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COMMISSION STAFF WORKING DOCUMENT
Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

A long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040

{COM(2021) 345 final} - {SWD(2021) 167 final}

Table of Contents

1. MANDATE TO DESIGN A LONG TERM VISION FOR EU RURAL AREAS

President Von der Leyen's political guidelines[1] highlight that rural areas are a core part of our identity and our economic potential and that we will cherish and preserve our rural areas and invest in their future. The mission letters to Vice-President Šuica, Commissioner Wojciechowski and Commissioner Ferreira underline the need for designing a long term Vision for rural areas.

Various EU policies currently support and play important roles in rural areas, and are therefore key in developing the long-term vision for rural areas. Those include the Common Agricultural Policy, Regional, Cohesion and Social policies and a number of other EU policies such as those dealing with energy, transport, connectivity, employment, environment or climate.

The vision belongs to the Democracy and Demography work strand and follows the Report on the impact of demographic change[2] and the Green paper on ageing[3]. However, the rural vision is much broader than demography issues; it embraces all the aspects that are relevant for the future of rural areas. Therefore, links with other key Commission policies and initiatives are also ensured, including the European Green Deal[4] and the related Farm to Fork strategy[5], a Europe Fit for the Digital Age[6], the European Pillar of Social Rights[7] and the Conference on the future of Europe[8]. The vision should also build on the "Next Generation EU" Recovery Plan[9].

According to the mandate, the vision should contribute to enable rural areas to make the most of their potential and support them in facing up to their own unique set of issues, from demographic change to connectivity, from the risk of poverty to limited access to services but also their potential to deliver innovative, inclusive and sustainable solutions.

Rural areas can offer a range of social and economic opportunities to rural dwellers and the society as a whole, with a unique quality of life, job opportunities in many and diverse business areas. In addition to their role in food security, they have a special role to play in the transition to a green and sustainable Europe, by mitigating climate change, providing alternatives to fossil fuels, reversing the biodiversity crisis, using resources sustainably and developing the circular economy. In addition, the COVID-19 crisis could lead to significant changes to society, which rural areas could benefit from and in which they are implicated.

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[1] Political guidelines for the next European Commission 2019-2020, A Union that Strives for more. https://ec.europa.eu/info/sites/info/files/political-guidelines-next-commission_en_0.pdf

[2] COM (2020) 241 Communication on the impact of the demographic change. In April 2021 the *Atlas of Demography* was launched as a new interactive tool which helps visualise, monitor and anticipate demographic change in Europe.

[3] COM (2021) 50 Communication on the Green paper on Ageing.

[4] COM (2019) 640 Communication The European Green Deal.

[5] COM (2020) 381 Communication A Farm to Fork Strategy.

[6] European Commission, A future fit for the digital age. https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_en

[7] COM (2021) 102 Communication The European Pillar of Social Rights Action Plan.

[8] European Commission, Conference of the Future of Europe. https://ec.europa.eu/info/strategy/priorities-2019-2024/new-push-european-democracy/conference-future-europe_en

[9] European Commission, *Recovery plan for Europe*. https://ec.europa.eu/info/strategy/recovery-plan-europe_en

In the mission letters to Vice-President Šuica, Commissioner Wojciechowski and Commissioner Ferreira, there was a specific request to ensure that people living in rural areas, as well as local and regional authorities, are consulted in the development of the vision and for this reason the Commission paid particular attention to public consultation activities.

2. PROCESS OF DESIGNING A LONG TERM VISION FOR EU RURAL AREAS

The following actions have been carried out in order to elaborate the Vision:

- A **joint letter** to the Member States by the Vice-President and the two Commissioners has kicked off the exercise. It followed the adoption of the Report on demographic change. The objective was to draw attention to rural areas in the ongoing phase of preparation of the CAP Strategic plans and the Cohesion and Regional programmes.

- A public consultation with citizens, especially people living in rural areas, as well as local and regional authorities. The Commission also ensured consistency and explored links with other consultation activities. Events with the European Parliament, the Committee of the Regions, or the European Economic and Social Committee have also taken place, and synergies found with the ongoing corporate communication campaign on rural areas. The Commission has made the most of the Rural network(s) and their membership as a platform for **exchanges and discussions** in order to benefit from the long experience and direct contacts with stakeholders at local level throughout the EU. A **conference** (Rural Vision Week) took place at the end of the consultation process, with a view of taking stock on the outcomes of the public consultation, commenting and complementing its results and making additional input to the Communication. Further details about the public consultation are included in the Synopsis report accompanying the Communication. [10]

- Analytical work has been carried out in 2020 and in the first quarter of 2021 regarding challenges and opportunities of rural areas and actions taken at EU/National/Regional level, including governance aspects (e.g. rural proofing). The analysis considered relevant evaluation studies, the latest statistical information available as well as the outcomes of related research projects and the thematic work by the European Network for Rural Development (ENRD). Further details are provided in chapter 3 of the Staff Working Document.

- Since it will be a ***long-term*** **vision**, **foresight**[11] is indispensable to help identifying how rural areas might evolve and the trends and drivers of change that will shape European rural areas in 2040. This exercise was built on ongoing Horizon2020 (H2020) research projects and on contributions from the Commission's Joint Research Centre, prepared in conjunction with the work of the ENRD Thematic Group on the Long Term Rural Vision including experts from all around the EU. Further details are provided in chapter 5.

- A dedicated **inter-service group** of representatives of the relevant Directorates-Generals of the European Commission under the umbrella of the already existing Inter-Service Steering Group

[10] SWD (2021) 167 *Stakeholder consultation- Synopsis Report Accompanying the Communication A long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040.*

[11] Foresight is the discipline of exploring, anticipating and shaping the future to anticipate developments and better prepare for change. European Commission, *Strategic Foresight Report- Charting the course towards a more resilient Europe*, 2020.

on Demography was also established to ensure that the long-term Vision takes on board all inputs from the different EU policies relevant for rural areas.

The Commission Communication takes into account the outcomes of these work streams as a basis for short and long-term actions and policy development. Further details are provided in this Staff Working Document as well as on the Synopsis report of the public consultation, accompanying the Communication.

3. EU RURAL AREAS ANALYSIS

INTRODUCTION: METHODOLOGICAL NOTE

- Introducing the analysis of rurality at three geographical levels

When people speak of 'rural areas' they usually refer to different geographical entities depending on their own perception. But also for statistical and analytical purposes there is not one single understanding what 'rurality' means.

This document indeed investigates rurality at three geographical levels. The most detailed geographical level consists of **1 km square grid cells**, followed by the **local administrative unit (LAU)** or municipality level and finally the **NUTS-3[12] level regions**. Depending on the aspect that is analysed, one level can be more relevant than another. The lowest level at which administrative decisions are taken is the municipality or LAU level. Moreover, certain indicators are only available for one of these geographical levels so that not all thematic aspects can be analysed at the same (desired) degree of granularity. For instance, detailed data on demography, economy (gross domestic product per capita, gross value added per capita, employment by sector), and accessibility to fixed-line broadband are not available at LAU level. As a result, a combination of information from these levels is needed to provide a comprehensive picture of rurality in the EU.

The analysis in this document hence uses data which mainly relate to two geographical levels: **rural areas** (a classification of the LAU level) and of a **predominantly rural region** (a classification of NUTS-3 level regions). Both rural areas and predominantly rural regions are defined in the same way: they have the majority of their population living in rural grid cells. The classification of LAUs is called the **Degree of Urbanisation** and the classification of NUTS-3 level regions refers to the **Urban-Rural regional typology**.[13]

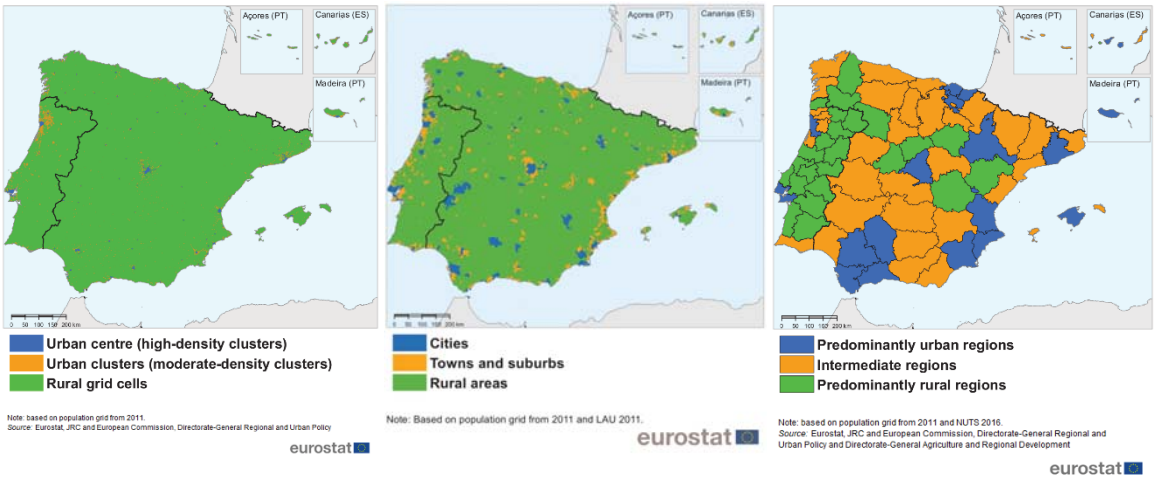
As an example, Map 1 shows the three geographical levels for Spain and Portugal. From these three maps, it is clear that the amount of land classified as 'rural' will differ significantly between the three geographical scales. In Spain, the share of land covered by rural grid cells is 98%, by rural areas is 90% and 17% by predominantly rural regions. The impact on population is more limited, but still significant. It changes from 17% of the Spanish population in rural grid cells, to 27% in rural areas and 4% in predominantly rural regions.

[12] NUTS - Nomenclature of territorial units for statistics

[13] Eurostat, *Methodological manual on territorial typologies,* 2018. https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-18-008

Map 1 Urban-rural classification at grid level, Degree of Urbanisation at local administrative unit level and the urban-rural regional typology in Spain and Portugal

Grid cell classification	Degree of Urbanisation, local administrative unit level	Urban-rural regional typology



The EU contains over 4 million 1 km^2 grid cells	The EU contains over 100,000 local administrative units.	The EU has 1 166 NUTS-3 regions.

Source: Eurostat, JRC and DG REGIO

Table 1 Share of land area using different typologies (% of land area)

Based on 2011 population grid, LAU 2011 delineation and NUTS 2016

	Type of cluster (contiguous grid cells of 1 km²)			Degree of urbanisation (LAU areas)			Urban-rural typology (NUTS level 3 regions)		
	Urban centres	Urban clusters	Rural grid cells	Cities	Towns and suburbs	Rural areas	Predominantly urban regions	Intermediate regions	Predominantly rural regions
EU-27	0.7	3.5	96.5	3.4	13.6	83.0	9.7	45.7	44.6
Belgium	2.5	20.9	79.1	4.7	41.4	53.9	23.8	43.7	32.5
Bulgaria	0.3	1.5	98.5	2.1	6.0	91.9	1.2	76.7	22.1
Czechia	0.7	4.2	95.8	2.7	11.5	85.7	14.5	48.7	36.8
Denmark	0.9	4.8	95.2	5.7	14.5	79.8	1.2	47.2	51.6
Germany	1.9	9.2	90.8	5.0	28.1	66.9	11.8	49.7	38.5
Estonia	0.2	0.8	99.2	0.6	1.2	98.2	9.6	8.9	81.6
Ireland	0.6	1.7	98.3	1.5	3.3	95.2	1.3	9.8	88.8
Greece	0.4	1.6	98.4	0.9	5.1	94.0	5.7	31.7	62.6
Spain	0.5	1.9	98.1	3.9	5.9	90.2	23.3	59.8	16.9
France	0.7	3.1	96.9	4.4	7.5	88.1	7.9	40.5	51.6
Croatia	0.3	2.6	97.4	1.8	11.4	86.9	1.1	35.9	62.9
Italy	1.3	7.6	92.4	4.7	22.6	72.6	20.4	54.0	25.5
Cyprus	1.4	3.8	96.2	6.6	6.2	87.2	0.0	100.0	0.0
Latvia	0.2	0.9	99.1	0.8	13.4	85.8	0.5	59.3	40.2
Lithuania	0.3	1.3	98.7	1.3	1.7	97.1	15.0	71.3	13.7
Luxembourg	1.1	8.2	91.8	2.0	9.8	88.2	0.0	100.0	0.0
Hungary	0.6	3.8	96.2	2.9	20.0	77.1	0.6	71.8	27.6
Malta	18.4	46.4	53.6	15.9	62.3	21.8	100.0	0.0	0.0
Netherlands	5.1	15.7	84.3	13.1	42.2	44.7	51.3	46.7	2.0
Austria	0.5	3.3	96.7	1.1	10.6	88.3	7.1	17.6	75.3
Poland	0.7	3.6	96.4	2.4	9.4	88.2	4.5	42.0	53.5
Portugal	0.8	5.1	94.9	4.8	9.2	86.0	6.2	14.6	79.2
Romania	0.4	2.0	98.0	1.5	9.1	89.4	0.8	31.4	67.8
Slovenia	0.4	3.7	96.3	2.1	19.7	78.2	0.0	27.2	72.8
Slovakia	0.3	3.1	96.9	2.3	12.5	85.3	4.2	49.8	46.0
Finland	0.1	0.7	99.3	2.1	11.9	86.0	2.8	14.7	82.5
Sweden	0.2	0.8	99.2	3.6	25.6	70.8	8.0	67.8	24.2

Note: Based on 2011 population grid, LAU 2011 delineation and NUTS 2016.
Data at grid cell and LAU level does not include the French outermost regions.

Source: JRC and DGREGIO based on Eurostat data (demo_r_d3area) / GISCO
Note: The 2011 population grid is the most recent official grid. The official grid for 2021 will be published in early 2023.

