galicia and Patras.
- The lack of references to some factors that could be relevant to the annual topic is also noticeable. The scarcity of direct mentions to ecosystem services and nature-based solutions is particularly significant.

5.2.2.4 Territory

- Territorial management is an important step in the territorial planning process, both for its strategic aspect and for its direct relationship with other topics such as the environment. Galicia's report is directly linked to the issue, especially through its new regulatory framework in relation to abandoned land.
- The territorial dimension is addressed differently by the project partners. As an example, Gorenjska focuses on aspects of sustainable mobility; Galicia on rural settlements; Romania, on environmental management; and Neckar-Alb, on the management of water resources.
- The urban-rural links, necessary to create flows and synergies that allow the population to settle in the countryside, are not reflected in the reports. None of

the regions takes them into account explicitly, despite the obvious connection with other factors such as markets.

5.2.2.5 Economy

- The cases reported in the good practices and in the proposals for improvement show that rural economies differ on their level of development, with different rates of progress. The most vulnerable rural areas are those where the population decreases the most, with smaller and less diverse economies.
- The proposals linked to economic development are in most cases focused on the enhancement of local resources through small-scale work models with a multifunctional approach. This line is clear in the good practices that include the recognition of the values of local communities in one way or another. For instance, the valorisation of local products (Neckar-Alb), the recovery of productive areas of agricultural quality (Galicia), activation of social and cultural capital (Campobasso).
- The development models of the primary sector are linked to the improvement of infrastructure (Western Greece) and the specialization in local products. The concern for food security is explicit in some reports (Neckar-Alb, Galicia) and is linked to the improvement of local value chains through circular economy models.
- Natural capital is perceived as an asset, so initiatives related to sustainable tourism have a significant presence in the reports. There are also examples of good management practices of protected areas of natural value in the regions of Gorenjska, Neckar-Alb and Patras. These are linked to the improvement of infrastructure and the adaptation of the ecological footprint through sustainable practices (for example, sustainable mobility).
- There is hardly any reference to issues such as entrepreneurship or economic structure, which are generally central to rural development strategies. Although the annual theme determines a greater prominence of the purely environmental aspect as such, indirect aspects could contribute to a greater resilience of the territory through its effective management and the retention of population in depopulated areas and/or in areas with an aging population.

5.2.2.6 Technology

- The topic of technology happens to be the least frequent in the reports, despite its direct relationship with the annual theme as an opportunity to develop solutions. It is remarkable the little weight given to the issue in the regional reports at a time when the countryside is becoming increasingly technological by applying these solutions in the agricultural sector (for example, precision agriculture), in the energy sector and in environmental management, among others.

6 Conclusions

The causes that influence rural depopulation and the factors that contribute to the improvement of the resilience against environmental risks can vary greatly across the European regions. The initial diagnosis carried out in the first year of the Down to Earth project has helped partners identify crosscutting issues that determine common challenges and, hence, priority action lines for public policies in rural areas. Understanding what is being done in different regions to tackle these priorities is a crucial step to improve peer learning and knowledge transfer among the participating regions and, consequently, to improve decision-making in relation to environmental risks and demographic challenges, such as depopulation and ageing.

Some key learnings:

- Rural development is largely linked to the presence of basic services. **The improvement of basic services requires a coordinated strategic planning process** between various administrations. While this may sound obvious, additional efforts in ensuring coordination of different administrations are often needed. At the same time, **public participation** is also an increasingly demanded element in the decision-making processes to ensure successful strategic planning.
- Climate change, as a generic challenge of today's society, is often addressed in the rural territory through initiatives linked to the **primary productive sectors**. When operated under sustainability criteria, the agents of the primary sector play a central role in the **management of spaces of high natural value**. The management of **renewable energies** and **sustainable energy efficiency** practices in local communities appear as complementary ways of addressing the issue. Likewise, **carbon capture** and **environmental sustainability** should also be addressed in more detail to reflect the diversity and multifunctionality of the countryside.

- Policy initiatives focused on the enhancement of local resources through **small-scale work models with a multifunctional approach** are being used in different regions to promote economic development of rural areas.
- Natural capital is perceived as a key asset providing multiple ecosystem services. These must be considered in the wider decision-making process that affects rural areas. The preservation of the territorial values is key to ensure rural communities can capitalise on this asset through initiatives linked, for instance, to **sustainable tourism**.
- **Cultural and leisure initiatives should not be disregarded**. These are linked to aspects of equal opportunities and valuing self-esteem in rural areas and therefore contribute to the valorisation of the community, a crucial aspect in the consolidation of rural societies.
- **Training and knowledge transfer are crucial** to facilitate the design of efficient public policies that can successfully address the competitive disadvantages that rural areas continue to suffer.

These are the main learnings extracted from the existing initiatives analysed as part of the Down to Earth project, but this should not be understood as an exhaustive list. As the challenges are varied and multifaceted, so are the potential solutions. To name but a few, the potential of technological innovations to offer new ways of becoming more sustainable (e.g. through precision farming) should be further promoted. Likewise, fighting depopulation in rural areas necessarily involves addressing the socio-economic dimension of the challenge, creating opportunities for entrepreneurs to develop their projects in rural areas and also exploring the opportunities that emerge from population flows and integration of migrants. Last, but not least, rural areas cannot be seen as isolated territories. In an ever more connected world, the synergies of urban-rural links should be exploited to contribute to the activation of rural areas.

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Annex I. Summary SWOT analysis

Strengths

7.1 General Theme: Environmental and Disaster Risk Management

7.1.1 Theme: Environmental policy, resources and waste management

- Environmental organisations and regional habitat connectivity plan (2.1). (Regional Association Neckar-Alb)
- Environmental compensation areas serve to compensate losses of natural habitats. (Regional Association Neckar-Alb)
- Water supply (human, irrigation) (BSC3)
- Very well organised water supply with regular monitoring of public utility service (for human usage). (BSC3)
- Some municipalities have very positive performance of separate waste collection. (Municipality of Campobasso)

7.1.2 Theme: Disaster Risk Management, risk profile and adaptation to climate change

- Community Driven Fire Reduction: Grassroots forest management initiatives reducing forest fire severity demonstrate community driven and also nature-based solutions. (AGADER)
- Not yet a region known for wildfires (2.5). (Regional Association Neckar-Alb)
- Not forced to implement less environmentally friendly activities by the strong competition from other organisation in their area (19). (MeteoRomania NMA)
- No regional spots on heavy rainfalls (2.3). (Regional Association Neckar-Alb)
- Heat action plans and climate change programmes (2.4). (Regional Association Neckar-Alb)
- Very good professional organisation of civil defence, fire brigade rescue teams and other supporting organisations for prevention of fires. (BSC4)

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- Very well organised professionals and volunteer fire brigades and other rescue services. (BSC2)
- Plans for rescue and cooperation (civil defence) are in place: Locals – knowing the area and potential areas of danger (self-organisation of population) (BSC2)
- Growing understanding of the importance of heat waves and its consequences. (BSC4)
- Rainfalls, floods. (BSC2)
- Disaster preparedness and emergency vehicle supply in rural areas (2.3). (Regional Association Neckar-Alb)

7.1.3 Theme: Biodiversity, Protected Area Status and ecosystem services

- Diverse Landscape protected nature, biodiversity landscape and environmental quality (2.1). (Regional Association Neckar-Alb)
- Diverse Rural Environment: A diverse rural environment supports various initiatives catering to different needs. (AGADER)
- A diverse rural environment supports various initiatives catering to different needs. (AGADER)
- Biodiversity and Natura 2000 sites. the biodiversity in protected areas is rather well preserved (flora, fauna) the effective management of Triglav national park assure daily monitoring of the changes in the biodiversity and work on preservation of quiet areas in the park (BSC1)
- Natural capital assets in forests, mountains, wetlands, NATURA 2000 sites. (University of Patras)
- Ecosystem services. (University of Patras)
- Gorenjska has over 50 % of Natura 2000 and also over 70 % of forests (green lungs of the region). (BSC1)
- biodiversity and ecological functions caused by such interventions (2.9). (Regional Association Neckar-Alb)
- Greenhouse Gas Absorption: Forested land absorbing greenhouse gases is a significant environmental strength (AGADER)

7.2 General Theme: Economic and place-based development

7.2.1 Theme: Agriculture and Forestry

- Special support to traditional usage of land orchards, meadows, usage of traditional animals, traditional crops (via national operational program for agriculture and forestry) (BSC)
- Carbon farming (AGADER)
- Orchard meadows preserving landscape and biodiversity with sustainable farming (27). (Regional Association Neckar-Alb)
- Forests, Good national support forestry service. (BSC5)
- Growing support of national and local policy level for usage of local wood species for wood products. (BSC5)
- Special support to forestry (via national operational program for agriculture and forestry). (BSC5)
- Special support for wood production companies (via national support measures for wood industry). (BSC5)
- Knowledge of owners about the forest (its maintenance) and knowledge about sustainable management. (BSC5)
- Knowledge of owners about agriculture crops,cattle, maintenance of land and knowledge about sustainable usage of land (BSC)
- Good national and area plans for agriculture (BSC)
- Agriculture Good national support agriculture service (Chamber). (BSC6)
- Special support to agriculture (via national operational program for agriculture and forestry) (BSC)
- Special support for agriculture companies (via smaller funds at local communities) (BSC)
- Smaller trademarks supported by local communities to foster production and supplementary activities on farms (BSC)

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- Growing support of national and local policy level to ecological farming and innovative practices (BSC)

7.2.2 Theme: Regional growth, employment and business development

- Regional employment growth from 2011 to 2019. (Municipality of Campobasso)
- Good quality support to innovation also at national research organisations (University, Institute) (BSC6)
- Good conditions for quality work (including quality of life). (BSC10)
- Winter and mountain tourism resorts contribute to regional development and year-round activities. (University of Patras)
- Unique tradition and strong product brands associated with the rural areas (feta, kefalograviera, dairy and meat products, honey and fisheries). (University of Patras)
- Already organised employment fairs in some countries outside EU. (BSC10)
- Innovative labs and support mechanisms for entrepreneurship available. (BSC10)
- Demographic change, brain drain and skilled workers (BSC)
- Rather favourable working conditions and accesibility of schools, sport facilities, nature. (BSC10)
- Human capital as shown in skills
- National and international export: Truffle Industry. (Municipality of Campobasso)
- Strong agriculture business of horticulture, fruit and wine production (2.6). (Regional Association Neckar-Alb)

7.2.3 Theme: Culture

- Significant Cultural assets in heritage sites (Olympia, Achaia, Etoloakarnania). (University of Patras)

7.2.4 Theme: Renewable Energy

- High consumption of energy covered by renewable sources compared with average national. (Municipality of Campobasso)
- First photovoltaic installations in the AU of CB. (Municipality of Campobasso)

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- Formation of the first two energy communities in the AU of CB. (Municipality of Campobasso)
- Galicia's wind energy potential offers a sustainable energy transition opportunity. (AGADER)
- Renewable Energies, Local energy plans (BSC)
- National energy plans (BSC)
- New legislation for renewables (solar,...) in place (BSC)
- Support to innovative solutions in renewables (public, private sector) (BSC)
- Climate fund on national level supporting the renewable energies (BSC)
- Growing interest for renewables (not only at public sector) (BSC)
- Growing interest for ideas of energy communities (BSC9)

7.2.5 Theme: Transport and Mobility

- Sustainable mobility and support services in countryside Local sustainable mobility plans. (BSC8)
- Growing interest of inhabitants for cycling, walking. (BSC8)
- Growing number of shuttle transport (but now mostly for tourists in season). (BSC8)
- Growing number of bicycle paths. (BSC8)
- Improvement of railway infrastructure. (BSC8)
- Reduction of CO2 via first electrical buses and electric cars in ownership of public sector, SME s and inhabitants. (BSC8)
- Support to innovative solutions in sustainable mobility. (BSC8)
- Support to elderly via free public transport and volunteer support (via cars owned by local communities. (BSC8)
- Support to young (public buses from home to school). (BSC8)
- Support via National cohesion operational program for innovative mobility infrastructure, services. (BSC8)

7.2.6 Theme: Research and Innovation

- Research institutions with multidisciplinary expertise in geology, meteorology, environment, engineering, economics. (University of Patras)

7.3 General Theme: Social and Demographic

7.3.1 Theme: Population trends

- Wide acknowledgement of demographic challenges across partner regions. Interlinked issues such as ageing farmers, land and settlement abandonment, difficulties in new family formation and promoting the attractiveness to new residents and commuters are common especially in the more remote and peripheral parts.