Table 2 Share of population using different typologies (% of population)

Based on 2011 population grid, LAU 2011 delineation and NUTS 2016

	Type of cluster (contiguous grid cells of 1 km²)			Degree of urbanisation, 2011 (LAU areas)			Urban-rural typology, 2019 (NUTS level 3 regions)		
	Urban centres	Urban clusters	Rural grid cells	Cities	Towns and suburbs	Rural areas	Predominantly urban regions	Intermediate regions	Predominantly rural regions
EU-27	34.3	69.7	30.3	37.6	31.9	30.6	40.2	38.9	20.9
Belgium	29.3	78.8	21.2	27.6	55.8	16.6	53.4	38.1	8.5
Bulgaria	39.1	66.6	33.4	44.6	22.3	33.1	19.0	68.1	12.9
Czechia	24.1	61.3	38.7	30.3	32.6	37.1	25.1	53.7	21.2
Denmark	27.3	64.5	35.5	34.4	20.8	44.8	22.9	48.7	28.4
Germany	30.9	72.8	27.2	34.9	41.6	23.5	43.6	40.8	15.6
Estonia	38.4	64.9	35.1	42.4	16.8	40.7	45.2	10.3	44.5
Ireland	29.7	54.0	46.0	33.8	21.7	44.5	28.3	14.7	57.0
Greece	45.1	69.4	30.6	36.0	26.0	37.9	45.2	23.5	31.3
Spain	51.0	82.9	17.1	48.8	24.7	26.5	63.3	33.3	3.4
France	34.7	63.4	36.6	44.4	22.3	33.3	35.3	36.6	28.0
Croatia	25.4	58.3	41.7	29.5	29.7	40.8	19.8	37.6	42.6
Italy	33.1	76.5	23.5	32.8	42.5	24.7	47.1	43.0	9.9
Cyprus	49.9	77.8	22.2	51.6	23.1	25.3	0.0	100.0	0.0
Latvia	32.9	63.7	36.3	42.9	20.0	37.1	32.9	45.4	21.7
Lithuania	31.9	63.4	36.6	42.1	8.5	49.3	29.0	62.7	8.3
Luxembourg	18.0	63.8	36.2	18.4	37.0	44.7	0.0	100.0	0.0
Hungary	27.6	65.5	34.5	29.9	35.4	34.7	17.9	63.4	18.7
Malta	61.9	95.6	4.4	48.1	44.4	7.5	100.0	0.0	0.0
Netherlands	46.9	85.6	14.4	44.5	40.7	14.8	74.2	25.2	0.6
Austria	29.3	57.8	42.2	30.1	29.3	40.7	32.1	27.7	40.3
Poland	30.0	60.8	39.2	34.8	24.5	40.7	25.3	38.9	35.8
Portugal	33.3	70.3	29.7	43.7	29.5	26.8	46.9	22.2	30.9
Romania	32.3	55.8	44.2	33.0	21.4	45.6	11.9	34.9	53.2
Slovenia	14.4	50.3	49.7	15.6	31.4	52.9	0.0	41.8	58.2
Slovakia	13.9	56.0	44.0	20.5	36.0	43.4	12.1	50.5	37.4
Finland	23.1	61.8	38.2	35.5	28.3	36.3	30.3	30.2	39.5
Sweden	29.5	67.2	32.8	39.3	31.0	29.8	39.6	51.4	9.0

Note: Based on 2011 population grid, LAU 2011 delineation and NUTS 2016.
Data at grid cell and LAU level does not include the French outermost regions.

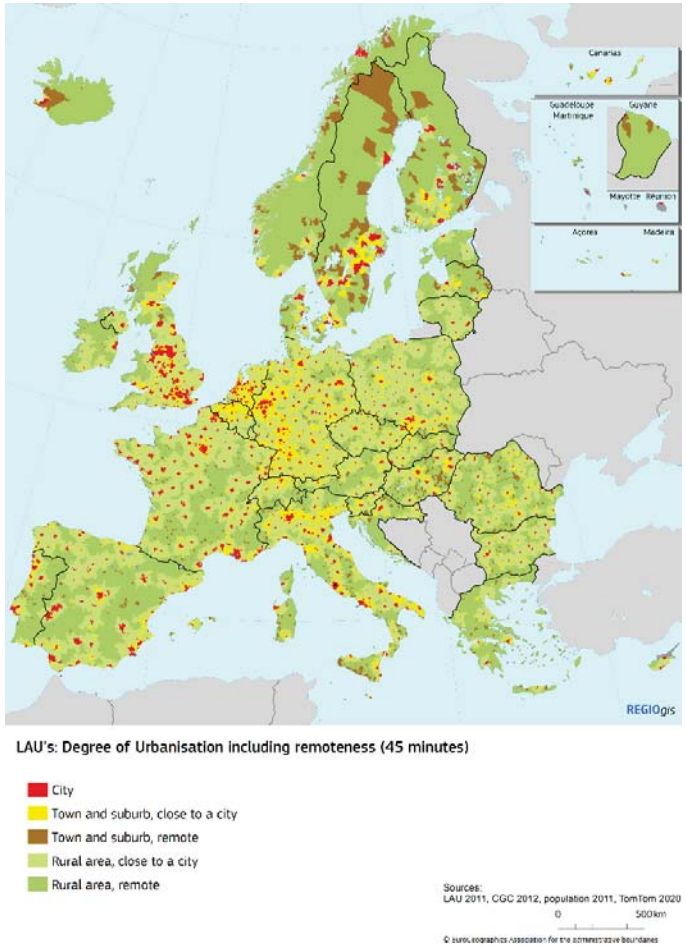
Source: JRC and DGREGIO based on Eurostat data (GEOSTAT, Census Hub, demo_r_pjanaggr3)
Note: The 2011 population grid is the most recent official grid. The official grid for 2021 will be published in early 2023.

- Considerations on remote rural areas and regions

Some issues are influenced by how far rural areas or regions are located from the nearest city. Both the degree of urbanisation and the urban-rural regional typology can incorporate this dimension of remoteness (Map 2, Map 3). The criterion is simple and identical for both definitions: **if the majority of the population in an area or a region live more than a 45-minute drive by car[14] from the nearest city, it is classified as remote**. Other areas and regions are classified as close to a city. Cities and predominantly urban regions are by definition close to a city.

[14] This analysis does not take into account connections by public transport.

Map 2 LAU's Degree of Urbanisation including remoteness (45 min)



Source: DG REGIO

Map 3 Urban-Rural NUTS-3 typology including remoteness (45 minutes)

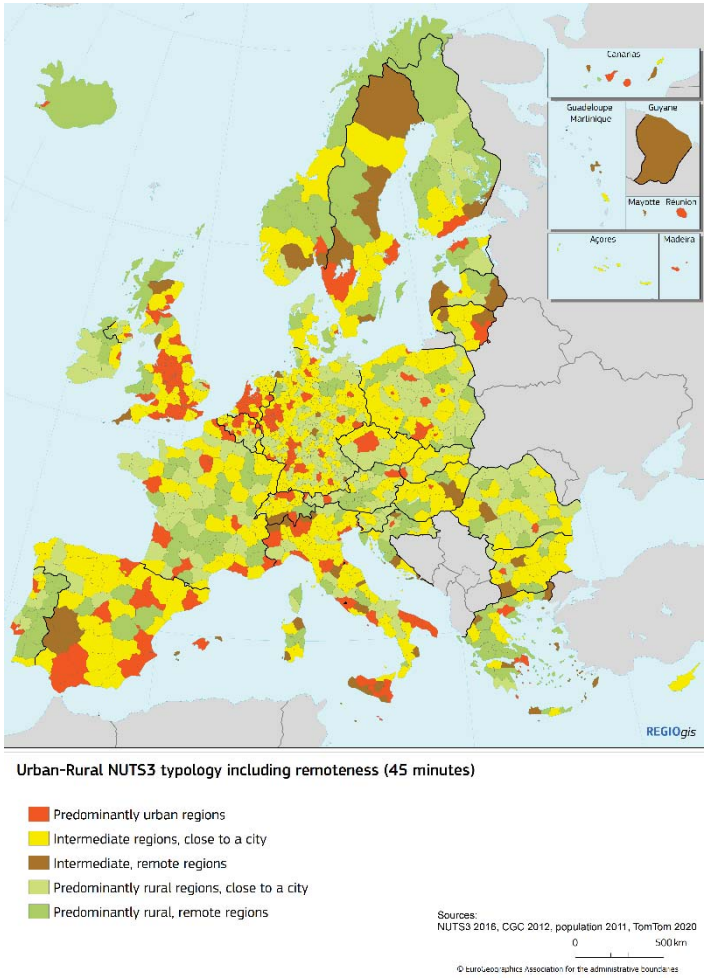
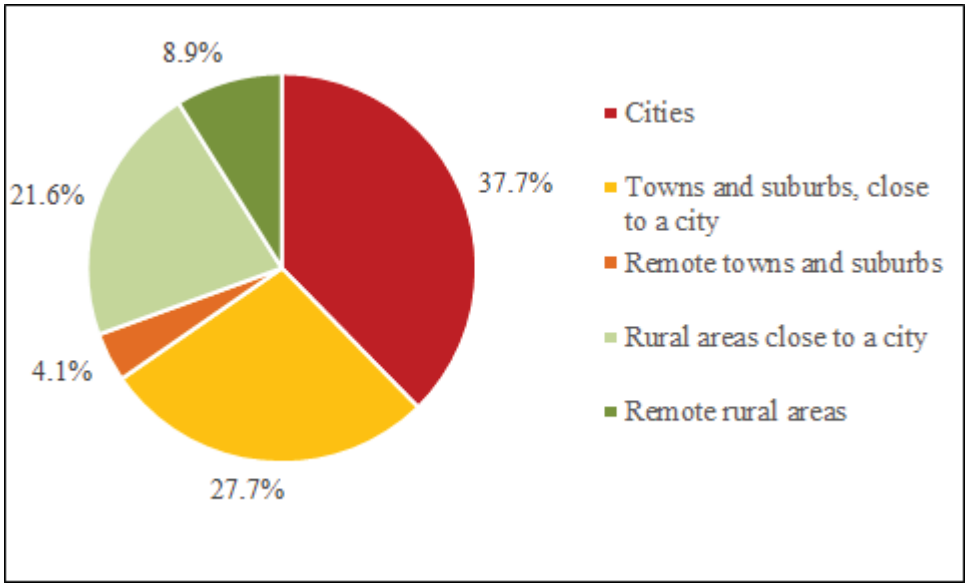
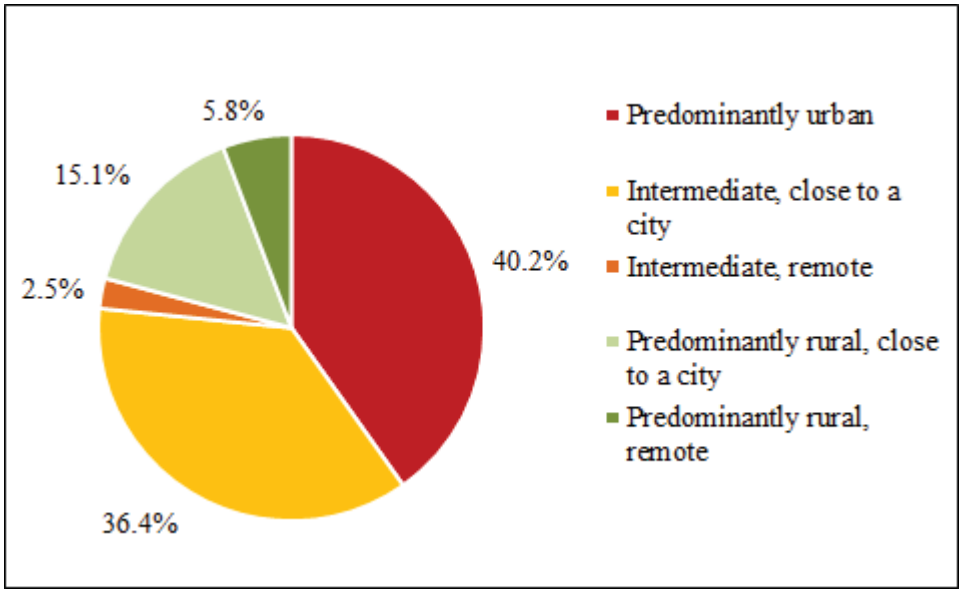


Figure 1 EU Population by Degree of Urbanisation (LAU areas) and remoteness, 2011, in %



Source: JRC-REGIO based on GEOSTAT 2011

Figure 2 EU Population by urban-rural regional (NUTS-3) typology and remoteness, 2019, in %



Source: JRC-REGIO based on Eurostat table demo_r_pjanaggr3

- Calculation of rural advantages and disadvantages

Some of the graphs presented in this document classify rural areas depending on their advantage or disadvantage compared to cities.

Advantages and disadvantages were calculated in a step-by-step process.

Step 1

We calculated the gap as the difference between the indicator value recorded for cities and the value recorded for rural areas.

Step 2

For positively formulated indicators (for e.g. employment rate) a positive gap was evaluated as advantage and a negative gap as a disadvantage.

For negatively formulated indicators (for e.g. unemployment rate) a positive gap was evaluated as disadvantage and a negative gap as an advantage.

Step 3

For each Member State (MS) we calculated a Z score. This was done according to the following formula:

$Z\ score\ for\ MS = MS$ gap / $standard\ deviation$ of the 27 MS gaps

Step 4

Then the distributions of scores are analysed. The gap of each Member State is assessed and classified on the basis of the resulting z-scores against pre-defined thresholds.

A Z score with an absolute value above 1 is considered high, a Z score with an absolute value between 1 and 0.5 is considered moderate. A Z score with an absolute value between 0.5 and 0 is considered neutral.