7.3.2 Theme: Public Education

- Good educational level of the population. (Municipality of Campobasso)
- Good structure of schools (including higher, high schools) and 2 public faculties (organisational science, health) and private (EU law...). (BSC10)

7.3.3 Theme: Public Awareness, Engagement, Volunteerism and Civil society

- Demographic Challenge Acknowledgment: Public recognition of the demographic challenge is a strength, as it indicates potential support for action. (AGADER)
- Being well informed about the current environmental situation related to their activities in their region (12). (MeteoRomania NMA)
- Willingness to personally reduce the impact of climate change and dangerous natural phenomena by participating in afforestation/damming/greening actions (28) or purchasing eco-friendly means of transport (bicycles, scooters, hybrid/electric personal cars) (15). (MeteoRomania NMA)
- Growing dispute and support of NGOs and inhabitants to preservation of green areas (arable land, meadows) and strong civil coalition in some cases of attempt of additional urbanization (BSC7)

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- Strong identity and commitment of local inhabitants to preserve the nature and foster sustainable green development (BSC1)

7.3.4 Theme: Gender equality

- Female entrepreneurship: regional figure 32.6 percent vs. Italian 26.7 percent. (Municipality of Campobasso)

7.4 General Theme: Governance

7.4.1 Theme: Public Service Delivery and Staff availability

- Having the qualified staff with up-to-date knowledge necessary to meet environmental objectives (23). (MeteoRomania NMA)
- Public services are available also in countryside (sometimes with merging the separate services) or assuring at least partly service (like doctor once a week,...). (BSC8)

7.4.2 Theme: Good plans and legislation

- Good legislation to protect agriculture land, forests-
- Good national and area plans for forestry managements (BSC5)
- Good quality support to sustainable spatial planning also at national research organisations (University, Institute) (BSC7)
- Special support from national funds for border local communities that are in many cases affected by brain drain and ageing. (BSC8)
- Land Use: Good national spatial plans/local spatial plans. (BSC7)

7.4.3 Theme: Good plans and legislation

- Partially (17) and fully (11) using best practices. (MeteoRomania NMA)
- Profitable Sustainability: The potential for profitability in sustainable practices encourages adoption.

Weaknesses

7.5 General Theme: Environmental and Disaster Risk Management

7.5.1 Theme: Environmental policy, resources and waste management

- Not having enough facilities/equipment/ technology to ensure environmental neutral/positive activities (15). (MeteoRomania NMA)
- Local water supply > import needed due to little surface water (2.2). (Regional Association Neckar-Alb)
- Land taking and competition of land use > Decreasing open space due to settlement expansions boosts environmental pollution (2.9). (Regional Association Neckar-Alb)
- No plans existing for the mitigation of water – for agriculture purposes (BSC3)
- So far no plans for possibility of scarcity in water supply to human usage. (BSC3)

7.5.2 Theme: Disaster Risk Management, risk profile and adaptation to climate change

- Climate change and natural disasters (14). (MeteoRomania NMA)
- Population being personally affected to a great (16) or large (11) extent by drought, heatwave, prolonged frost, storms/tornadoes, floods, landslides (16). (MeteoRomania NMA)
- Decline and slow recovery of area affected by the 2007 wildfires Lack of recovery from past disaster events. (University of Patras).
- No hazard maps of heavy rain, floods for certain streams (only for bigger rivers) (BSC2)
- No actions done to mitigate heat waves (except in some local communities in urban areas (some restoration of the green areas) has been done (BSC4)
- No specific local measures in place to contribute to minimising the impacts of climate change for specific local areas which are specifically endangered by climate change (BSC1)
- Weaknesses: No hazard maps for landslides prepared – in place. (BSC2)
- So far no plans for heat waves prepared. (BSC4)

7.5.3 Theme: Biodiversity, Protected Area Status and ecosystem services

- Inefficient maintenance of the protected areas (2.1). (Regional Association Neckar-Alb)
- No management plans for Natura 2000 outside Triglav National park (although national management of Natura 2000 are assuring preservation of the biodiversity). (BSC1)
- Sensitivity of landscape – over 50 % of Natura; no bigger plants might be confirmed (due to decision of experts and/or civil groups movements). (BSC9)

7.6 General Theme: Economic and place-based development

7.6.1 Theme: Agriculture and Forestry

- Agricultural specialization on only few products can cause risk of failure (2.6). (Regional Association Neckar-Alb)
- Densification of population concluding to higher competitiveness and use of farmlands under spatial pressure (2.9). (Regional Association Neckar-Alb)
- Ageing farmers. (University of Patras)
- Fertile land cannot be replaced (due to scarcity of arable land) available mostly only in valleys (BSC7)
- In many parcels the low maintenance of the forests (logs lying idle, no reforestation after cut down of storms (since lack of working force in families, scarcity of traditional tree plants, no free plants are available...)) (BSC5)
- Farms have no employees (support only within family members), low interest of young to stay on farms (mostly they are looking for better income outside farming), big sums of funds are needed to modernise the production (BSC6)
- Pressure for urbanisation of agriculture land (especially for shops, production, public services) in semi urban areas and in countryside (BSC)
- So far forestry plans do not predict/plan change of the tree biodiversity in forests (new tree species need to be added). (BSC5)

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- So far new possible crops due to climate change. Change of crops can be seen only in rare research studies/tests. (BSC6)

7.6.2 Theme: Regional growth, employment and business development

- Profitability Hurdles: Challenges in making sustainable practices profitable hinder adoption. (AGADER)
- Undefined Rural Areas: Territorial complexity and Galician lack of clear rural definitions complicate addressing specific needs. (AGADER)
- Conflict Over Modes: Coexisting traditional and post productivist approaches create internal conflicts. (AGADER)
- Housing Accessibility: Inaccessible rural housing contributes to depopulation. (AGADER)
- Few and/or poorly paid jobs (24). (MeteoRomania NMA)
- Labour migration to big cities and/or other countries (28). (MeteoRomania NMA)
- Lower income region. (University of Patras)
- In some areas, especially in the countryside, is even more difficult to get qualified workers from other regions (a little bit easier in cities). (BSC10)
- Rather Long wait for approval of foreign workers (like knowledge of language, recognition of diplomas,...) (BSC10)
- So far no special plans for attractiveness of young skilled workers /no specific support mechanisms. (BSC10)

7.6.3 Theme: Culture

- There is reference to world heritage sites (Olympia and Apollo temple) in Western Greece facing the effects of climate change, including exposure to natural hazards and wildfires.
- Protection of Cultural heritage assets such as monuments, and festivals facing decline and abandonment is a significant theme in some rural development initiatives (e.g. Campobasso).

7.6.4 Theme: Renewable Energy Sources

- Region suitable only for solar plants, hydro power plants already in place, no windmills possibility. (BSC9)
- Long wait for approval for installation of Renewable Energy Sources (not enough grid infrastructure) in some places. (BSC9)
- So far, no regional plan for renewables. (BSC9)
- So far, no study for energy communities on regional level prepared. (BSC9)

7.6.5 Theme: Transport and Mobility

- Deficient transport infrastructure and public utilities (17). (MeteoRomania NMA)
- Low offer and accessibility for environmentally friendly mobility in rural regions for every age group and long distances (2.10). (Regional Association Neckar-Alb)
- Lack of alternative mobility options, young people move away to larger cities due to lacking public commuting options (2.10). (Regional Association Neckar-Alb)
- So far no regional sustainable mobility plan prepared. (BSC8)

7.6.6 Theme: Research and Innovation

- The lack of adequate Research and Innovation resources focusing on rural areas and practices for revitalisation of rural space is considered a weakness.

7.7 General Theme: Social and Demographic

7.7.1 Theme: Population trends

- Rural Depopulation: Ongoing rural depopulation poses economic and social challenges. (AGADER)
- Demographics are characterized by: Severe depopulation and gradual population, decline especially of young population and decreasing incidence of young couples with children. (Municipality of Campobasso)
- Very large elderly class. (Municipality of Campobasso)
- Population ageing and depopulation (28). (MeteoRomania NMA)
- Social disadvantage and poverty in rural areas. (University of Patras)

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- Youth flight and rural exodus. (University of Patras)

7.7.2 Theme: Public Education

- Education: Lack and low quality of functional endowments and learning environment (cafeteria service, endowments for sports activities, building vulnerability, mobile students, full time learners, disabled assistance). (Municipality of Campobasso)
- School dropouts: Pietracupa 33.3%, (more than double the national average). (Municipality of Campobasso)
- NEET: Pietracupa 38.5% (national average 22.5%). (Municipality of Campobasso)
- Adults with a high school diploma or degree: Fossalto 39.8% (national average 55.1%). (Municipality of Campobasso)
- College educated youth: Fossalto 15.1% (national average 23.2%). (Municipality of Campobasso)

7.7.3 Theme: Public Awareness, Engagement, Volunteerism and Civil society

- Perception of Climate Change Impact: Galicia currently lacks widespread recognition as a territory significantly affected by climate change. This lack of awareness could potentially lead to increased vulnerability as climate change impacts become more pronounced in the future. (AGADER)
- Growing of awareness and lack of action about environmental risks (2.4). (Regional Association Neckar-Alb)
- Still civil society does not have enough power to have bigger success in mitigation between capital and preservation of land (in favour of preservation of land). (BSC7)

7.7.4 Theme: Gender equality

- Though not explicitly referred to in the SWOT, gender imbalances present a weakness in the social structures in rural areas.

7.8 General Theme: Governance

7.8.1 Theme: Public Service Delivery and Staff availability

- Poor quality of educational, medical, social services (24). (MeteoRomania NMA)
- When services for daily needs disappear, inner cities degenerate, people move away and elderly who are not mobile anymore cannot take care of themselves (2.10). (Regional Association Neckar-Alb)
- Shortage of staff in local government in departments of environment, civil protection, agriculture and development. (University of Patras)
- So far no regional plan for replacement of public services /how to mitigate the loss of viability of certain countryside settlements was prepared. (BSC8)

7.8.2 Theme: Good plans and legislation

- Regulatory Complexities: Regulatory challenges, including Natura 2000 and land ownership, hinder sustainable development according to different stakeholders. Some stakeholders perceive Natura 2000 as too restrictive, impacting territory revitalization. (AGADER)
- Bureaucratic processes. (University of Patras)
- Weak planning and environmental management norms. (University of Patras)
- Too little support to local communities with brain drain and elderly population (BSC)
- So far no regional spatial plan prepared. (BSC7)
- Low interest of policy to tackle the challenges of separate settlements (due to growth in other settlements and cities). (BSC8)

7.8.3 Theme: Adoption of Best practices

- Lack of adoption of process and practice improvement including adoption of new practices is considered a weakness.

Opportunities

7.9 General Theme: Environmental and Disaster Risk Management

7.9.1 Theme: Environmental policy, resources and waste management

- EU projects/funds would help to increase their environmental contribution (28). (MeteoRomania NMA)
- Recycling in the region underperforms the Italian average. (Municipality of Campobasso)
- Possible measures for irrigation to save water supply (2.2). (Regional Association Neckar-Alb)
- Lack of urban green space (Municipality of Campobasso)

7.9.2 Theme: Disaster Risk Management, risk profile and adaptation to climate change

- Receiving help if they were to suffer material and/or human damage as a result of an environmental risk from regional/national authorities (28) and local authorities (22). (MeteoRomania NMA)
- Risk prevention management and heavy rain hazard maps (2.3). (Regional Association Neckar-Alb)
- High risk associated with natural disasters. (Municipality of Campobasso)
- Increasing policy attention to the need for reorganisation of Disaster Risk Management and Civil Protection. (University of Patras)
- Hazard maps to be prepared (landslides, heavy rain for smaller streams). (BSC2)
- Plans for mitigation of shortage of water (upgraded within public utility plans) Plans and actions in the field of mitigation of water – for agriculture purposes. (BSC3)
- Plans for heat waves with concrete actions. (BSC4)

7.9.3 Theme: Biodiversity, Protected Area Status and ecosystem services

- Management plans for Natura 2000 outside Triglav National Park. (BSC1)

- Specific measure for endangered flora/fauna (BSC1)

7.10 General Theme: Economic and place-based development

7.10.1 Theme: Agriculture and Forestry

- Agriculture Tourism Synergy: Aligning agriculture and tourism sectors can create collaborative growth. (AGADER)
- Orchard management and Sheep farming on the Swabian Alb preserves nature and prevents environmental risks (2.7). (Regional Association Neckar-Alb)
- Change of vegetation period can bring new agriculture products to mid European latitudinal lines (2.6). (Regional Association Neckar-Alb)
- State of maintenance in private owned forests (2.5). (Regional Association Neckar-Alb)
- Organic farming (26). (Regional Association Neckar-Alb)
- Plans for management of forests will include operational plans on how and in which way new tree species can be added and how traditional ones can be better exploited. (BSC5)
- Plans for preservation not only of forestry but also wood industry should be upgraded with additional support for innovative products, services: (BSC5)
- Climate change and longer vegetation can bring opportunities for new crops and new market niches like chili, new kind of fruit (asimina...) (BSC6)

7.10.2 Theme: Regional growth, employment and business development

- Market Demand for Sustainability: Stimulating market demand for sustainable products can drive adoption (AGADER)
- Promoting Sustainability: Supporting sustainable activities can foster economic growth and habitability. (AGADER)
- Economic Momentum through Climate Action: Climate change adaptation and mitigation measures may generate new economic momentum, particularly in rural territories. (AGADER)

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- Industrial decarbonisation: an opportunity for the transformation of the Galician economy. (AGADER)
- Energy consumption of industry very high. (Municipality of Campobasso)
- Growing trend for year-long tourism. (University of Patras)
- Special plans for attractiveness of young skilled workers / specific support mechanisms organised employment fairs in some countries in EU, outside EU. (BSC10)
- Trademarks supported by local communities are supporting the innovative solutions connected also to climate change (new products...). (BSC6)

7.10.3 Theme: Culture

- Although not explicitly mentioned in the SWOT, opportunities exist in the management of cultural assets, through conservation, destination management tools, incorporation in rural revitalisation strategies, reuse and redevelopment initiatives and revival of cultural assets such as festivals and community traditions.

7.10.4 Theme: Renewable Energy

- Renewable Energy Transition: Leveraging wind energy potential aids in a sustainable energy transition. (AGADER)
- Renewable sources have less share than Italian average. (Municipality of Campobasso)
- No district heating and cooling systems, zero smart grid and grid edge solutions and only 33 medium and small storage systems size in all of Molise. (Municipality of Campobasso)
- Municipality energy consumption high. (Municipality of Campobasso)
- Preparation of regional plan for renewables. Preparation of study for energy communities on regional level prepared. (BSC9)

7.10.5 Theme: Transport and Mobility

- Local mobility projects like the Regional Stadtbahn and civic buses Environmentally friendly energy production generates added value and improved economic basis of rural areas (2.11). (Regional Association Neckar-Alb)
- Reduce the environmental impact of public transport especially in rural areas is key (210). (Regional Association Neckar-Alb)
- Regional sustainable mobility plan with concrete actions to improve sustainable mobility with special emphasis on settlements with brain drain/elderly. (BSC8)

7.10.6 Theme: Research and Innovation

- Rewarding Innovation: Administrations can reward innovative and sustainable initiatives. (AGADER).
- Technological advances in AI, transportation, precision agriculture. (University of Patras)
- Innovative young farmers in strategic partnerships already working together develop innovative solutions and attract other young farmers to ecological farming and other innovation on farms (BSC6)

7.11 General Theme: Social and Demographic

7.11.1 Theme: Population Trends

- The main factors that could cause a population increase in rural areas are urban agglomeration (22) and increase in utility costs (22). (MeteoRomania NMA)

7.12 Theme: Public Education

- Many initiatives private and public, offer environmental education services (23). (Regional Association Neckar-Alb)

7.12.1 Theme: Public Awareness, Engagement, Volunteerism and Civil society

- Perceiving climate change as dangerous and recognizing the need to intervene in its prevention (29). (MeteoRomania NMA)

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- Voluntary support to elderly. (BSC8)

7.12.2 Theme: Gender equality

- Although not explicitly mentioned in the SWOT, measures to promote gender equality can be an important contributor to rural revitalisation strategies.

7.13 General Theme: Governance

7.13.1 Theme: Public Service Delivery and Staff availability

- Special development approaches to maintain public services with actions to better address the brain drain and ageing. (BSC8)

7.13.2 Theme: Good plans and legislation

- LEADER groups/fund specifically addressing brain drain, ageing. (BSC8)
- Better legislation could support them in the activities they carry out that can contribute to climate change adaptation of the sector in which they operate (22). (MeteoRomania NMA)
- Measures active or to be activated from other funding sources and grants such as: PNRR, Incentives for female entrepreneurship, funds for the establishment of new businesses in Southern Italy by young entrepreneurs, funding for innovative projects, grants for re-employment, research and development tax credit, research and innovation, calls to combat school dropout and dropout. (Municipality of Campobasso)
- Lack of synergies and coordination among municipalities. (Municipality of Campobasso)
- Lack of interest in green solutions given other more pressing priorities. (Municipality of Campobasso)
- Funding opportunities through the ROP, LEADER and RRF (University of Patras)
- Operational program for agriculture and forestry support innovative practices (from research to farmers), support young farmers and innovation. (BSC6)

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- Change in national legislation to prevent further spreading of the urban sprawls on farmland (as experiences shows in EU (allowing buildings within existing limits of the city, settlement). (BSC7)
- Regional spatial plan (BSC)

7.13.3 Theme: Adoption of Best practices

- Open Spatial data provides opportunities for better understanding and finding solutions to depopulation and risk management. (University of Patras)
- Specific programs for young – for empowerment, entrepreneurship. (BSC8)
- Special programs to attract youth in countryside (also with possibility to find innovative solutions for settlements in need (also cooperation between university students – inhabitants). (BSC10)

Threats

7.14 General Theme: Environmental and Disaster Risk Management

7.14.1 Theme: Environmental policy, resources and waste management

- Groundwater depletion (21). (MeteoRomania NMA)
- Declining groundwater (2.2). (Regional Association Neckar-Alb)
- Soil degradation, erosion (19). (MeteoRomania NMA)
- Soil erosion and landslides at the steep slopes of the Swabian Alb (2.3). (Regional Association Neckar-Alb)
- Higher demands on catchment areas and storage volumes and nutrient management need due to changing precipitation phases (2.6). (Regional Association Neckar-Alb)
- Dry periods leading to higher evaporation rate and increase erosion and water demand (2.0). (Regional Association Neckar-Alb)
- Environmental losses and damages. (University of Patras)
- Growing numbers of the unforeseen weather events (e.g. storms) (BSC5) (BSC6)

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- Further yearly heavy rains and floods (especially in hilly and mountain areas) with high speed of water bearing also logs and other heavy materials) destroying infrastructure and settlements) where so far such event didn't take place. (BSC2)
- Further droughts and future possibilities to have scarcity of water supply. (BSC3)
- Further loss of ground water (no possibility for watering of the crops) due to low ground water. (BSC3)

7.14.2 Theme: Disaster Risk Management, risk profile and adaptation to climate change

- Droughts (32). (MeteoRomania NMA)
- Climate change induced weather instability threatens honey production in Galician rural areas. (AGADER)
- Impacts of extreme weather events. (University of Patras)
- Elderly people are highly affected by environmental changes and increasing heat (2.4). (Regional Association Neckar-Alb)
- Storm like downpours can lead to dramatic flooding anywhere in the region (2.3). (Regional Association Neckar-Alb)
- Tropical nights, drought. (Regional Association Neckar-Alb)
- Increasing danger of wildfires (2.5). (Regional Association Neckar-Alb)
- Increased danger for health of population (especially elderly). (BSC4)
- Further increase of heat waves. (BSC4)
- Further deterioration of the land and settlements with floods and landslides. (BSC2)

7.14.3 Theme: Biodiversity, Protected Area Status and ecosystem services

- Endangered and invasive species, increasing health risks (2.1). (Regional Association Neckar-Alb)
- Change of vegetation period causes damage and problems (2.6). (Regional Association Neckar-Alb)
- Habitat loss. (University of Patras)

- Change of biodiversity in forests (tree species) affecting also other plants, animal biodiversity. (BSC5)
- Change of biodiversity of arable land and meadows (low biodiversity due to monoculture...). (BSC6)
- Biodiversity crisis. (University of Patras)
- Climate change will bring Change of biodiversity of arable land and meadows (further change of categorisation of land). (BSC7)
- Further abandonment of land usage of owners in the long run – change of traditional landscape patterns (loss of biodiversity). (BSC7)

7.15 General Theme: Economic and place-based development

7.15.1 Theme: Agriculture and Forestry

- Climate Change Uncertainty: Potential impacts of climate change on forests may pose future threats. (AGADER)
- Ageing owners of forests, small parcels of land (almost no big real estates). (BSC5)
- Ageing owners of farms (over 55 years old), small parcels of land (almost no big real estates). (BSC6)
- Partially poor conditions of forests and tree population, forest damage (2.5)
- Heavy rain and hail damages infrastructure and agriculture (2.6). (Regional Association Neckar-Alb)
- Growing number of pests, diseases in crops (especially in droughts, after heavy rain...). (BSC6)
- Crisis in EU lower viability of economy. (BSC10)
- Climate change will bring huge damages in forests, therefore owners in a long run will not have interest to maintain, renew forests or roads in forests; low income will bring also lower possibility for usage of modern technology in forests). (BSC5)
- Climate change will bring huge damages in arable land and its crops, in meadows, therefore owners in a long run will not have interest to maintain, renew production; low income will bring also lower possibility for usage of modern technology in agriculture land. (BSC6)

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- Growing number of pests, diseases in forests (already 60 % of forests are affected by pests, diseases in the region). (BSC5)
- Growing urbanisation pressure (on farmland). (BSC7)

7.15.2 Theme: Regional growth, employment, and business development

- Sectors Incompatibility: Conflicts between agriculture, tourism, wind energy, urban policies, and Natura 2000 may threaten rural communities. (AGADER)
- Resource Export vs. Local Impact: Resource exporting projects may not benefit local communities. (AGADER)
- Economically relevant sectors such as clam and mussel production are threatened by rising ocean temperatures.
- Lower financial income (23). (MeteoRomania NMA)
- Necessity of hiring new staff (12). (MeteoRomania NMA)
- Low incidence of productive specialization in high tech sectors (among the threats as representative of the propensity of the system that shows a certain "resistance" to change on aspirations to reap rewards in the new employment basins of research, digital and ecological transition). (Municipality of Campobasso)
- Inflation in goods and raw materials especially in rural areas, energy and food costs. (University of Patras)
- Skilled worker shortage due to demographic change resulting in economic decline (2.12). (Regional Association Neckar-Alb)
- No solutions prepared – in place for heat waves in settlements. (BSC4)
- Increasing incidents of heavy rain, drought, storms. (BSC6)
- consequence of lower categorisation: quicker way to urbanisation. (BSC7)
- Loss of markets in EU and other markets. (BSC10)
- Loss of viability of companies due to shortage of workers. (BSC10)

7.15.3 Theme: Culture

- Cultural loss. (University of Patras)

7.15.4 Theme: Renewable Energy

- Local Community Conflicts: Local conflicts over wind energy projects need dialogue. (AGADER)
- Non availability of support via climate fund for renewables due to big flood damage this year (over 80 % of local communities in the state were affected). (BSC9)
- Lack of interest from private sector, inhabitants due to high costs to install renewables. (BSC9)

7.15.5 Theme: Transport and Mobility

- Although not explicitly mentioned in the SWOT transport and mobility services and infrastructure are facing increasing risks of being cut off, due to funding limitations, lack of feasible private modes of provision and also due to the increase of extreme weather phenomena damaging road and rail infrastructures.