Table 3 Z scores of advantages and disadvantages of rural areas compared to cities

	Z scores				
	Z < -1	**-1 ≤ Z < -0.5**	**-0.5 ≤ Z < 0.5**	**0.5 ≤ Z < 1**	**Z > 1**
Positively formulated indicator	high rural disadvantage	moderate rural disadvantage	on average	moderate rural advantage	high rural advantage
Negatively formulated indicator	high rural advantage	moderate rural advantage	on average	moderate rural disadvantage	high rural disadvantage

Source: Eurostat

3.1. AREA

As a starting point for the analysis of EU rural areas, this chapter describes their importance in terms of EU land area, the different land uses that mark them, and the challenges and opportunities that rural areas are facing in this regard.

- Rural areas represent 83% of the EU territory

Rural areas[15] account for 341 million hectares (m ha), which **represent 83% of the total EU land area**. More than half of this rural land area is remote, meaning that it is located far from cities. Cities, towns and suburbs account all together for 17% of the EU land area (70.3 m ha).

Table 4 EU land area by Degree of Urbanisation level 1 and remoteness in 2018

	Cities	Town and Suburbs	Rural areas
Total land (million hectares)*	14.1	56.2	341.1
of which, close to cities		36.0	164.5
of which, remote		20.2	176.6
Share of the total land	3.4%	13.6%	83.0%
Population density** (residents per sq km)	1 190	247	39
Share of agricultural land***	35.0%	37.4%	43.4%
Share of forest and natural areas****	28.3%	41.9%	46.6%

** Total land is based on the 2018 LUISA Base Map (EC-JRC)*
***: Population density is based on the 2018 population, using LAU 2011 delineation*
****, ****: Shares are computed per each Degree of Urbanisation*
Source: JRC and JRC-GEOSTAT 2018

Besides remoteness, rural areas are very diverse depending whether they are located in mountain areas, in islands, in outermost regions, in border regions, in coastal areas or in inland regions. These geographical factors play an important role in the land use, in population movements and policy interventions.

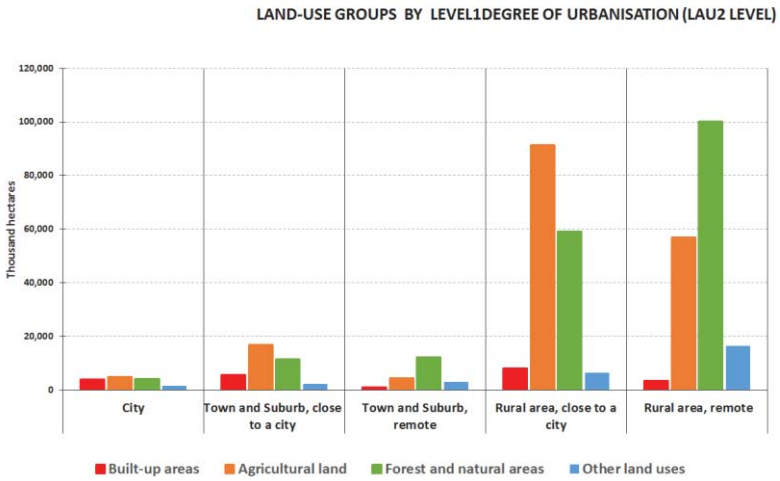
Agricultural land, forest and natural areas account for 90% of the territory of rural areas[16]. Agricultural land is the dominant land use in rural areas close to a city (52.5%) whereas

[15] For the definition of rural areas and rural regions, see the Methodological note in the introduction.

[16] The data presented in this chapter are based on the 2018 LUISA Base Map (Pigaiani et al., *The LUISA Base Map 2018 - A geospatial data fusion approach to increase the detail of European land use/land cover data*, Publications Office of the European Union, Luxembourg, 2021.) which is a high-resolution land use/land cover map produced in 2020 by the Joint Research Centre of the European Commission. The LUISA Base Map can be used for multiple purposes and applications owing to its fine spatial and thematic detail of land use/land cover consistently for Europe. It is used as the starting point in the LUISA Territorial Modelling Platform for land use projections (Jacobs-Crisioni et al., *A Technical Description. Publications Office of the European Union*, Luxembourg, 2017). For the land accounting statistics and projections reported hereinafter, we used a simplified legend consisting of the four main land use/cover categories aggregated from the 100 metres version. LUISA platform also integrated demographic

in remote rural areas, most of the territory is composed of forest and natural areas (53.6%). The 'Other land-use' class plays an important role in rural areas, especially in the remote ones, mainly due to the presence of water bodies, wetlands and other natural open spaces.

Figure 3 Main land-use groups by categories from Degree of Urbanisation and remoteness in 2018, in thousand hectares



Source: 2018 LUISA Base Map (EC-JRC)

- The use of agricultural land contributes to food security, but faces different challenges (high value agricultural land vs. land abandonment)

As agricultural land is concentrated in rural areas, one of the functions of rural areas is food production, ensuring food security. Dependency on land can bring about different challenges for rural areas and the agricultural sector. In **high valuable areas**, availability of agricultural land and high land prices (in addition to difficult access to credit) affects young farmers in accessing land for agricultural production.[17] Other areas, however, are facing **land abandonment** that can lead to multiple negative ecological, economic and social consequences. Loss of biodiversity and important bird habitats, rural landscape degradation and increased risks of soil erosion and wildfires are a few examples. Negative economic outcomes include the destruction of drainage systems, a decrease in agriculture land value, loss in profits from agriculture activities, loss of cash flow through the local economy, and a lack of employment and recreational tourism.[18]

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projections in its framework as described in Jacobs-Crisioni et al., *Development of the Luisa Reference Scenario 2020 and Production of Fine-Resolution Population by 5 Year Age Group*, Publications Office of the European Union, Luxembourg, 2021. and Perpiña Castillo C., et al., *A demographic assessment on the EU remote areas by 2050,* Policy Brief. *European Commission*, Publications Office of the European Union, Luxembourg, 2021.

[17] European Commission, *Brief No. 7. Structural change and generational renewal*, CAP Specific objectives explained. https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/cap-briefs-7-structural-change_en.pdf

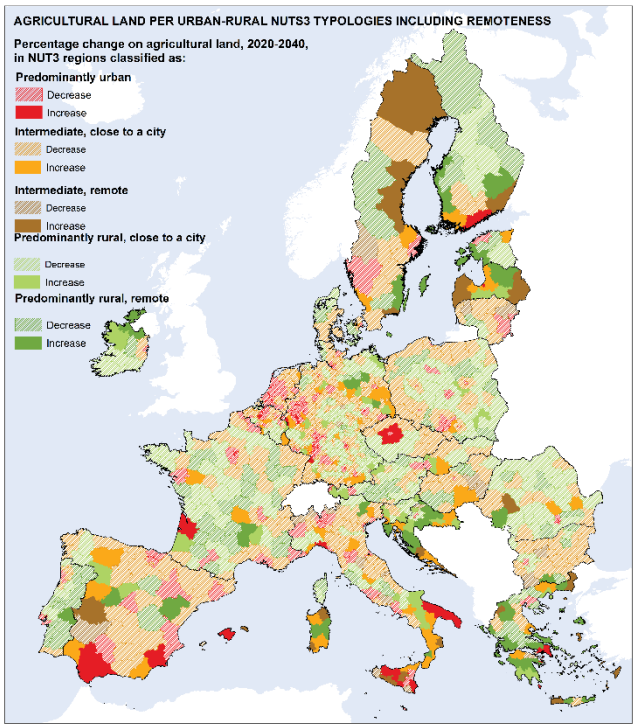
[18] Perpiña Castillo, et al., *Modelling agricultural land abandonment in a fine spatial resolution multi-level land-use model: an application for the EU, Environmental Modelling and Software*, 2021.

Especially in rural areas located in remote regions, land abandonment might also occur where ageing and the lack of economic and social opportunities lead to population decline.[19]

Changes in management practices such as agricultural intensification and specialisation might lead to high productivity in more fertile areas, while producing marginalisation and abandonment in some others[20]. Agricultural intensification can also lead to higher pressure on biodiversity and natural resources, as well as transforming landscapes to become more uniform, less diverse and less nature- rich.[21] On the other hand, a sustainable agriculture can help to safe-guard ecological systems in danger and contribute to the development of rich varieties of wetlands or woodlands. Sustainable agricultural management practices can play an important role in protecting the environment.

In the **next two decades, agricultural land is expected to decrease in most of the EU regions** (NUTS-3). At EU level, the decrease is expected to be of 1.6%. However, agricultural land is projected to increase slightly in some regions, e.g. in Sweden, Spain, the South of Italy, Greece and Finland as well as Latvia and Croatia (Map 4).

Map 4 Trend of agricultural land at NUTS-3 level and by Urban-Rural typologies, 2020 - 2040



Source: LUISA land-use map projections (EC-JRC)

Abolina E., Luzadis V.A., *Abandoned agricultural land and its potential for short rotation woody crops in Latvia, Land Use Policy*, Volume 49, 2015.

[19] Eurostat, *Eurostat regional yearbook 2017*, Publications office of the European Union, Luxembourg, 2017.

[20] Baumann, M., et al., *Patterns and drivers of post-socialist farmland abandonment in Western Ukraine*, Land Use Pol. 28, 552–562, 2011.

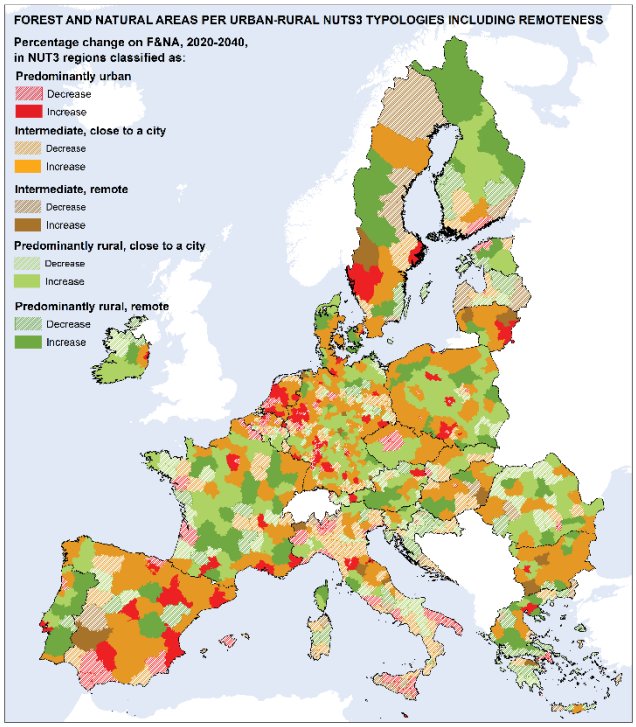
[21] EEA, *The European environment — state and outlook 2020 - Knowledge for transition to a sustainable Europe*, 2020. https://www.eea.europa.eu/publications/soer-2020

- Forests and natural areas are the basis for key eco-system services

Rural areas landscapes covered by **forests and natural areas** help regulate water flows, capture carbon and air pollutants from the atmosphere, prevent soil erosion and provide recreational services. Landscapes where open water and wetlands predominate are evidently important providers of water and water regulating services, mainly located in rural areas.[22]

By 2040, forest and natural areas are projected to increase by almost 1% at EU level (Map 5). The fastest increase is expected in rural areas close to a city (about 2%). Forest lands and natural areas will increase in most of the regions in Portugal, central and eastern part of Spain, France and central European countries as well as northern and eastern countries; however, north and south of Italy along with Croatia, south of Greece, Latvia and more disperse regions in Romania, western Germany and Belgium will experience a decline in forest and natural areas.

Map 5 Trend of forest and natural areas at NUTS-3 level and by Urban-Rural typologies, 2020 - 2040

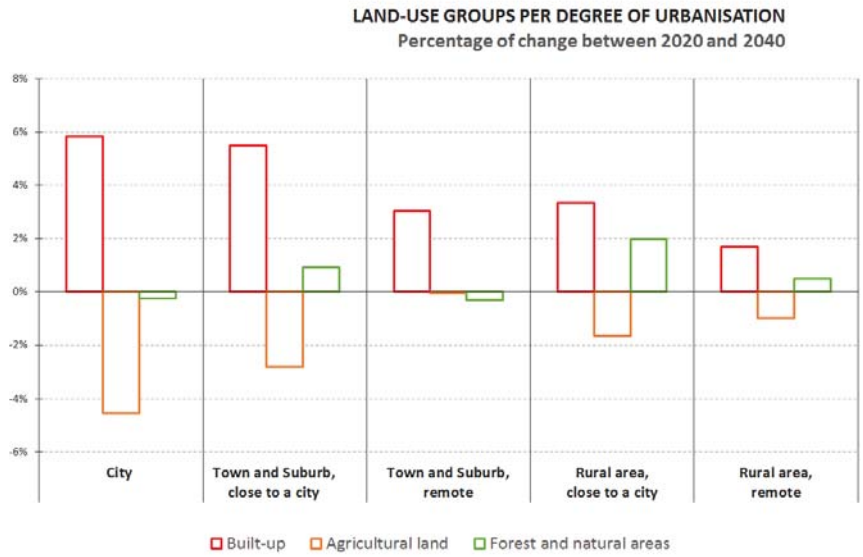


Source: LUISA land-use map projections (EC-JRC)

By 2040, built-up land is expected to grow by 3.4% in rural areas close to cities and by 1.7% in remote rural areas.

[22] Maes J., et al., *More green infrastructure is required to maintain ecosystem services under current trends in land-use change in Europe*, Landsc Ecol 30:517–534, 2015.

Figure 4 Percentage change between 2020 and 2040 by land-use group and Degree of Urbanisation



Source: LUISA land-use map projections (EC-JRC)

Rural areas are traditionally characterised as the places of natural resources, where they can be collected, pre-treated and pre-processed, and finally transported to major urban centers. This has put significant pressure on natural resources in rural areas where the (land-use) competition between the production of food, feed, timber and (bio)energy, together with urbanisation processes and environmental services, is considerably high.[23] The urban pressure also increases the consumption of the rural landscape, primarily by the housing sector but also by new economic activities, tourism/recreational or transport sectors. All these sectors claim rural space and might be a threat for the quality and identity of rural landscapes in some particular places (RURBAN project[24]).