7.15.6 Theme: Research and Innovation

- Low incidence of Research and Development Expenditure: 0.34 percent of Public Expenditure. (Municipality of Campobasso)

7.16 General Theme: Social and Demographic

7.16.1 Theme: Population Trends

- Ageing population in rural areas (27). (MeteoRomania NMA)
- Ageing orchard meadow managers and shepherds can't preserve the Swabian Alb cultural heritage due to lacking succession (demographic change) (2.7). (Regional Association Neckar-Alb)
- Further ageing and further loss of young generation in some settlements; therefore slow dying of the settlements and abandonment of the farming and settlements. (BSC8)
- Further ageing – not being able to attract young workers from other regions/states. (BSC10)

7.16.2 Theme: Public Education

- The lack of attention to issues of rural depopulation, climate change and environmental hazards can be a potential threat to rural development and revitalisation.
- Although not explicitly discussed in the SWOT reports, worsening provision of educational infrastructure in rural areas especially for younger children is a factor potentially affecting young families in rural areas.

7.16.3 Theme: Public Awareness, Engagement, Volunteerism and Civil society

- Though not explicitly referred to in the SWOT reports, declining public interest and awareness in civic affairs, individualistic behaviour and social isolation, constitute a major threat to rural resilience and revitalisation efforts.

7.16.4 Theme: Gender equality

- Increasing gender imbalances are a threat to social structure in rural areas.

7.17 General Theme: Governance

7.17.1 Theme: Public Service Delivery and Staff availability

- Increased administration burden (20). (MeteoRomania NMA)
- Further loss of viability of certain countryside settlement and therefore even less public transport available and less public services available. (BSC8)

7.17.2 Theme: Good plans and legislation

- Land Ownership Challenges: Unknown land ownership complicates land use planning. (AGADER)
- Regulatory Barriers: Excessive regulations can hinder development. (AGADER)

7.17.3 Theme: Adoption of Best practices

- Insufficient rate of innovation in the production system. (Municipality of Campobasso)

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Annex II. Analysis of good practices and proposals for improvement

1.1 Analysis of good practices by region and topic

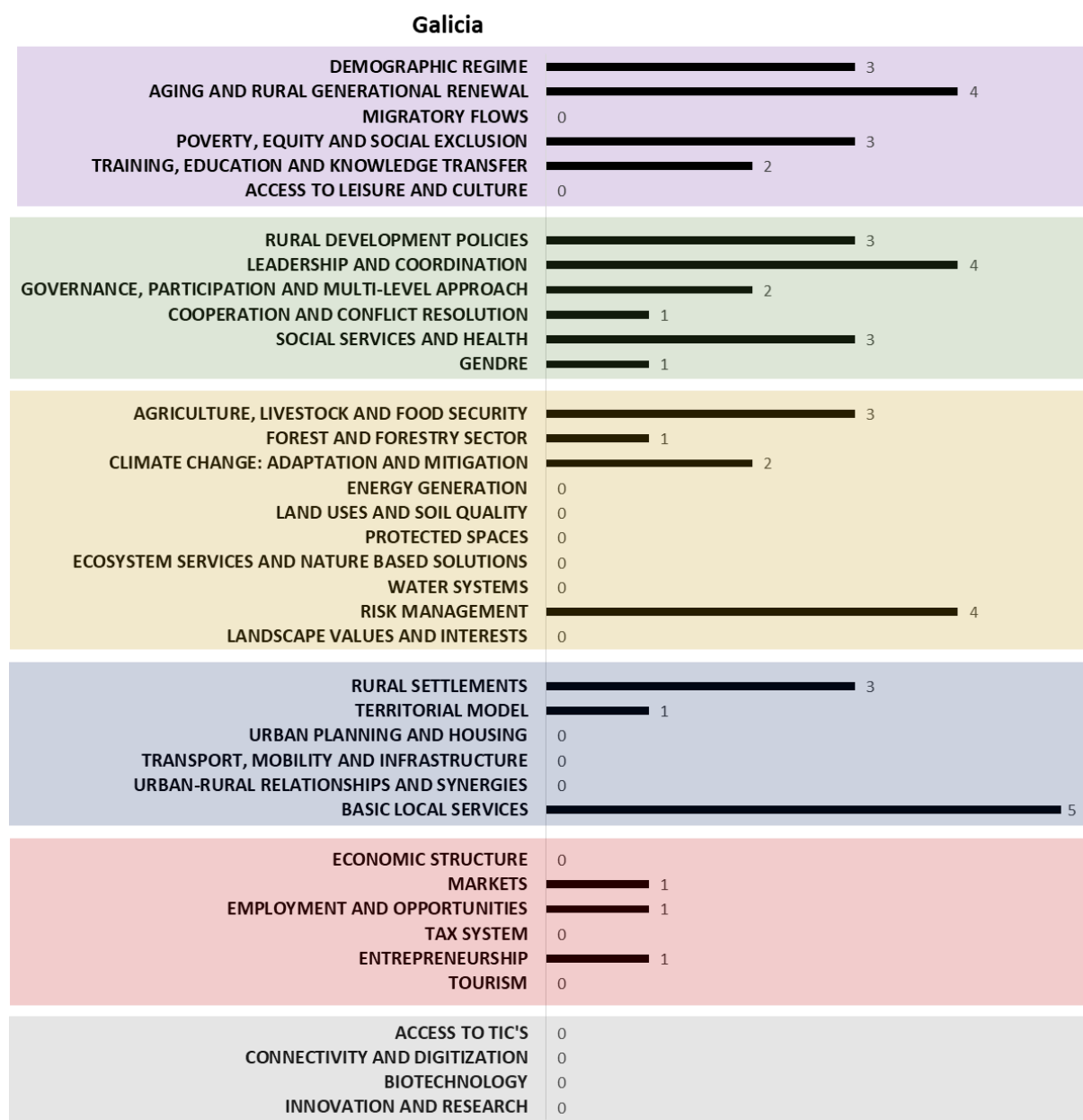
7.17.4 Galicia

The good practices identified in the region of Galicia are:

- **GP 01-Penedo model village:** a policy tool to promote sustainable land management of abandoned lands of high productive capacity located in or around an abandoned settlement. The objective is curbing depopulation, boosting economic activity and reducing the risk of fires.
- **GP 02-Nest-homes:** the good practice addresses the lack of basic childcare services in rural areas affected by depopulation by supporting the creation of Nest homes in rural municipalities.

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Table 3 Total number of times that the different topics and factors appear in the good practices identified in Galicia



The region of Galicia focuses its good practices on the links between Environment (13), Politics (13) and Society (12). The selected good practices focus their activity on improving the conditions of rural life, both from an environmental point of view, through territorial management (9) of abandoned areas, and from a social point of view, with initiatives that ensure local welfare services.

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The new Galician legislation relating to the recovery of agricultural land includes the Model villages instrument as a means to address depopulation and the subsequent territorial abandonment, seeking to also promote resilience against forest fires.

On the other hand, the Nest homes offer a basic service to local rural communities that allows family reconciliation and population retention.

These topics covered in the Galician good practices are also reflected in the SWOT analysis of the region, as shown in table 4.

Table 4 Extract from Galicia's SWOT analysis

Strengths	<p>Demographic Challenge Acknowledgment: Public recognition of the demographic challenge is a strength, as it indicates potential support for action.</p> <p>Diverse Rural Environment: A diverse rural environment supports various initiatives catering to different needs.</p> <p>Community-Driven Fire Reduction: Grassroots forest management initiatives reducing forest fire severity demonstrate community-driven and nature-based solutions.</p>
Weaknesses	<p>Undefined Rural Areas: Territorial complexity and Galician lack of clear rural definitions complicate addressing specific needs.</p> <p>Rural Depopulation: Ongoing rural depopulation poses economic and social challenges.</p>
Opportunities	<p>Market Demand for Sustainability: Stimulating market demand for sustainable products can drive adoption.</p>
Threats	<p>Land Ownership Challenges: Unknown land ownership complicates land use planning.</p> <p>Climate Change Uncertainty: Potential impacts of climate change on forests may pose future threats.</p> <p>Resource Export vs. Local Impact: Resource-exporting projects may not benefit local communities.</p>

The main components of the SWOT that connect directly with the topics covered in the good practices are those linked to depopulation and the abandonment of the territory,

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with the problems that these involve from an environmental point of view. The management of the territory through the maintenance of agroforestry activity and the offer of basic services to citizens are presented as part of the solutions to Galician rural challenges.