[23] Hart K., et al., *Land as an Environmental Resource*, Report prepared for DG Environment, Institute for European Environmental Policy, London, 2013.

[24] Overbeek, M., Terluin, I.J., *Rural areas under urban pressure*, The Hague, Agricultural Economics Research Institute, LEI Wageningen UR. Report 7.06.01., 2006.

3.2. DEMOGRAPHY

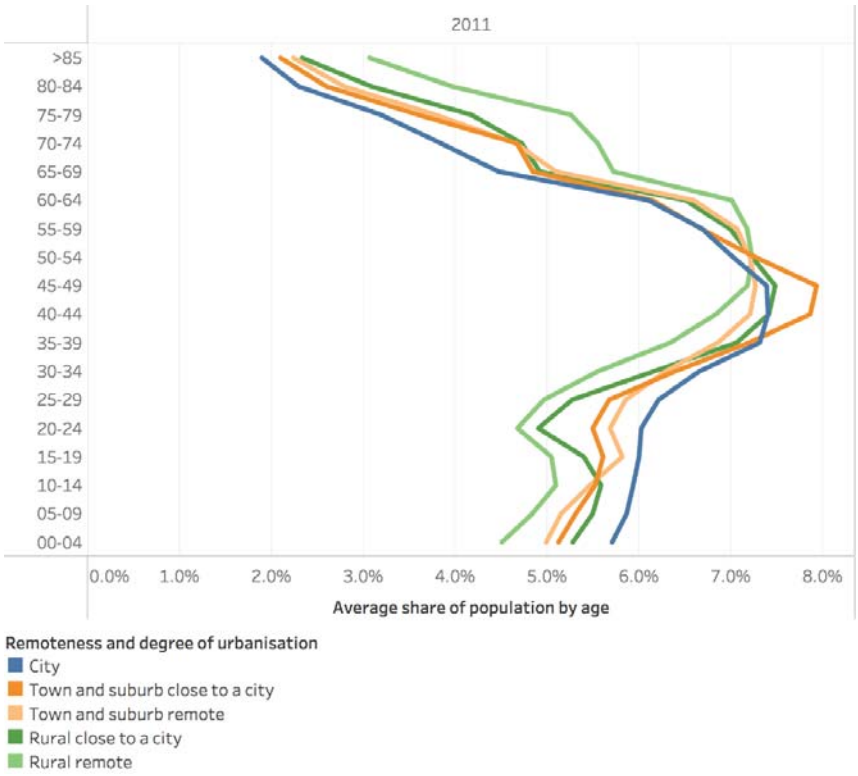
- People in rural areas and regions are on average older than in urban ones

In the EU, **rural areas have on average a significantly older population than towns and suburbs and especially cities**.[25] Cities in the EU have a higher share of the age classes 0 to 40, while rural areas have a higher share among the age classes of 50 and higher (Figure 5). This is even more pronounced in remote rural areas, which have lower shares of population below 50 than rural areas close to the city and higher shares of population of 50 and over.

The share of people in their 20s in rural areas is lower than the share of people in their 10s or 30s. This is likely due to people leaving rural areas to find their first job, explore different opportunities to pursue their career or to gain a tertiary education.

Towns and suburbs occupy an intermediate position between cities and rural areas with one clear exception. The population share of people in their 40s is the highest in towns and suburbs close to a city, which may be due to the appeal of suburban living for households with children.

Figure 5 Population share by age group and by Degree of Urbanisation including remoteness in the EU, 2011



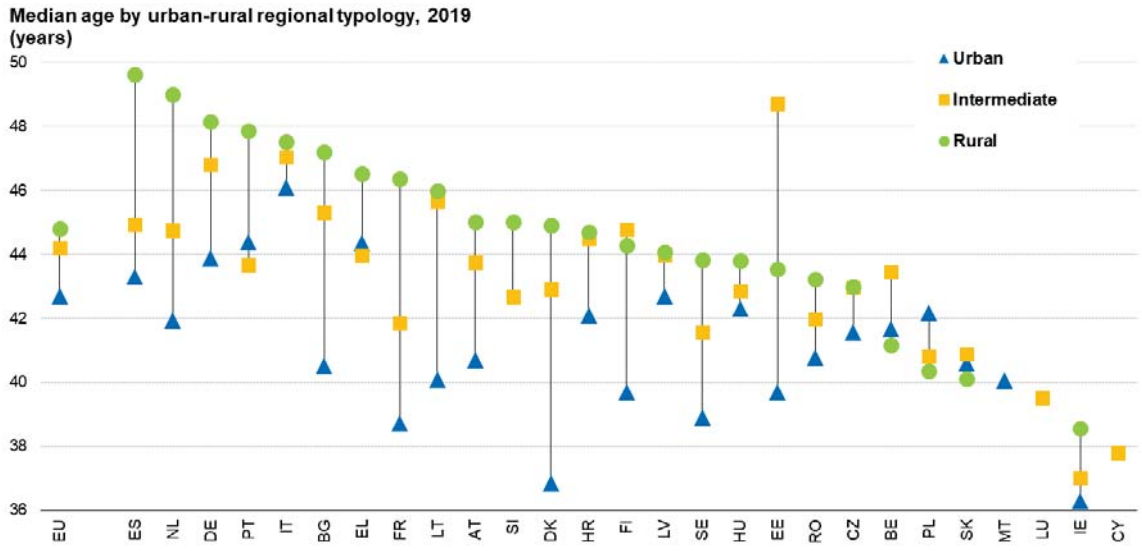
Source: Aurambout J.P., et al., *Demographic landscape of EU territories, 2021*.

[25] Aurambout J.P., et al., *Demographic landscape of EU territories, challenges and opportunities in diversely ageing regions*, Goujon A., et al. (eds.), Publications Office of the European Union, JRC123046., 2021. https://publications.jrc.ec.europa.eu/repository/handle/JRC123046

All the types of area also show a clear bulge in the population distribution with much higher shares of population in their 30s and 40s compared to younger age groups. This means that as the population ages, it will shrink because the younger cohorts are smaller. However, taking into account the population structure (Figure 5), this is likely to affect remote rural areas relatively more than other areas.

Regional data confirms the **rural population is significantly older than the urban population**. In 2019, the median age in rural regions was 45 years, two years higher than in urban regions in the EU (Figure 6). Within almost all Member States[26], rural regions had a higher median age than urban regions in 2019. Eurostat projections suggest that the median age will increase almost by four years in all the types of regions between 2020 and 2040.

Figure 6 Median age by urban-rural regional typology, 2019 (years)



Source: Source: (online data table: demo_r_pjanind3)

- More young women leave rural regions than young men

Women aged between 20 and 44 are more likely to move out of rural regions and intermediate regions than men are (Table 5). As a result, per 100 women in that age group there were 106 men in rural regions and 104 men in intermediate regions. Remote intermediate regions have slightly more men in that age group relative to women compared to intermediate regions close to a city. For rural regions, remoteness does not seem to affect the balance between men and women in this age group. Since 2014, this skewed distribution of young men and women has become more pronounced. In both intermediate and rural regions, for every 100 women aged 20-44, the number of men grew by one, while in urban regions number of men in this age group remained equal to the number of women (Table 5).

[26] With both an urban and a rural region.

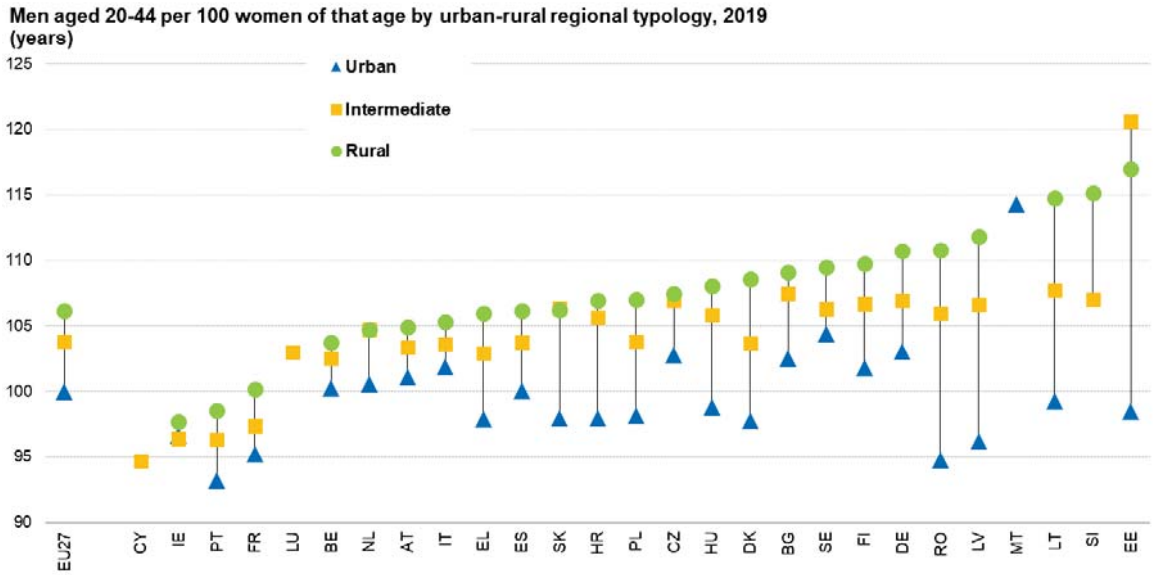
Table 5 Men aged 20-44 per 100 women of that age by urban-rural regional typology in the EU, 2014 and 2019

	Urban	Intermediate			Rural			EU
		Close	Remote	Total	Close	Remote	Total	
Men aged 20-44 per 100 women of that age, 2019	100	104	105	104	106	106	106	103
Men aged 20-44 per 100 women of that age, 2014	100	103	104	103	105	105	105	102

Source. : (online data table: demo_r_pjangrp3)

The higher number of men aged 20 to 44 per 100 women of that age in rural regions as compared to urban region can be observed in all Member States[27], but the intensity varies. In Ireland, the difference between the rural and urban region for this ratio is just one man, while in Estonia it is 19 men (Figure 7).

Figure 7 Men aged 20-44 per 100 women of that age by urban-rural regional typology, 2019



Source: (online data table: t demo_r_pjangrp3)

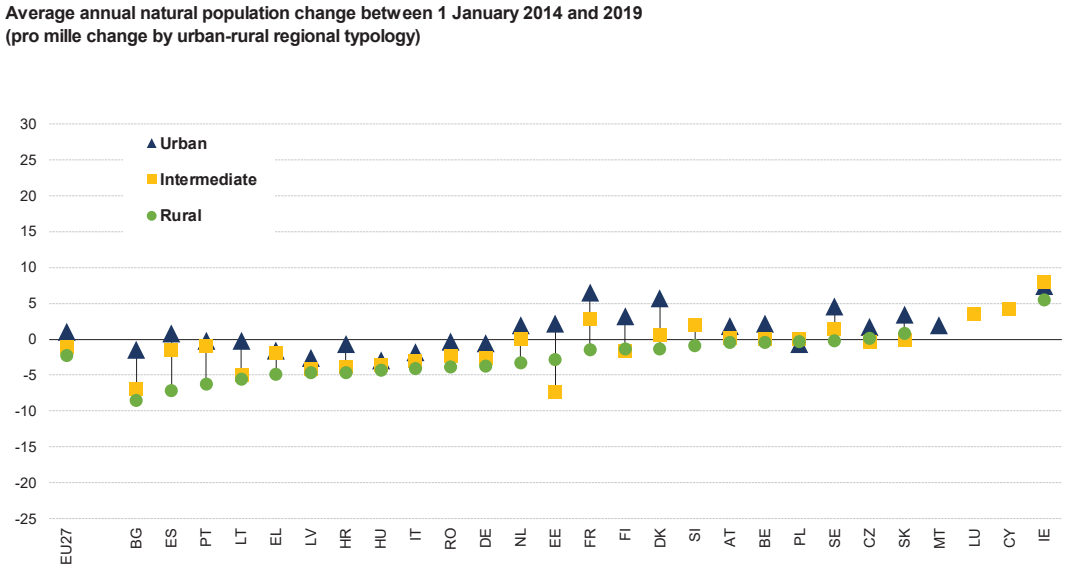
Note: ranked on rural, if not available on intermediate, if not available on urban value

[27] With both an urban and a rural region.

- **Rural regions lose more population due to natural change and gain less population through migration compared to urban ones**

Between 2014 and 2019, average annual natural population change[28] in rural regions was -2.3 per 1000 residents compared to -1.2 in intermediate regions and +1.0 in urban ones (Figure 8). In all the Member States[29], except Poland, natural population growth was lower in rural regions than in urban ones. Between 2014 and 2019, natural change was positive in rural regions in only three Member States compared to 10 Member States for intermediate regions and 13 Member States for urban regions.

Figure 8 Average annual natural population change between 1 January 2014 and 2019 (per mille change by urban-rural regional typology)



Source: Eurostat (online data table: DEMO_R_GIND3)
Note: ranked on rural, if not available on intermediate, if not available on urban value.

Source: Eurostat (online data table: demo_r_gind3)

Note: ranked on rural, if not available on intermediate, if not available on urban value.