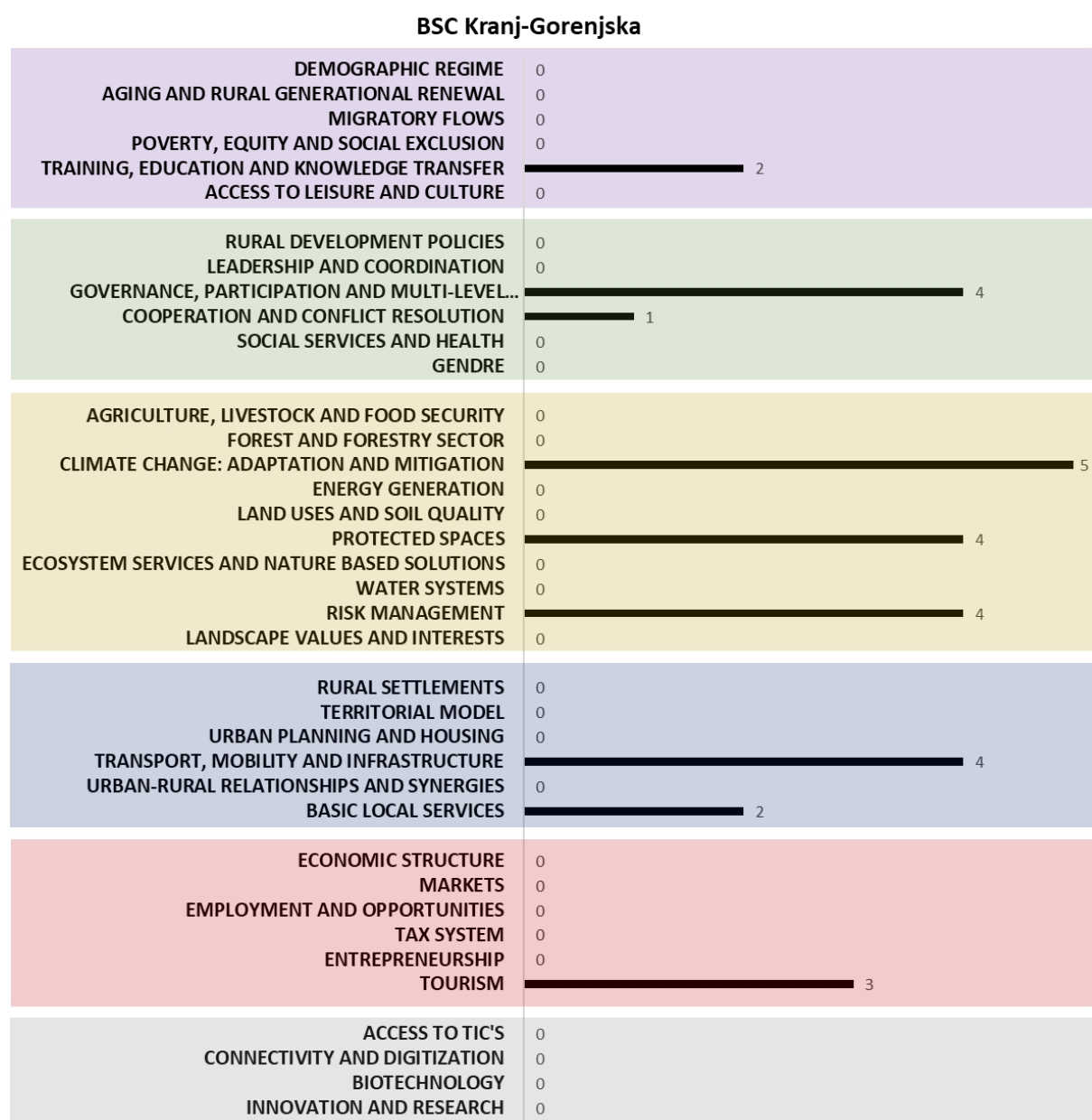
7.17.5 Gorenjska (Slovenia)

The good practices identified in the region of Gorenjska are:

- **GP 01–Triglav National Park, Bio Reserve Area:** actions to promote sustainable mobility (including reduction of the areas accessible by car) and definition of quiet areas where visitors cannot access the nature in Triglav National Park.
- **GP 02 – Zelenica Environment:** the premises of ski resort (hut) was changed into the sustainable green centre promoting green practices in mountain environment with upgrading the sensitivity of the visitors also for climate change.

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Table 5 Total number of times that the different topics and factors appear in the good practices identified in Gorenjska



The Slovenian region of Gorenjska provides examples of good practice focusing on the environmental component. The most recurring factors linked to that environmental topic are: Climate change: adaptation and mitigation (5), Protected areas and environmental conservation (4), and Risk management (4).

Other recurrent themes are Territory and Policies, because the selected good practices correspond to the implementation of sustainable mobility models in the Zelenica area

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and risk management (snow avalanches) in the Triglav National Park. Governance, public participation and multi-level approach factors are present (4) and the practices are directly linked to Transport, mobility and infrastructure (4). The orientation towards Tourism (3) is also relevant, especially in protected areas.

These topics covered in the good practices from Gorenjska are also reflected in the SWOT analysis of the region, as shown in table 6.

Table 6 Extract from Gorenjska's SWOT analysis

Strengths	<p>High level of awareness about the challenges of climate change at political level, among experts and by the general public.</p> <p>Consensus at all levels of society on the importance of protecting nature, biodiversity and Natura 2000 areas.</p>
Weaknesses	<p>Very few climate change adaptation measures implemented.</p> <p>Almost no comprehensive climate change adaptation policy at the regional/local level.</p>
Opportunities	<p>Adaptation to climate change of economic agents: green transformation of production/services.</p> <p>Policy changes to support the green transition.</p>
Threats	<p>Natural disasters caused by climate change, which hinder the prosperity of society.</p> <p>Economic sector heavily affected by climate change: need to relocate production/services.</p> <p>Tourism sector: adaptation to the green transition too slow - fewer visitors.</p>

There is a direct correlation between the aspects dealt with in the general SWOT and the themes and factors referred to in the descriptions of good practices for the aspects linked to climate change and green transformation. Risk management, another prominent factor in the good practices, is indirectly addressed in the SWOT analysis. Sustainable mobility and governance are not mentioned directly in the general SWOT despite being very relevant in the good practices.

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Gorenjska's local report includes various thematic SWOT analyses that do correspond to the topics and factors covered in the good practice: Biodiversity and Natura 2000 Areas, risk management, sustainable mobility and support services in rural areas, as well as other topics such as renewable energy, land use, agriculture or demographics, have their own SWOT.

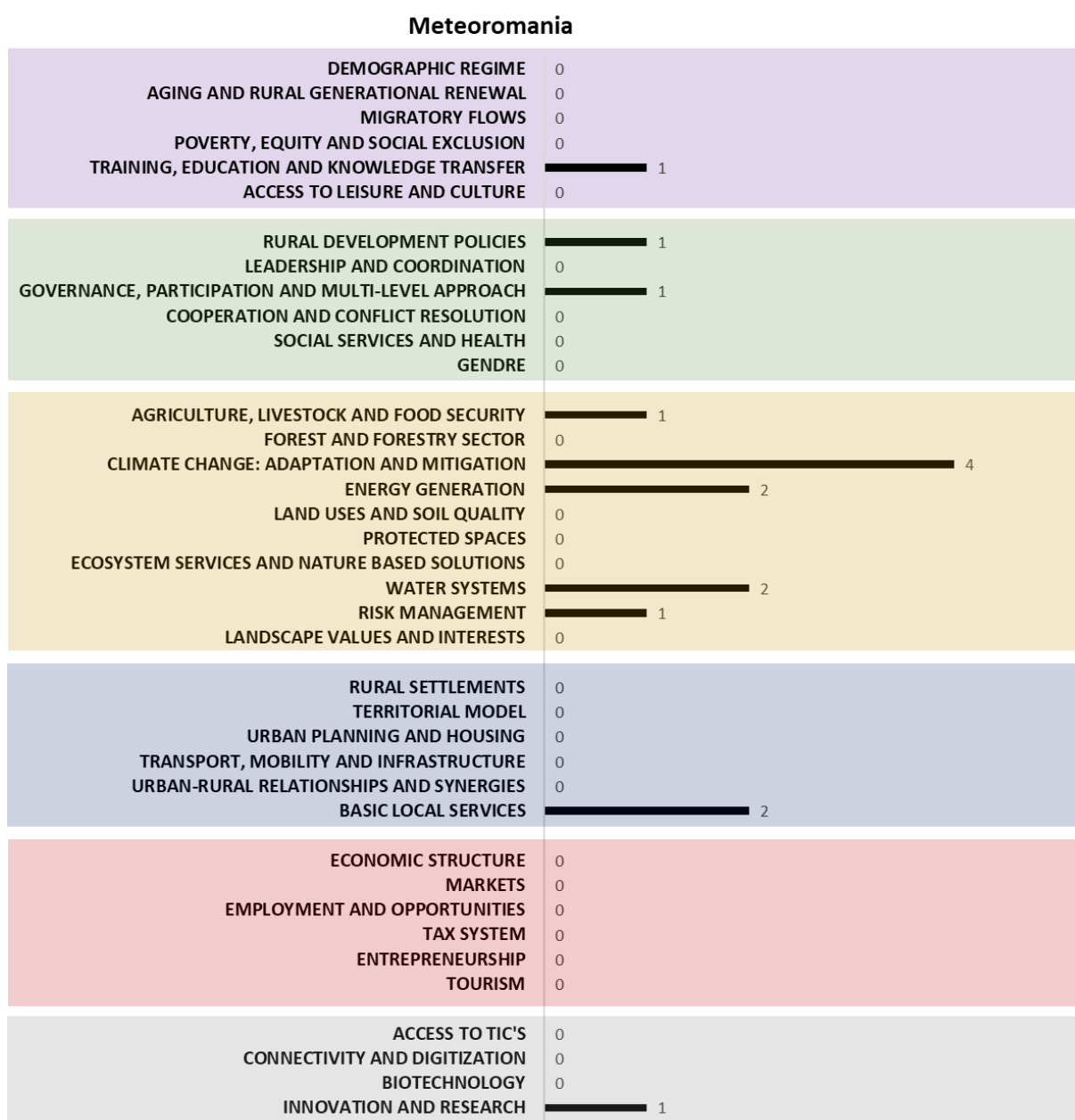
7.17.6 Romania

The good practices identified in Romania are:

- **GP 01–Increasing energy efficiency of three public buildings in Sibiu and Târgu Mureş:** implementing pilot project for vulnerable sectors “energy” and “infrastructure/construction/urban planning” in public buildings, to adapt to climate change.
- **GP 02–Guidelines for adapting agricultural technologies to climate changes (CC) in the Region 7 Centre:** the guide includes the analysis of CC observed in the Region 7 Centre, and the measures/recommendations for adapting the agricultural technologies to CC.

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Table 7 Total number of times that the different topics and factors appear in the good practices identified in Romania



The Romanian good practices focus on energy efficiency and climate change, paying special attention to sub-themes linked to these central aspects. The issues related to Environment are the most recurrent. In particular: Climate change: adaptation and mitigation (4), followed by Energy (2) and Water Systems (2).

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Other prominent factors, aligned in other themes, are Governance, public participation and multi-level approach (2) and Basic local services (2). These are directly linked to the management of the proposed cases.

These topics covered in the Romanian good practices are also reflected in the SWOT analysis of the region, as shown in table 8.

Table 8 Extract from Romania's SWOT analysis

Strengths	<p>Willingness to personally reduce the impact of climate change and dangerous natural phenomena.</p> <p>Using best practices.</p> <p>Being well informed about the current environmental situation related to their activities in their region.</p>
Weaknesses	<p>Not having enough facilities/equipment/ technology to ensure environmental neutral/positive activities.</p> <p>Being personally affected to a great or large extent by drought, heatwave, prolonged frost, storms/tornadoes, floods, landslides.</p> <p>Main causes of the depopulation of rural areas, such as: labour migration, population aging, poor quality of educational, medical, social services, deficient transport infrastructure and public utilities.</p> <p>Main problems facing rural areas: labour migration, population aging, poor quality of educational, medical, social services, climate change and natural disasters.</p>
Opportunities	<p>Perceiving climate change as dangerous and recognizing the need to intervene in its prevention.</p> <p>Willingness to support new national/EU and local/regional policy instruments or plans.</p>
Threats	<p>Main environmental/climate risks that they have dealt with: droughts, groundwater depletion, soil degradation, erosion, ageing population in rural areas.</p>

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The fundamental thematic line focuses on the challenges arising from climate change and the development of crosscutting policies for its adaptation and mitigation. This requires contributions from all institutional, social and economic levels that operate in rural areas.

The good practices selected are illustrative of the situation expressed in the SWOT, partially corresponding to aspects collected in it, although there are relevant themes in the SWOT not linked to the practical examples.

To sum up, the relationship between the results of the SWOT analysis and the topics addressed by the good practices shows a deep relationship with the environmental aspects and especially with everything linked to climate change.