Net migration[30] presents a different picture (Figure 9). Between 2014 and 2019, average annual net migration was positive in all three types of regions, but was lower in rural regions (0.6 per 1000 residents) than in urban regions (3.4). Net outmigration in rural regions occurred in 12 Member States (9 eastern Member States, Spain, Portugal and Finland), which among other factors, may be due to gap in GDP per head between urban and rural regions in those eastern

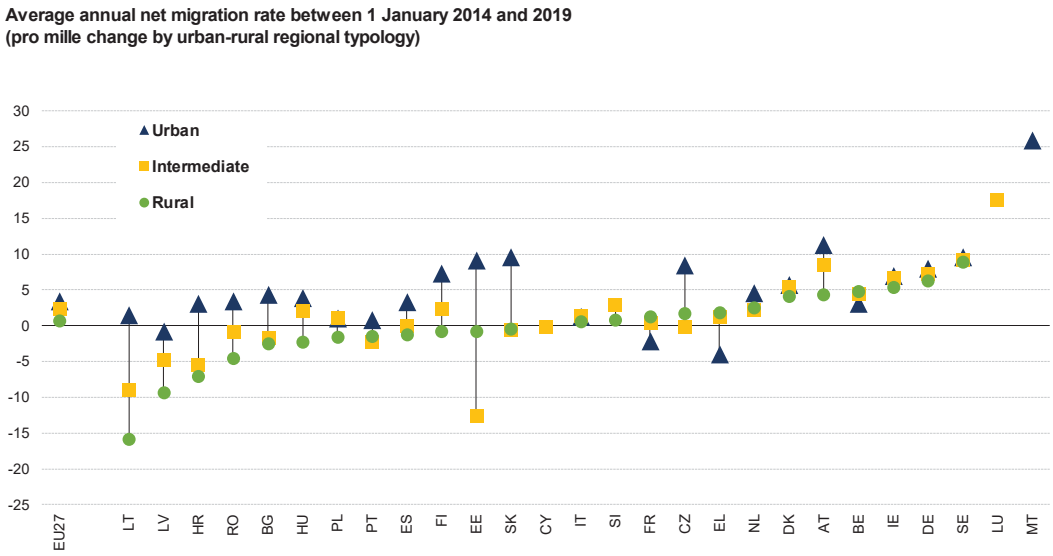
[28] Natural change equals births minus deaths.

[29] With both an urban and a rural region.

[30] Net migration should be calculated as people moving in minus people moving out. In the context of the annual demographic balance however, Eurostat produces net migration figures by taking the difference between total population change and natural change; this concept is referred to as net migration plus statistical adjustment.

Member States. Net outmigration was also quite common in intermediate regions, affecting 10 Member States, while relatively rare for urban regions affecting only 3 Member States (France, Greece and Latvia).

Figure 9 Average annual net migration rate between 1 January 2014 and 2019 (pro mille change by urban-rural regional typology)



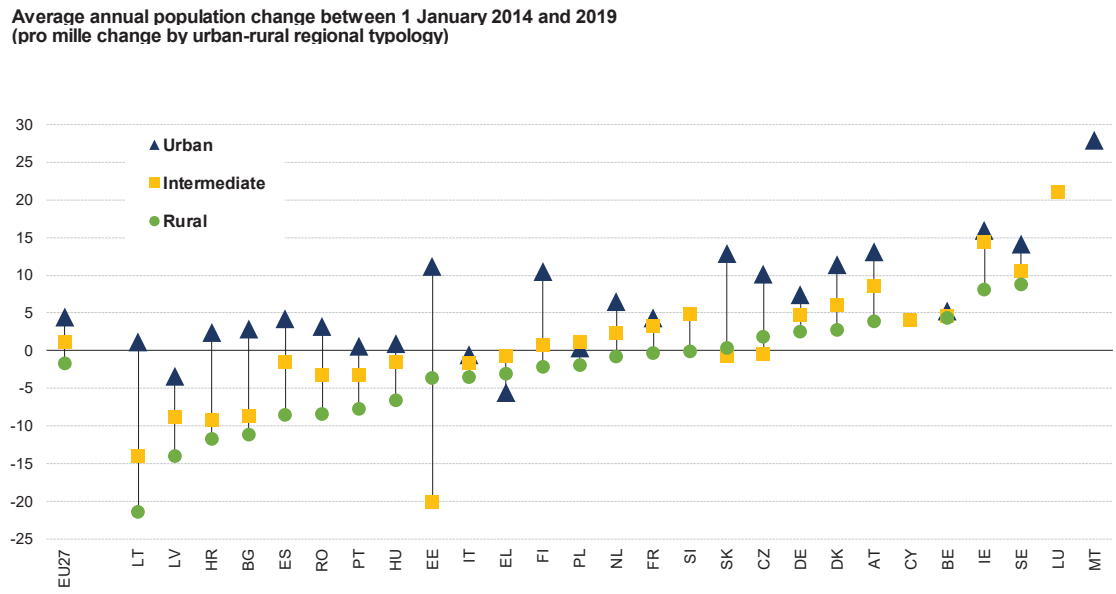
Source: Eurostat (online data table: DEMO_R_GIND3)
Note: ranked on rural, if not available on intermediate, if not available on urban value.

Source: Eurostat (online data table: DEMO_R_GIND3)

Note: ranked on rural, if not available on intermediate, if not available on urban value

Between 2014 and 2019, rural regions lost more population due to natural change and gained less population through net migration compared to urban ones. Rural regions lost population because positive net-migration was not high enough to offset the negative natural change (Figure 10). On the national level, it is often the same Member States whose rural regions face negative natural change and negative net migration at the same time. Intermediate regions gained population because their net migration was higher and their natural population change was less negative as compared to rural regions. Urban regions experience the highest population growth through a combination of positive natural change and positive net migration.

Figure 10 Average annual population change between 1 January 2014 and 2019 (pro mille change by urban-rural typology)

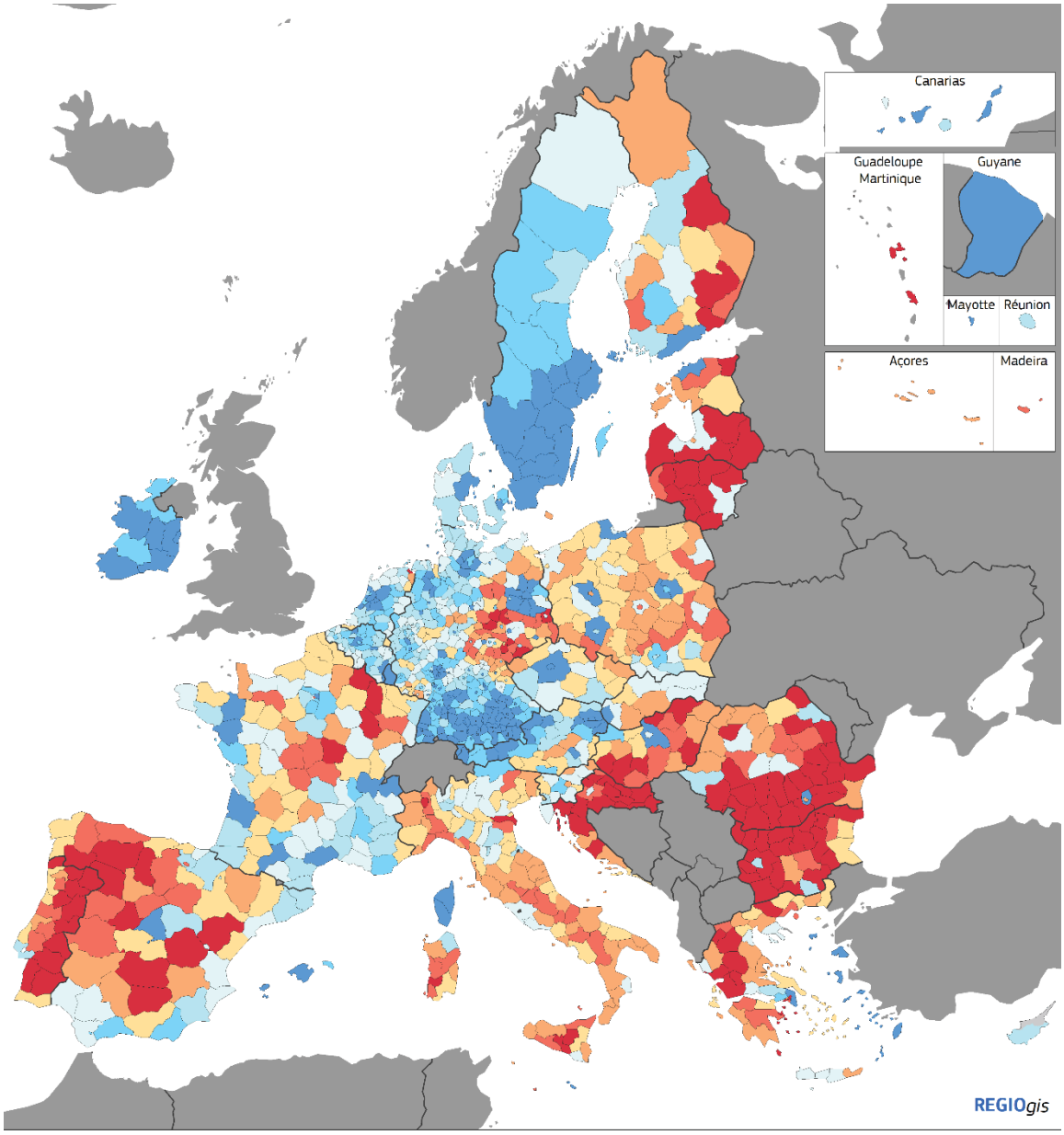


Source: Eurostat (online data table: DEMO_R_GIND3)

Source: Eurostat (online data table: DEMO_R_GIND3)

Note: ranked on rural, if not available on intermediate, if not available on urban value

Map 6 Average annual crude population growth rate in NUTS-3 regions, 2014-2019



Average annual crude population growth rate in NUTS3 regions, 2014-2019

Promille

< -7.5	0 - 2.5
-7.5 - -5	2.5 - 5
-5 - -2.5	5 - 7.5
-2.5 - 0	> 7.5

Source: DG REGIO based on Eurostat data

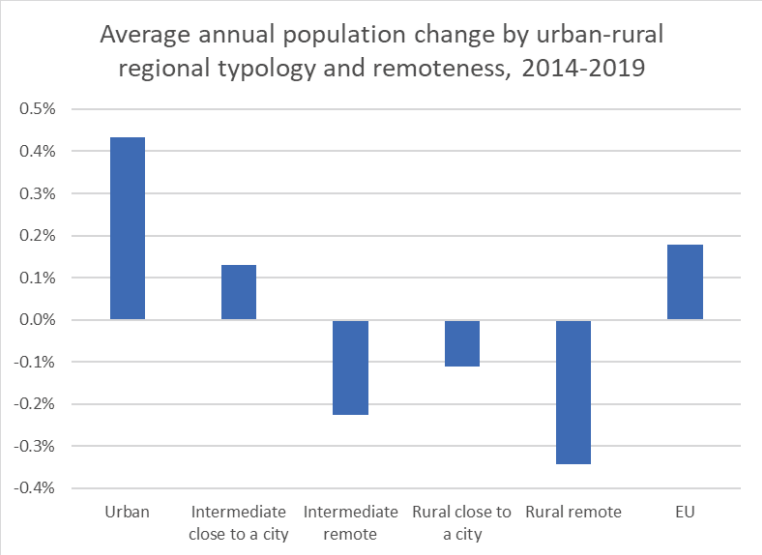
0 500 Km

Source: Eurostat (online data table demo_r_gind3)

- Remote regions, in particular rural ones, are losing population

Between 2014 and 2019, **population in remote rural regions reduced faster than in rural regions close to a city did** (-0.3% a year compared to -0.1%). Intermediate regions close to a city gained population over this period, while remote intermediate regions saw their population shrink (Figure 11).

Figure 11 Average annual population change by urban-rural regional typology and remoteness, 2014 - 2019



Source: Eurostat (online data table: demo_r_gind3)

Table 6 Demographic indicators by urban-rural regional typology including remoteness

EU-27	Urban	Intermediate			Rural		
		Close	Remote	Total	Close	Remote	Total
Average annual population change 2014-2019, in pro mille	4.4	1.3	-2.3	1.2	-1.1	-3.5	-1.7
Average annual natural population change 2014-2019, in pro mille	1.0	-1.1	-1.6	-1.2	-1.9	-3.4	-2.3
Average annual net-migration rate 2014-2019, in pro mille	3.4	2.4	-0.6	2.3	0.8	-0.1	0.6
Median age in years, 2019	42.7	44.2	44.6	44.2	44.4	45.9	44.8
Change in median age in years, 2014-2019	1.1	1.4	1.8	1.4	1.7	1.7	1.7

Source: (online data table: demo_r_pjangrp3, demo_r_gind3)

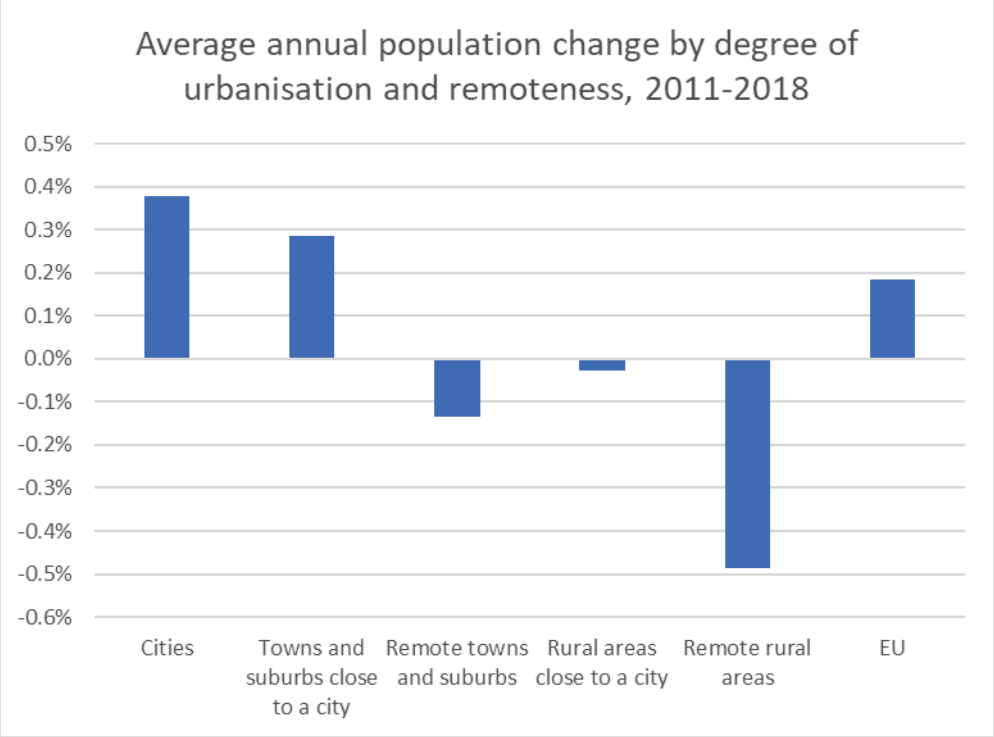
The population reductions in remote regions between 2014 and 2019 are mainly due to negative natural changes. In remote rural regions, annual average natural change is -3.4 per thousand and -0.1 for net migration. In both cases this is clearly less favourable than for urban or intermediate regions. In remote intermediate regions is the impact of natural change (-1.6) is also bigger than of net-migration (-0.6).