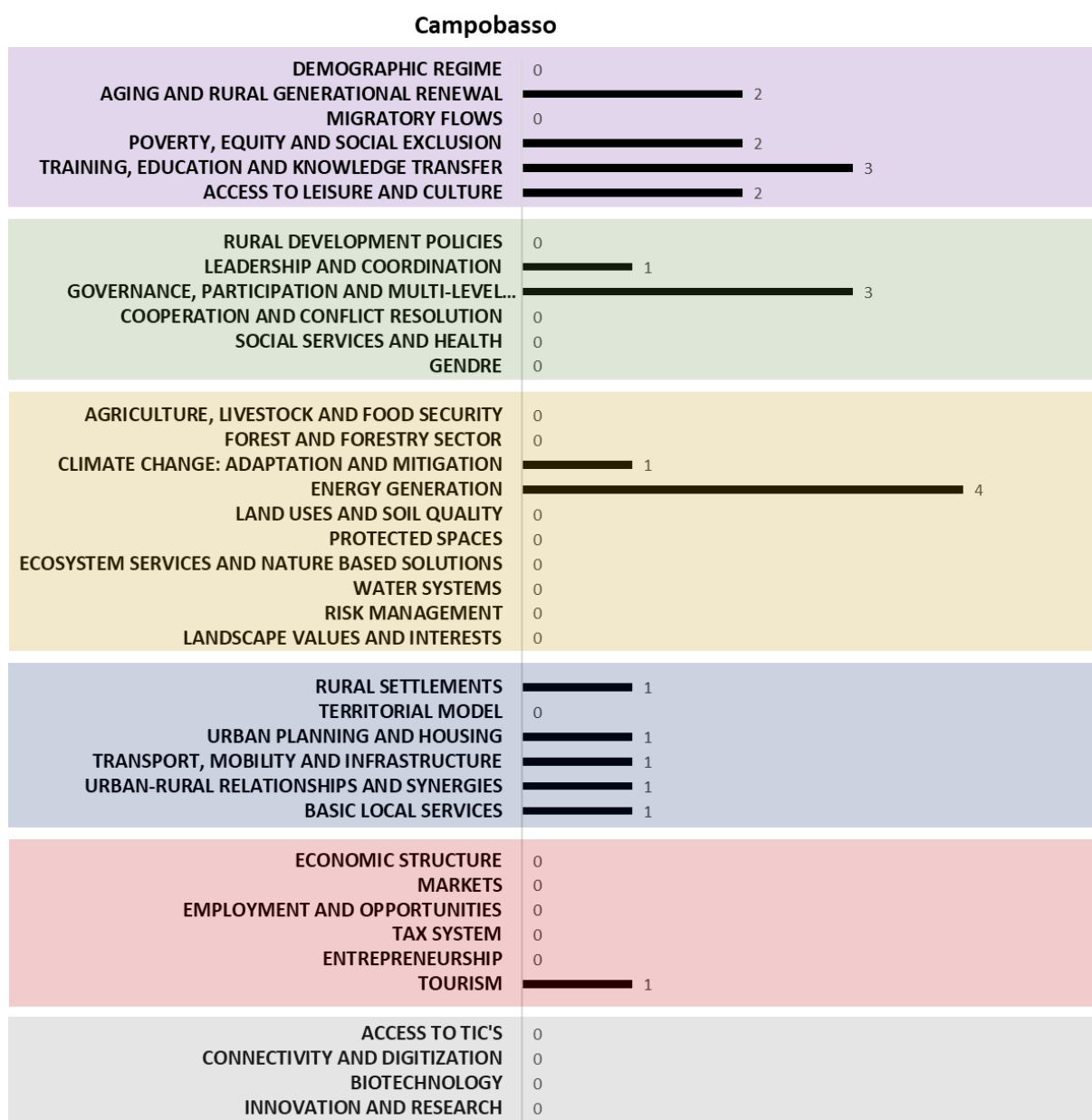
7.17.7 Municipality of Campobasso (Italy)

The good practices identified in Campobasso are:

- **GP01–Officine Sociali La Faglia:** the good practice is about social regeneration, an old, abandoned building was renewed with the help of the citizen to establish a social cultural space.
- **GP02–Energetic Community Miracer Mirabello Sannito:** the good practice relates to the energy efficiency of buildings and the creation of an energy community for on-site consumption of energy produced by renewable energy plants

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Table 9 Total number of times that the different topics and factors appear in the good practices identified in Campobasso



The good practices selected by the municipality of Campobasso fall broadly within the theme of Society (9), followed by Environment (5) and Territory (5). One of the good practices is an energy community, making Energy (4) the factor that appears more often.

The greatest wealth in terms of number of subjects covered is found in the social field, particularly in relation to the good practice of the socio-cultural centre of La Faglia, which is linked to the factors Training, education and knowledge transfer are mentioned (3);

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Access to leisure and culture (2); Aging, generational renewal and population fixation (2) and Equity and social exclusion (2).

In this case, the SWOT is the result of a consultation process developed with local and regional stakeholders of various profiles. The general conclusion is that in relation to the challenges of environmental resilience in rural areas, the two fundamental issues to be addressed are depopulation/aging of the population and aspects related to climate change.

These topics covered in the Italian good practices are also reflected in the SWOT analysis of the region, as shown in table 10.

Table 10 Extract from Campobasso's SWOT analysis

Socio-economic SWOT	
Strengths	Good educational level of the population.
Weaknesses	Severe depopulation and progressive decline of young population. Absence or low quality of functional endowments.
Opportunities	Active measures and funding resources.
Threats	Insufficient innovation in the production system. Low spending on research.
Green energy and sustainability SWOT	
Strengths	High implementation of renewable energies and practical demonstrative examples.
Weaknesses	High energy consumption in both industry and public administration. Lack of interest in the implementation of green solutions.
Opportunities	Possibilities of public-private collaboration for energy efficiency interventions.
Threats	Rapid advances in energy technology can make the environment less competitive.

Changing policies can affect the economic viability of green energy projects.

The great variety of thematic factors discussed in the examples of good practices of the municipality of Campobasso is in line with the outcomes of the SWOT analysis. The difficulty lies in the fact that most of the aspects described in the SWOT relate the regional to the national level in terms of the environment, demography, employment and other general issues. That is to say, they refer to a scale of analysis higher than the municipality of Campobasso.

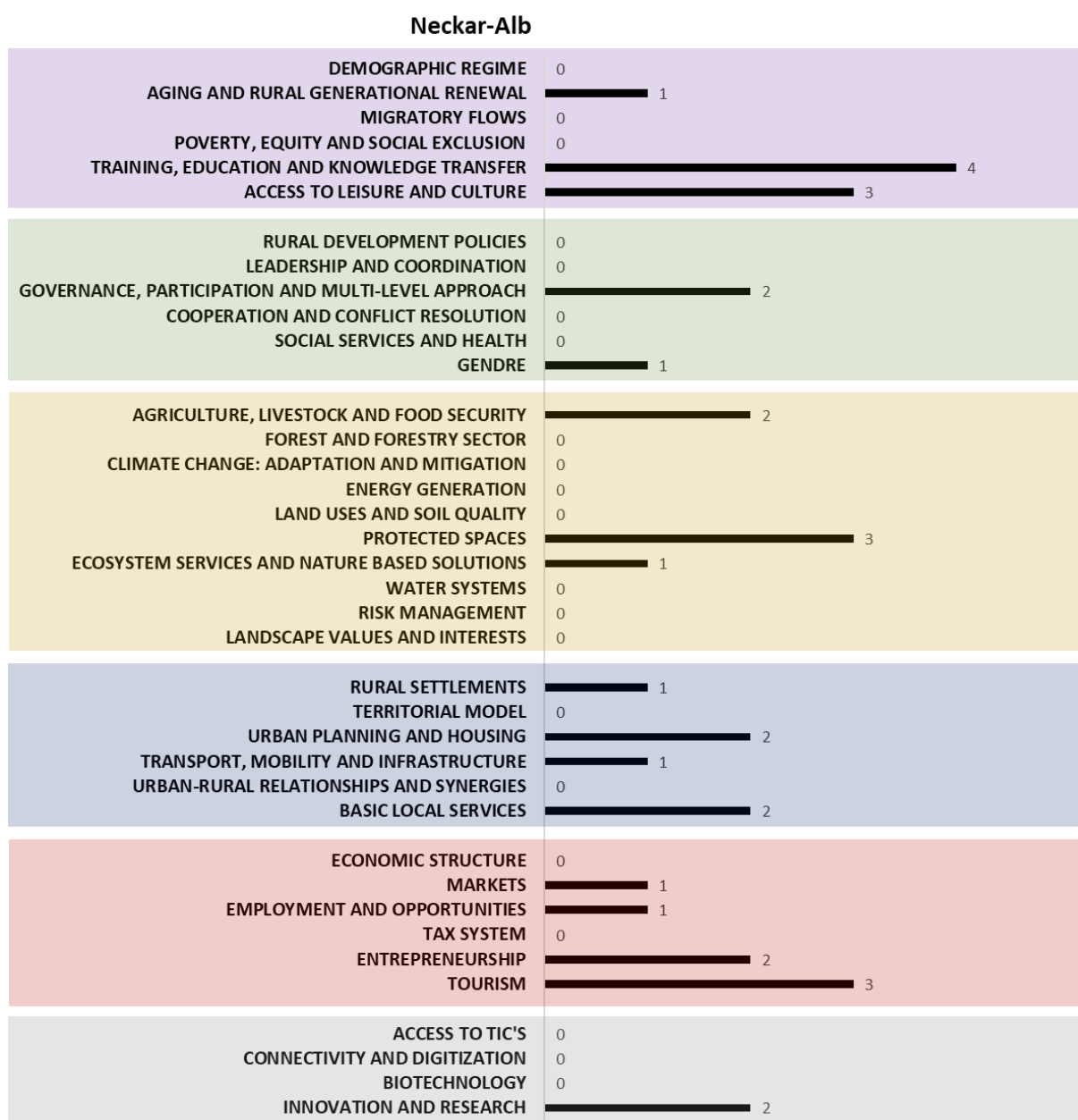
7.17.8 Neckar-Alb (Germany)

The good practices identified in Neckar-Alb are:

- **GP 01–UNESCO Biosphere Reserve Swabian Alb:** the Biosphere Reserve Swabian Alb is a model region for sustainable development that combines ecological, economic and social interests in its approach.
- **GP 02–Baking culture for the love of home:** a vacant historic venue in Gomadingen has been restored with an innovative and sustainable bakery concept. The main objectives focused on liveable villages and regional value creation.

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Table 11 Total number of times that the different topics and factors appear in the good practices identified in Neckar-Alb



The prolific writing of Neckar-Alb good practices means that aspects belonging to all the thematic blocks described in the methodology are mentioned, directly or indirectly. The good practices themselves, diverse in origin, contribute to this variety.

The thematic block *Society* (9) is, quantitatively, the most covered, especially the factors *Training, education and transfer of knowledge* (4) and *Access to leisure and culture* (3).

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Other important topics that appear and are widely referenced are *Economy* (7), *Environment* (6) and *Territory* (6).

In general, the relationship of the good practices with the SWOT is also very rich and varied, especially because in this case the analysis carried out is broad, collecting in thematic analyses a good number of the various characteristics of the region. The work was carried out in collaboration with stakeholders participating in the project processes.

The different thematic SWOTs mainly deal with environmental risks and the aging of the population, given that depopulation is not currently a challenge in the Neckar-Alb region. Finally, by way of synopsis, a synthesis of the various topics is presented in a general SWOT. The two large blocks are broken down as follows:

- Biodiversity and Protected Nature
- Water supply
- Heavy rains
- Heat management
- Forestry
- Agriculture
- Landscape
- Environmental Education
- Land use
- Environmental Compensation Areas
- Mobility and local supply in rural areas
- Renewable Energies
- Shortage of qualified workers due to demographic change

These topics covered in the German good practices are also reflected in the SWOT analysis of the region, as shown in table 12.