In rural regions close to a city, net-migration is positive (0.8) but not high enough to offset the negative natural change (-1.9). By contrast, net-migration (2.4) in the intermediate regions close to a city is high enough to offset negative natural change (-1.1).

The median age in remote rural regions (45.9) is 1.5 years higher than in rural regions close to a city (44.4) and 3.2 years higher than in urban regions (42.7). Changes in the median age in the two types of rural regions have been similar (1.7) and remote intermediate regions experience a similar increase (1.8).

Measuring the impact of remoteness at the local level reveals an even greater impact. The population in rural areas close to a city saw a small reduction of 0.03% a year between 2011 and 2018, while population in remote rural areas reduced by 0.49% a year (Figure 12). Remoteness also had a clear impact on towns and suburbs, with population growth of 0.29% a year in the ones close to a city compared to a reduction of 0.13% a year in the remote ones.

Figure 12 Average annual population change by Degree of Urbanisation and remoteness, 2011-2018



Source: JRC and DG REGIO based on Eurostat and JRC data (Census Hub)

- Depopulation

The European Commission report on the impact of demographic change[31] highlighted that slow changes in population are less costly to adapt to than fast changes. It also highlighted that rapid population reductions were more common in (poor) rural regions than in other regions.

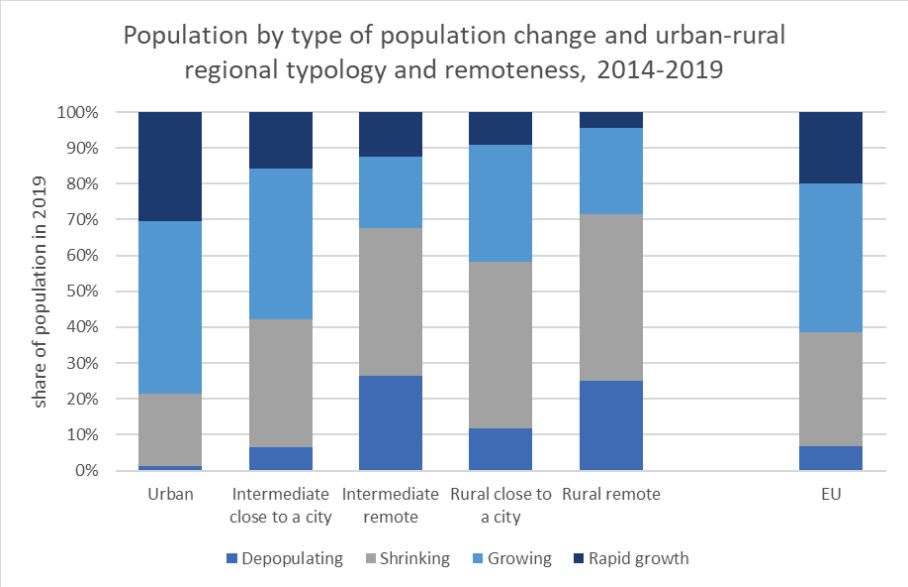
[31] COM (2020)241 *Communication on the impact of demographic change*.

To identify a region that is **depopulating**, in the sense of experiencing **a *sustained and substantial reduction of its population***, this document uses the threshold of an average annual crude population change per 1000 residents of -7.5 for the period 1/1/2014 to 1/1/2019. This level ensures that only regions that have lost population every year during that five year period are defined as depopulating. To identify local administrative units (LAU) that are depopulating, this document uses an average annual crude population change per 1000 residents of -10.0 for the period 1/1/2011 to 1/1/2018[32].

Remote rural regions and remote intermediate regions are far more likely to experience a reduction in population and depopulation. Around 70% of the population in a remote region lives in a shrinking region and around 25% lives in a depopulating region. In the EU as a whole, 39% of the population lives in a shrinking region and 7% lives in a depopulating region. At the same time, 'rurality' also plays a role as the depopulation phenomena is similar in remote rural and intermediate regions, but stronger in rural regions close to a city than in intermediate regions close to a city (and in all cases stronger than in urban regions).

Rapid population growth, i.e. of more than 7.5 per 1000 residents a year, is more prevalent in urban regions (30% of the urban population), but is also affects rural regions close to a city (9%), albeit clearly less than all other categories of regions.

Figure 13 Population by type of population change and urban-rural regional typology and remoteness, 2014-2019



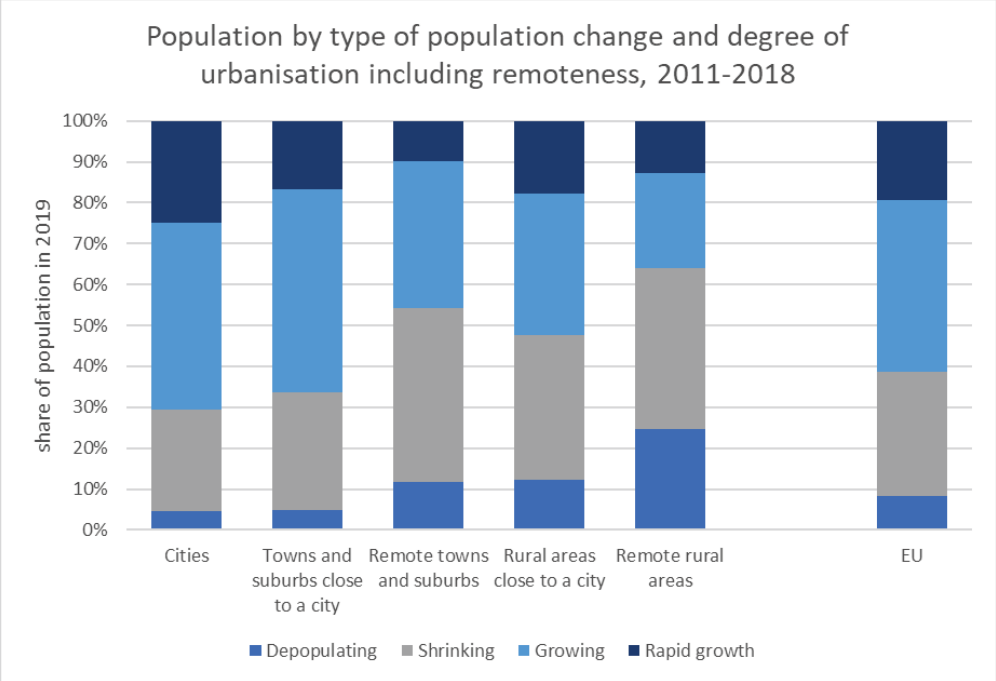
Source: JRC and DGREGIO based on Eurostat data (demo_r_pjanaggr3)

At the local level, the same pattern can be observed. Remote areas are more likely to experience population reductions and depopulation (Figure 14). Of the remote rural area population, 25% lives in a depopulating area. The risk of depopulation for remote towns and suburbs and rural areas close to a city is similar (Figure 14), but remote towns and suburbs are slightly more like to lose population. At the same time, 'rurality' also plays a role as the depopulation phenomena is

[32] Because annual LAU population data is not available, a longer time period had to be used. Because population changes at the local level have higher variability, a higher threshold had to be used.

stronger in remote rural areas than in remote towns and suburbs and, likewise, stronger in rural areas close to a city than in towns and suburbs close to a city (as well as cities).

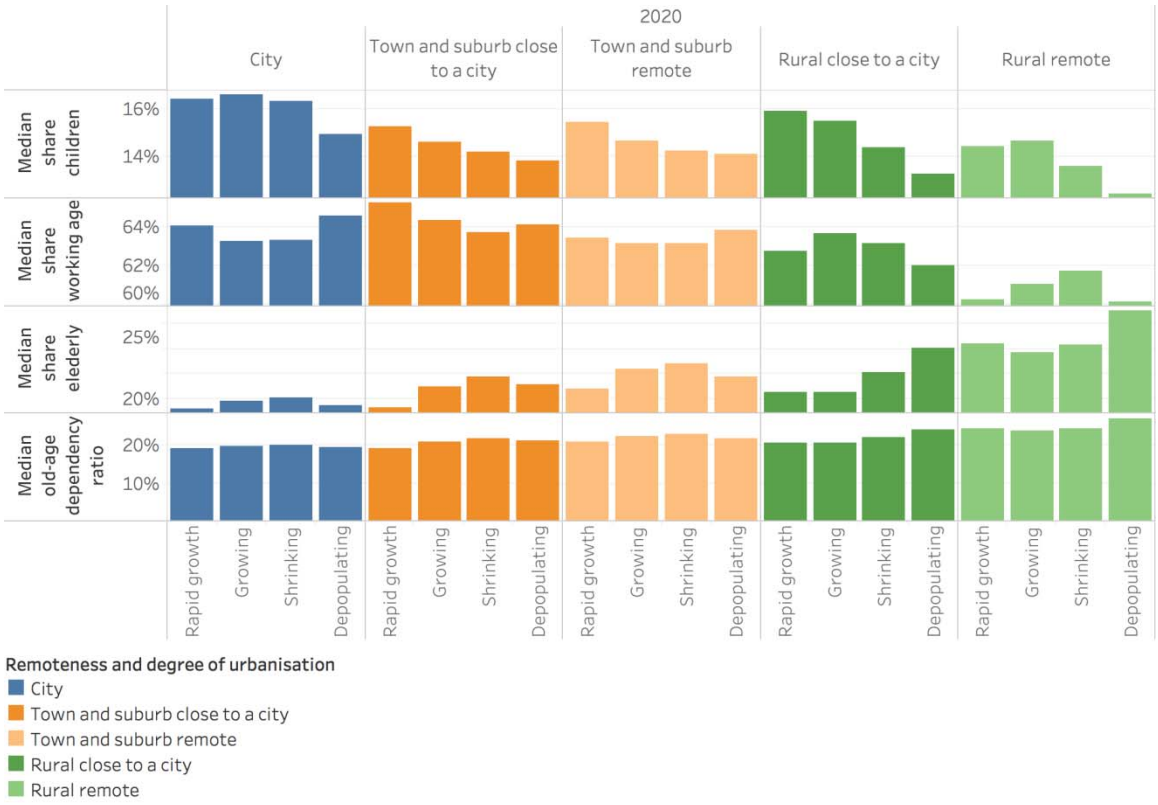
Figure 14 Population by type of population change and Degree of Urbanisation including remoteness, 2011-2018



Source: Eurostat and JRC-GEOSTAT 2018 (Census Hub)

The type of population change has an impact on several key demographic indicators. For example, remote rural areas that are depopulating have a lower median share of children, of working age population and a higher median share of elderly and old age dependency ratio compared to remote rural areas that have a slowly shrinking population or a (rapidly) growing one. This pattern can also be seen in the other areas (Figure 15). This underlines that demographic changes affect all areas.

Figure 15 Median values for main demographic indicators (2020) across LAUs classified by depopulation, Degree of Urbanisation and remoteness



Source: JRC elaboration based on the LUISA demographic projections

Note: Local depopulation is defined as average annual percentage difference between 2018 and 2011 lower than -1%. The Degree of Urbanisation and remoteness are defined according to the 2011 classification. The 2020 data is estimated on the basis of demographic projections at high spatial resolution starting from the Census data of 2011.

- The rural working age population is shrinking, mainly due to the age structure of its population

The working age population has been shrinking at the EU level for a decade[33]. As a result, the majority (61%) of the EU population lives in a region that experienced a reduction in its working age population between 2015 and 2019 (Table 7). The rural population, however, is almost twice as likely to live in a region with shrinking working age population as the urban population (83% vs 44%).

In urban, intermediate and rural regions, a reduction of the working age population is mostly due to the negative impact of the age structure and much less due a negative effect of migration. Remoteness again comes into the picture as in the remote regions with a shrinking working age population, more people live in a region with a negative effect of both migration and the age structure compared to the non-remote regions. A bigger share of the rural population lives in a

[33] Eurostat online data table (demo_pjanbroad)

region where the working age population shrinks due to the negative impact of both the age structure and migration (20%) as compared to intermediate (12%) and urban regions (10%).

Of the population in rural regions, 17% lives in regions with a growing working age population, compared to 56% in urban regions and 32% in intermediate regions. The growth of working age population is primarily due to the positive effect of migration; a positive impact of the age structure is quite rare.

Table 7 Population share in regions by type of working age population change, 2015-2019

Change in working age population, 2015-2019		Negative				Positive			
Effect of migration		Negative	Negative	Positive	Total	Negative	Positive	Positive	Total
Effect of age structure and mortality		Negative	Positive	Negative		Positive	Negative	Positive	
Type of region									
Urban		10%	1%	32%	44%	2%	46%	9%	56%
Intermediate	Close	10%	1%	56%	67%	1%	31%	1%	33%
	Remote	33%	0%	49%	82%	0%	18%	0%	18%
	Total	12%	1%	56%	68%	1%	30%	1%	32%
Rural	Close	19%	0%	63%	82%	0%	14%	4%	18%
	Remote	25%	0%	61%	86%	0%	10%	4%	14%
	Total	20%	0%	62%	83%	0%	13%	4%	17%
EU		13%	1%	48%	61%	1%	33%	5%	39%

Source: JRC calculations based on Eurostat data

- Demographic projections

The most recent Eurostat population projections (Table 8) indicate that the EU population is roughly stable and is likely to start shrinking from 2025 onwards. This general trend will in turn affect rural, intermediate and urban regions. Rural regions were already losing population during the last two decades and are projected to continue to do so for at least the next forty years. The population in intermediate regions is still growing, but it is projected to start shrinking from 2025 onwards. The population of urban regions is last to start shrinking, with reductions occurring from 2045 onwards. Remote intermediate and rural regions are shrinking faster than regions close to a city and these differences are projected to continue.

Table 8 Population change by urban-rural regional typology including remoteness, 2014-2060

Average annual population change, in pro mille

	Urban	Intermediate			Rural			EU
		Close	Remote	Total	Close	Remote	Total	
2014-2019	4.4	1.3	-2.3	1.2	-1.1	-3.5	-1.7	1.8
2020-2025	3.4	0.1	-1.9	0.0	-2.7	-3.9	-3.0	0.7
2025-2030	2.0	-0.6	-2.1	-0.7	-2.9	-4.1	-3.2	-0.1
2030-2035	1.4	-0.9	-2.1	-0.9	-2.8	-3.9	-3.1	-0.4
2035-2040	0.9	-1.1	-2.1	-1.2	-2.8	-3.8	-3.1	-0.7
2040-2045	0.5	-1.5	-2.4	-1.5	-3.0	-3.9	-3.3	-1.0
2045-2050	-0.1	-1.9	-2.6	-2.0	-3.4	-4.1	-3.6	-1.5
2050-2055	-0.6	-2.3	-2.9	-2.4	-3.5	-4.2	-3.7	-1.9
2055-2060	-1.0	-2.6	-3.0	-2.6	-3.5	-4.0	-3.7	-2.1

Source: Eurostat (online data tables: demo_r_pjangrp3 and proj_19rp3)

These different demographic trends will lead to a lower rural population share in 2060 (-2 pp), lower intermediate population share (-1 pp) and higher urban population share (+3 pp) (Table 9). These small changes in the urban and rural population shares over a period forty years show the continuation of a slow process of urbanisation in the EU.

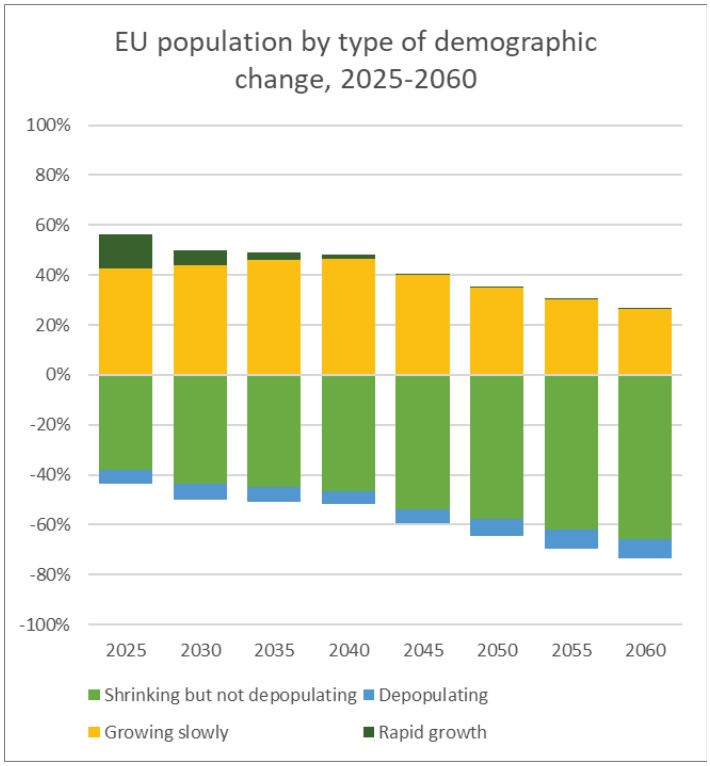
Table 9 Population share by urban-rural regional typology in the EU 1961-2060, in %

	1961	1971	1981	1991	2001	2011	2020	2030	2040	2050	2060
Predominantly urban	**35.5**	**37.4**	**38.0**	**38.1**	**38.3**	**39.4**	**40.3**	**41.3**	**42.0**	**42.6**	**43.1**
Intermediate, close to a city	36.4	36.3	36.4	36.5	36.7	36.6	36.4	36.2	36.0	35.9	35.7
Intermediate, remote	3.1	2.8	2.7	2.7	2.6	2.5	2.5	2.5	2.4	2.4	2.4
Intermediate	**39.5**	**39.1**	**39.1**	**39.2**	**39.4**	**39.2**	**38.9**	**38.6**	**38.4**	**38.3**	**38.1**
Predominantly rural, close to a city	17.3	16.6	16.2	16.2	16.0	15.5	15.0	14.6	14.2	14.0	13.8
Predominantly rural, remote	7.7	7.0	6.6	6.5	6.3	6.0	5.7	5.5	5.3	5.2	5.1
Predominantly rural	**25.0**	**23.5**	**22.9**	**22.7**	**22.3**	**21.5**	**20.8**	**20.1**	**19.6**	**19.1**	**18.8**
EU27	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Eurostat (online data table: demo_r_pjangrp3, proj_19rp3) and JRC-GEOSTAT

The EU population is projected to shrink from 2026 onwards. As a result the share of the EU population living in a region that lost population in the five preceding years will increase from around 40% in 2020 to 75% in 2060. (Figure 16).

Figure 16 EU population by type of demographic change, 2025-2060

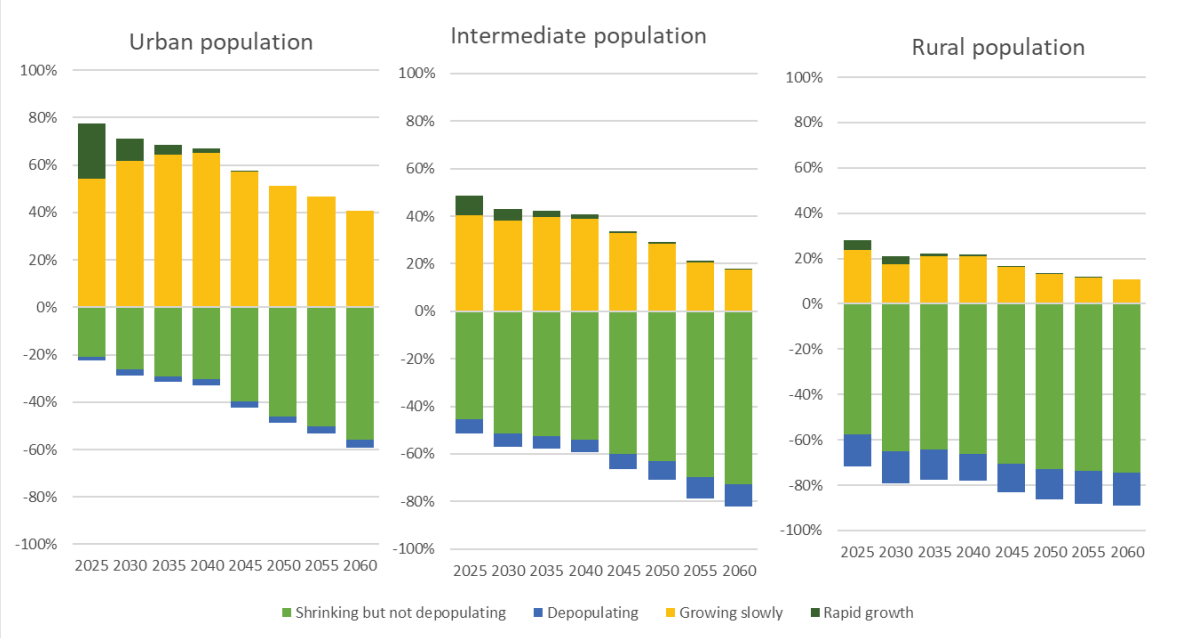


Source: Eurostat (online data table proj_19rp3)
Note: rapid growth (>7.5 per mille a year), growing slowly (0 – 7.5), shrinking but not depopulating (-7.5 – 0), depopulating (<-7.5).

The consequences of these EU level changes can be seen in all three types of regions with a steady increase over time of the share of people living in a shrinking region. Up to 2060, rural

regions maintain the highest share of population in regions with a shrinking population and in depopulating regions.

Figure 17 EU population in urban, intermediate and rural regions by type of population change, 2025-2060



Source: Eurostat (online data table proj_19rp3)
Note: rapid growth (>7.5 per mille a year), growing slowly (0 – 7.5), shrinking but not depopulating (-7.5 – 0), depopulating (<-7.5).

- Conclusions and outlook

The EU population is expected to continue to age and to start shrinking during the next decade. Rural regions today already have an older population than the other regions do and are more likely to have a shrinking population, due to (higher) negative natural change in population and a less positive net migration rate. Remote rural regions face a particularly difficult situation. In many ways, rural regions are ahead of the demographic curve at the EU level because over the next decades more and more other regions will also experience ageing and population decreases.

Rural regions will have to develop policies that manage population changes and ensure that they do not affect their quality of life or hurt their economy and social systems. Innovative technological and organisational solutions in terms of digitalisation or green mobility may help regions to manage demographic changes, while contributing to perspectives for people to stay in rural areas or discover them as attractive living spaces, to minimise disruptions to their economy and to maintain a high quality of life or improve it.

3.3. LABOUR AND EDUCATION

This section describes the situation of rural regions with regard to employment, unemployment, education and training, including a comparison with urban areas and analysis of gender.[34]

- Employment and unemployment have improved in rural areas since 2012

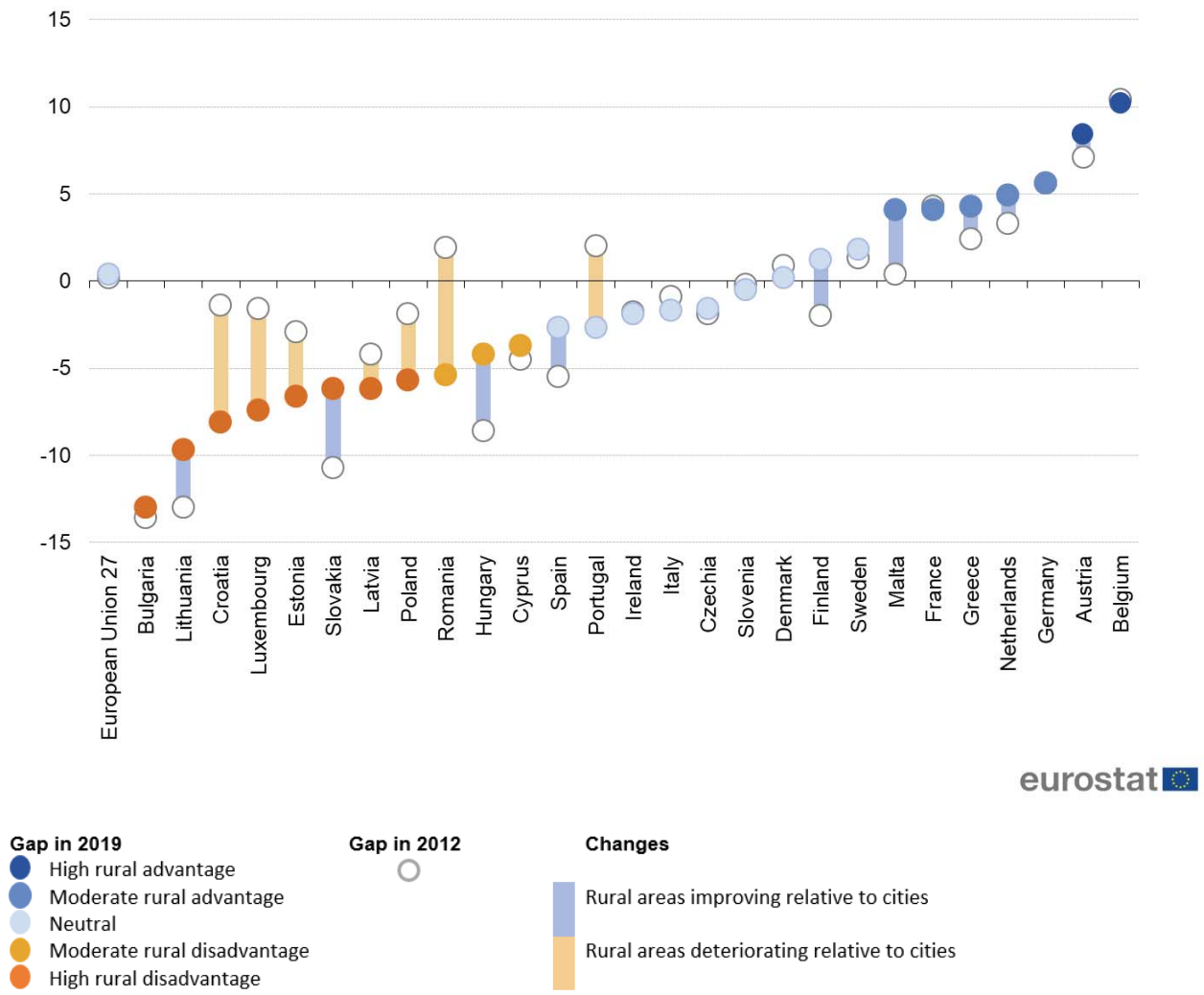
Since 2012, the employment rate for the population aged 20-64 in rural areas increased in all Member States. At the EU level, it increased from 68% to 73% in 2019. At the same time, the unemployment rate in rural areas dropped in all Member States. At the EU level, it dropped from 10.4% to 5.7%.