Table 12 Extract from Neckar-Alb's SWOT analysis

Strengths	Diverse landscape, protected nature and environmental and biodiversity quality.
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Weaknesses	Population densification and competition between land uses.
Opportunities	Ecological production and farming practices that help maintain nature.
Threats	Increase in potential risks (forest fires, heavy rains, etc.) can harm the environment, soils and productive practices of the primary sectors.

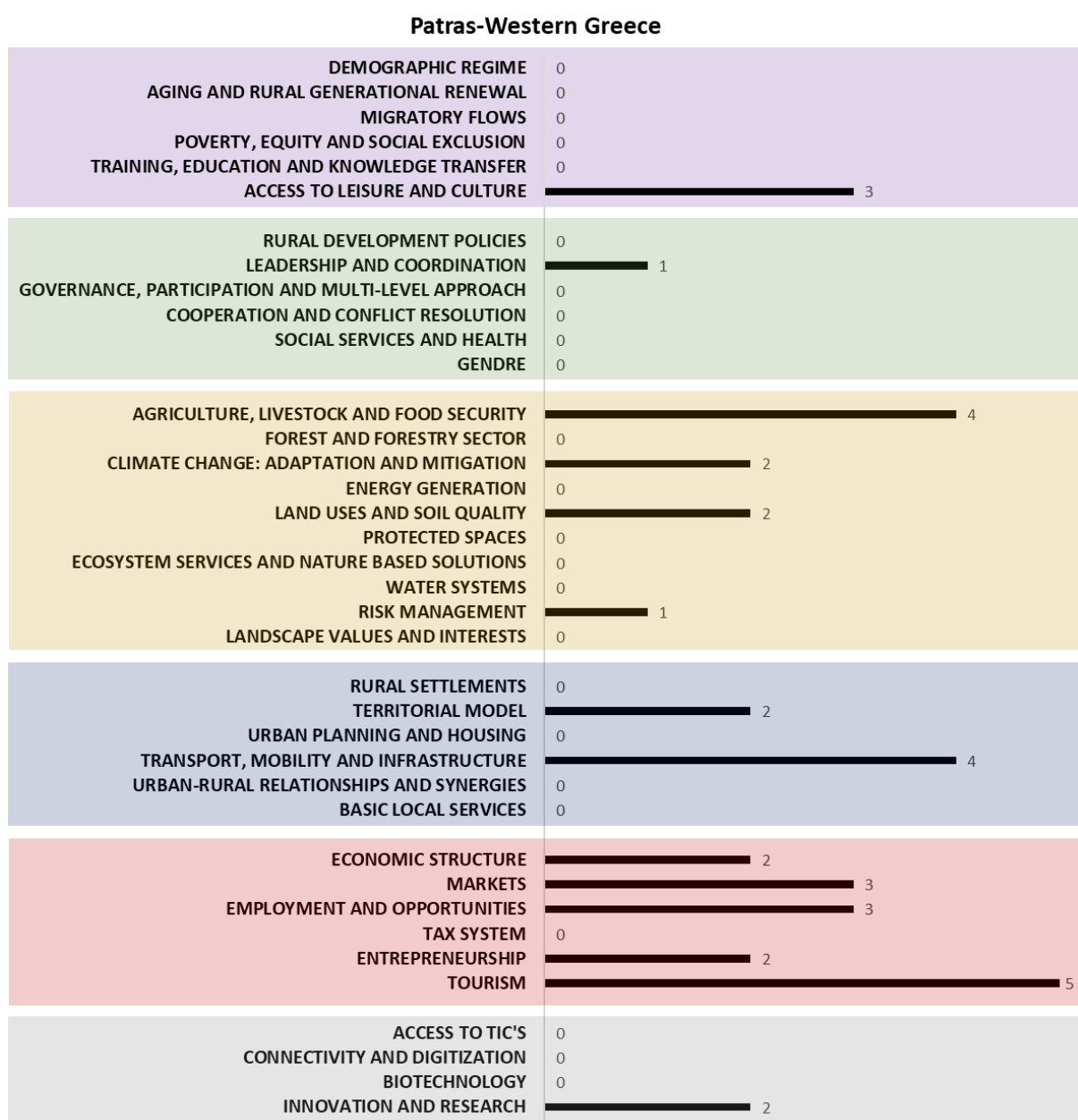
7.17.9 Western Greece (Greece)

The good practices identified in Western Greece are:

- **GP01-Kalavrita Ski Centre - Achaia, Greece:** modernisation of Kalavrita Ski Centre to enhance visitor capacity, safety, and extend operational season.
- **GP02-Lemons production and packaging unit in Thermo:** innovative lemon processing and packaging unit in Myrtia, Thermo, utilizing advanced technology for quality assurance and product traceability.

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Table 13 Total number of times that the different topics and factors appear in the good practices identified in Western Greece



In the good practices identified in Western Greece, the actions have a direct impact on the Economy (15), given that the initiatives focus on infrastructures applied to leisure/sporting and productive activities. Nonetheless these initiatives have also an impact on the Environment (9) and the Territory (6).

The factors Tourism (5) and Transport, Mobility and Infrastructure (4) stand out, in this case linked to the improvement of sports and logistics facilities.

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The productive plant linked to the production of lemons explains the relevance of the Agriculture, livestock and food security factor (4). This initiative provides the region with a modern facility that guarantees the viability of production.

These topics covered in the Italian good practices are also reflected in the SWOT analysis of the region, as shown in table 14.

Table 14 Extract from Greece's SWOT analysis

Strengths	<p>Natural Capital Assets: the region of Western Greece boasts rich natural capital assets across all three regional units, including forests, mountains, wetlands, and NATURA 2000 sites. These areas hold immense ecological and economic value, supporting biodiversity, tourism, and agriculture.</p> <p>Mountain and Winter Tourism Resorts: the region's mountainous terrain and winter tourism resorts offer opportunities for year-round tourism, contributing to the local economy.</p>
Weaknesses	<p>Weak Planning and Environmental Management Norms: weaknesses in planning and environmental management can lead to uncoordinated development, posing risks to natural resources and ecosystems. Environmental risks that are relatively well documented in technical studies are often not subject to effective long-term monitoring and management.</p> <p>Youth Flight and Rural Exodus: the region faces a significant challenge of youth flight and rural exodus, which can result in a declining workforce and social imbalance.</p> <p>Ageing Farmers: the ageing population of farmers may lead to a decline in agricultural productivity and innovation.</p>
Opportunities	<p>Funding Opportunities: access to funding opportunities through the ROP (Regional Operational Program) Cohesion, LEADER, and RRF (Recovery and Resilience Facility) can support projects that address regional challenges.</p> <p>Growing Trend for Year-Long Tourism: the trend of year-long tourism offers opportunities to expand tourism beyond the traditional summer season.</p>

Threats

Environmental Losses and Damages: climate-related environmental losses and damages, such as soil erosion and water scarcity, pose threats to agriculture and natural resources.

Inflation in Goods and Raw Materials: inflation in goods and raw materials, especially in rural areas, energy, and food costs, can strain household budgets and hinder economic development.

7.18 Analysis of the proposals for improvement

7.18.1 Society

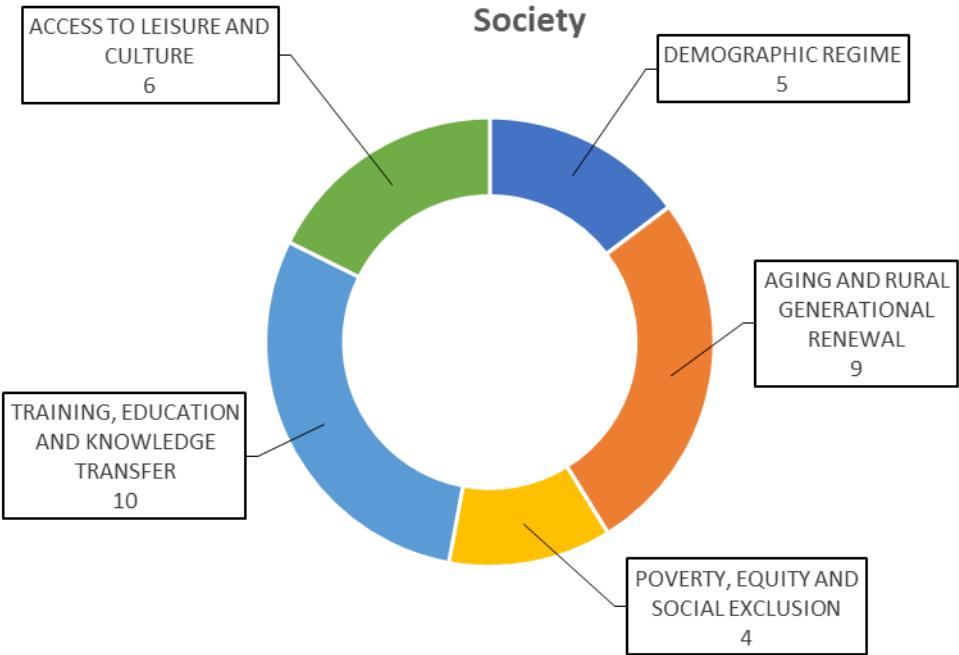
The generic heading Society (34) brings together a broad theme with factors that deal with diverse aspects based on the demographic regime and access to education and culture.

Training, education and knowledge transfer (mentioned 10 times) is the most discussed factor for this topic in the various regional reports, especially in Romania (4). A recurring challenge of European rural communities is Aging, generational renewal and population retention (9), as shown in regional reports. The Demographic Regime (5) is mentioned to a lesser extent, possibly because it responds to structural aspects that are more difficult to address from the local/regional scope.

On the contrary, it is striking that an aspect of great social and media relevance such as Migratory Movements (0) is not mentioned in any of the regional reports.

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Figure 3 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports



7.18.2 Policies

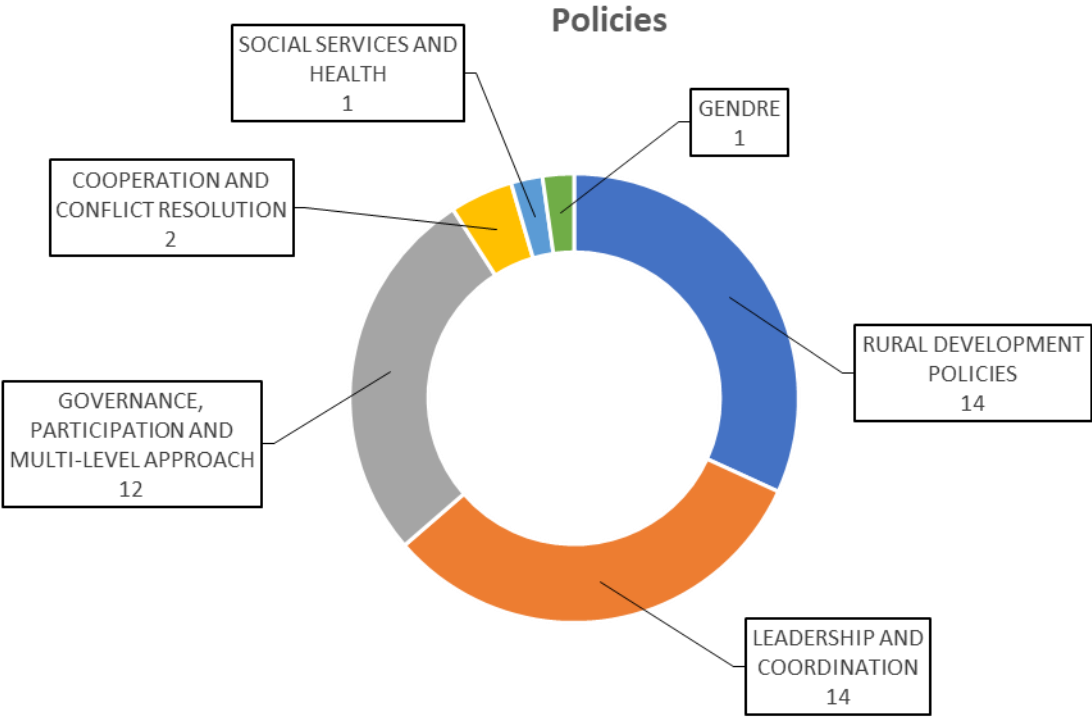
The theme Policies (44) refers to all those factors linked with the design of public policies, legislation and instruments derived from them with relevance for the management of rural societies and the multi-level governance of people and territories.

The central aspect of this section is the regulatory framework itself and the design of tools, as can be deduced from the numerous references to the factor Rural development policies and regulatory framework (14). The factor Leadership and coordination between administrations and territories (14) stands out too. It is an issue apparently complementary to major policies, but which appears to be relevant given that it influences the practical application of the various strategies and measures adopted in relation to the rural world. Naturally, this aspect of competences and their coordination between administrations is complemented by Governance, public participation, and a multilevel approach (12), particularly relevant for the municipality of Campobasso (4). This is an example of the empowerment of local communities.

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The factors with less weight in the reports are Social Services (1) and Gender Policies (1), probably because they are issues not directly aligned with the specific annual theme of the project.

Figure 4 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports



7.18.3 Environment

The issue of the environment is a crosscutting aspect of the Down to Earth project and a fundamental topic to be addressed in the first year of the "core phase" in relation to environmental risks related to depopulation and aging in rural areas. Thus, the theme Environment (102) is the most recurrent in the Proposals for improvement in all regional reports.

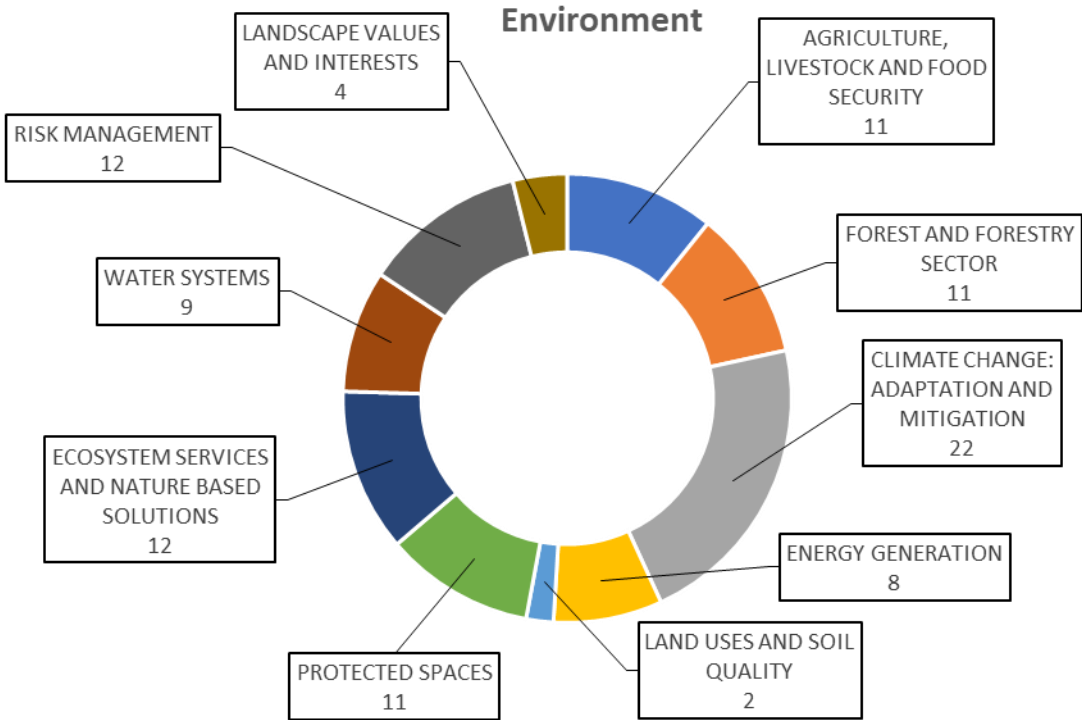
The factor Climate change: adaptation and mitigation (22) is the most recurrent factor mentioned and it appears in all of the reports, stressing the emergency of the issue. In particular, this factor is mentioned in the following reports: BSC Kranj-Gorenjska (5), MeteoRomania (5), Neckar-Alb (4), Patras-Western Greece (4), AGADER-Galicia (3) and Municipality of Campobasso (2).

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Other popular factors in section 5 of the reports are Ecosystem services and nature-based solutions (12), Risk management (12), Protected areas and environmental conservation (11), Forests and the forestry sector (11) and Agriculture, livestock and security food (11).

The factors with the lowest number of mentions are Landscape (4) and Land use and soils (2), perhaps because they are more specific, despite also affecting broad issues.

Figure 5 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports



7.18.4 Territory

The Territory (33) is a fundamental theme for the issues addressed by the project. It is the physical basis, administrative delimitation, and sphere of action of the processes and activities that Down to Earth deals with. Considering that the territorial basis is present implicitly and more or less directly in all other topics, in this model of analysis the territory is established as a practical concept close to the consideration of territorial planning and management.

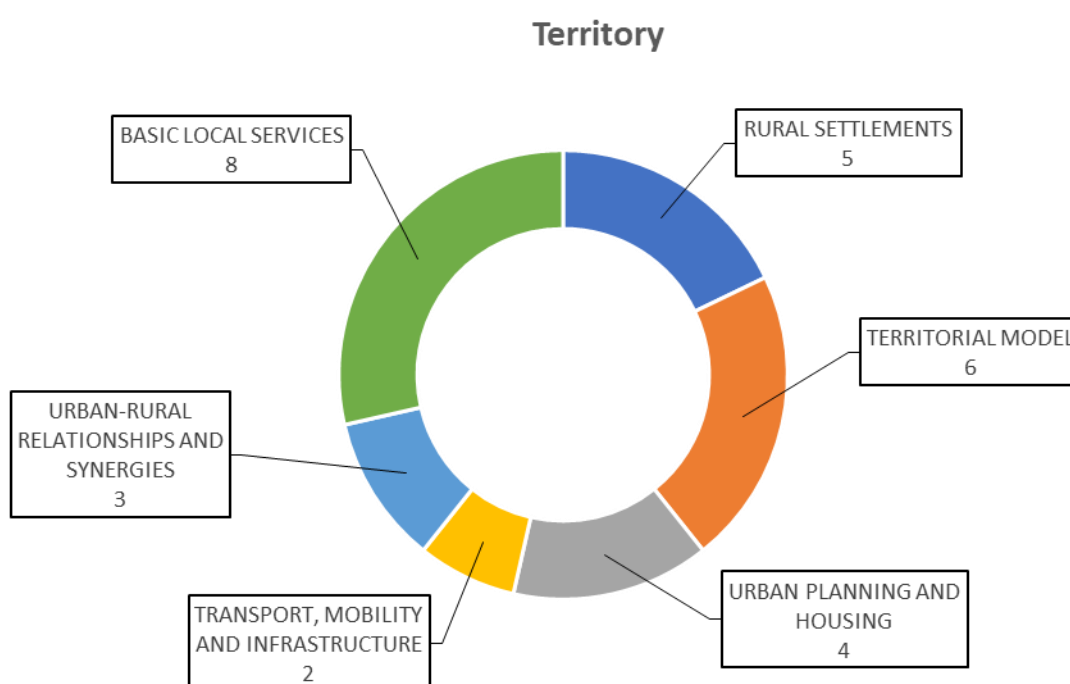
In this way, the factor Basic local services (12) is the most discussed aspect in this subject, being addressed in the vast majority of regional reports, such as in the Municipality of

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Campobasso (4). The Territorial Model factor (8), directly linked to the territorial planning issue, is also relevant, especially in the Galician report (3).

Urban-rural relations (1) are only mentioned by the Municipality of Campobasso, despite being a relevant factor for the social consideration of rural areas and the establishment of socio-economic synergies between both areas.

Figure 6 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports



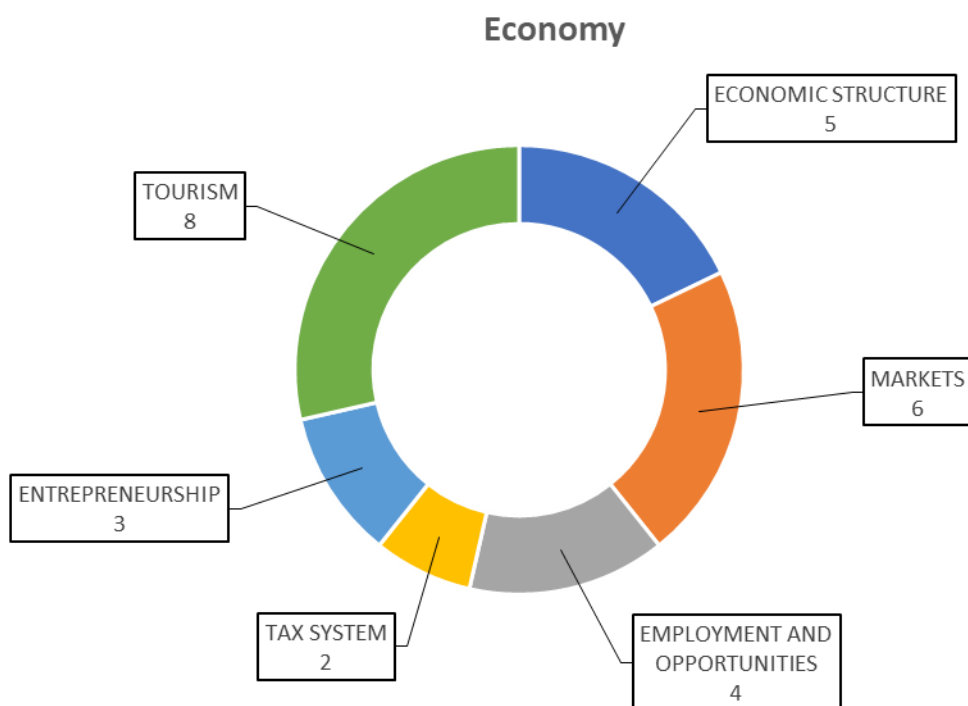
7.18.5 Economy

The Economy (28) does not have a prominent presence in Proposals of the partners. Considering the direct relationship between the various types of capital (social, economic and natural), crosscutting economic development is always important for rural development.

The annual theme of Down to Earth is linked to the resilience of the territories, so in the economic field, the Tourism factor (8) is the one that appears the most in the documents as it is linked to the establishment of sustainable tourism models with direct beneficial impact on environmental aspects. The Market (6) and Economic Structure (5) factors are

next in this numerical ranking. On the contrary, the tax system and financial support (2) are factors that appear less often, despite being issues usually referred to as keys to facilitate processes in the search for efficient rural development.

Figure 7 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports



7.18.6 Technology

The continuous advances in relation to Technology (23) generate new general challenges, especially for a rural world that, despite the clichés, is increasingly avant-garde and advanced in terms of technical resources. The technological challenges that rural societies face, the adaptation they require and the opportunities they imply are not particularly addressed in the reports. Technology is, in fact, the subject with fewer appearances in the texts.

Among the most prominent technology-related factors in the reports are the necessary Connectivity and digitalization (9) and Innovation and research (7). Biotechnology (2) has very little presence, probably because it is a very specific technical issue to apply as a central factor in some Proposal for improvement of a more generic nature.

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Figure 8 Total number of times that the different factors appear in the proposals for improvement put forward in the regional reports