At EU level, there was no difference in the employment rates (20–64) in rural areas and cities in 2019 (both 73%). This is a result of very diverse situations in the Member States. The biggest rural advantage was registered in Belgium, followed by Austria; while the largest rural disadvantage was registered in Bulgaria, followed by Lithuania. This situation has been relatively stable at the EU level since 2012, but in some Member States, rural areas improved relative to cities while in others they deteriorated (in particular in Romania and Croatia).

[34] The analysis was conducted using data available on 1 March 2021. More recent Labour Force Survey data has since been published and can be found here: https://ec.europa.eu/eurostat/web/degree-of-urbanisation/data/database

For the analysis of employment in 2020 see European Commission, *Employment and Social Developments in Europe 2021 Annual Review*, 2021. *forthcoming*

Figure 18 Gap analysis - Employment rate of people aged 20-64 years in rural areas compared to cities in 2012 and 2019



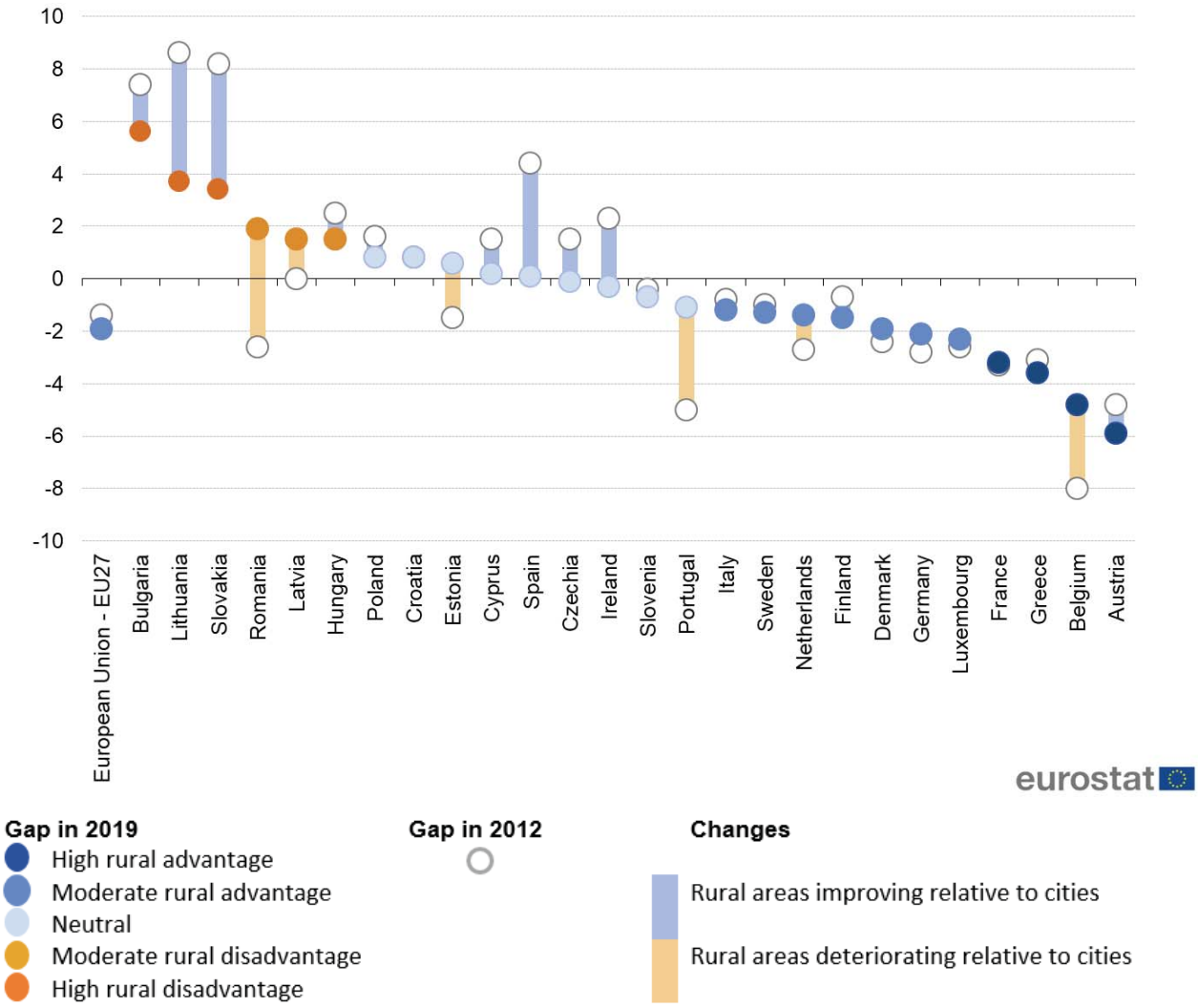
(percentage point difference between rural areas and cities)

Source: Eurostat (online data code: lfst_r_ergau)

At the EU level, the unemployment rate (15-74) was lower in rural areas than in cities in 2019. Eleven Member States showed a moderate to high rural advantage in comparison to cities in terms of unemployment rates, while only 6 Member States showed a moderate to high rural disadvantage. This rural advantage has increased slightly since 2012. This aggregate picture, however, hides changes in both directions. For example, Romania switched from a rural advantage in 2012 to a rural disadvantage in 2019.

Figure 19 Gap analysis - Unemployment rate of people aged 15-74 in rural areas compared to cities in 2012 and 2019

(percentage point difference between rural areas and cities)



Source: Eurostat (online data code: lfst_r_urgau)

These favourable overall dynamics mask different realities, notably a very diverse situation in the Member States and the situation **of young people**, who have a higher unemployment rate compared to the general working age population, also in rural areas. Unemployment for young people (15-24) in rural areas was 13.4% for 2019, while the EU-27 rural unemployment rate (15-74) was 5.7%.[35]

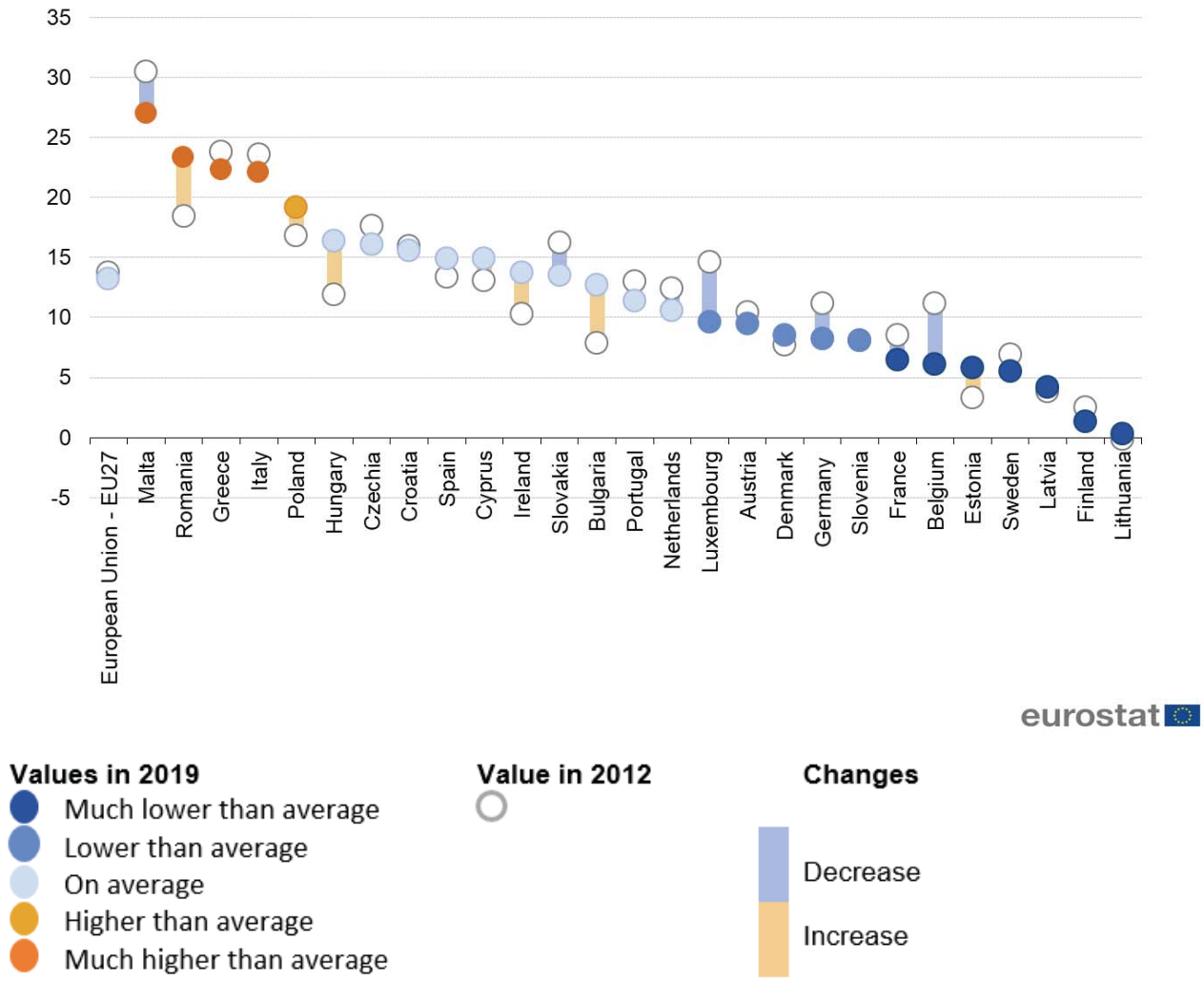
[35] Youth unemployment rates are higher than general unemployment rates throughout the EU, and in all types of areas. (online data code: lfst_r_urgau)

- **The employment gap between men and women is wider in rural areas than in cities**

The EU rural employment rate (for people aged 20-64) was 67% for women and 80% for men in 2019, which translates to a gender employment gap of 13 percentage points (pp). The gap was above 20 pp in Malta, Romania, Greece and Italy. The smallest gap was registered in Baltic and northern Member States. Since 2012, this gap has remained fairly stable at the EU level, but the trend at the Member State level varies with significant increases in the gap in Bulgaria, Hungary and Romania. By contrast, the gap shrunk especially in Belgium, Luxembourg, Malta, Slovakia and Germany.

Figure 20 Gender employment gap in rural areas in 2012 and 2019

(percentage points difference, male employment rate minus female employment rate, based on people aged 20-64 years)



Source: Eurostat (online data code: tepsr_lm230)

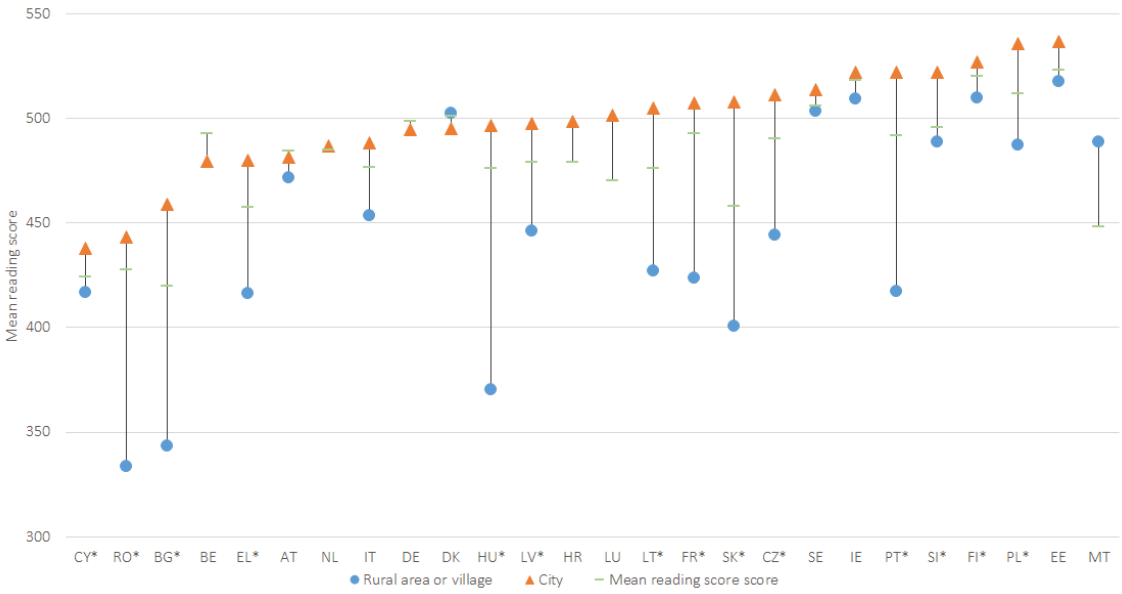
In 2019, the employment rate of city residents (for people aged 20-64) was 68% for women and 78% for men which translates to a gender employment gap of 10 pp[36]. The gender employment gap in cities was smaller than in rural areas because women are more likely to work in cities than in rural areas, while the opposite holds for men. Most Member States have a wider gender employment gap in rural areas than cities.

Despite overall increases in employment rates, this difference between the gender employment gap in cities and rural areas has not changed since 2012.

- **Early leavers and young people neither in employment nor in education or training are more in rural areas than in cities**

The OECD[37] Programme for International Student Assessment (PISA) 2018 shows that the **reading performance of 15-year-olds students** attending schools **in rural areas is significantly lower** than in cities.[38] The gap is rather large in many Member States. In Hungary, Bulgaria, Romania, Slovakia and Portugal it even exceeds 100 PISA score points, corresponding to approximately 2-3 years of schooling.

Figure 21 Reading performance by school location, PISA 2018



Source: OECD, PISA 2018 (2019).

Note: 40 score points in PISA test is equivalent to about one year of schooling. Data for ES not available. Countries are marked by * when the urban-rural gap is statistically significant.

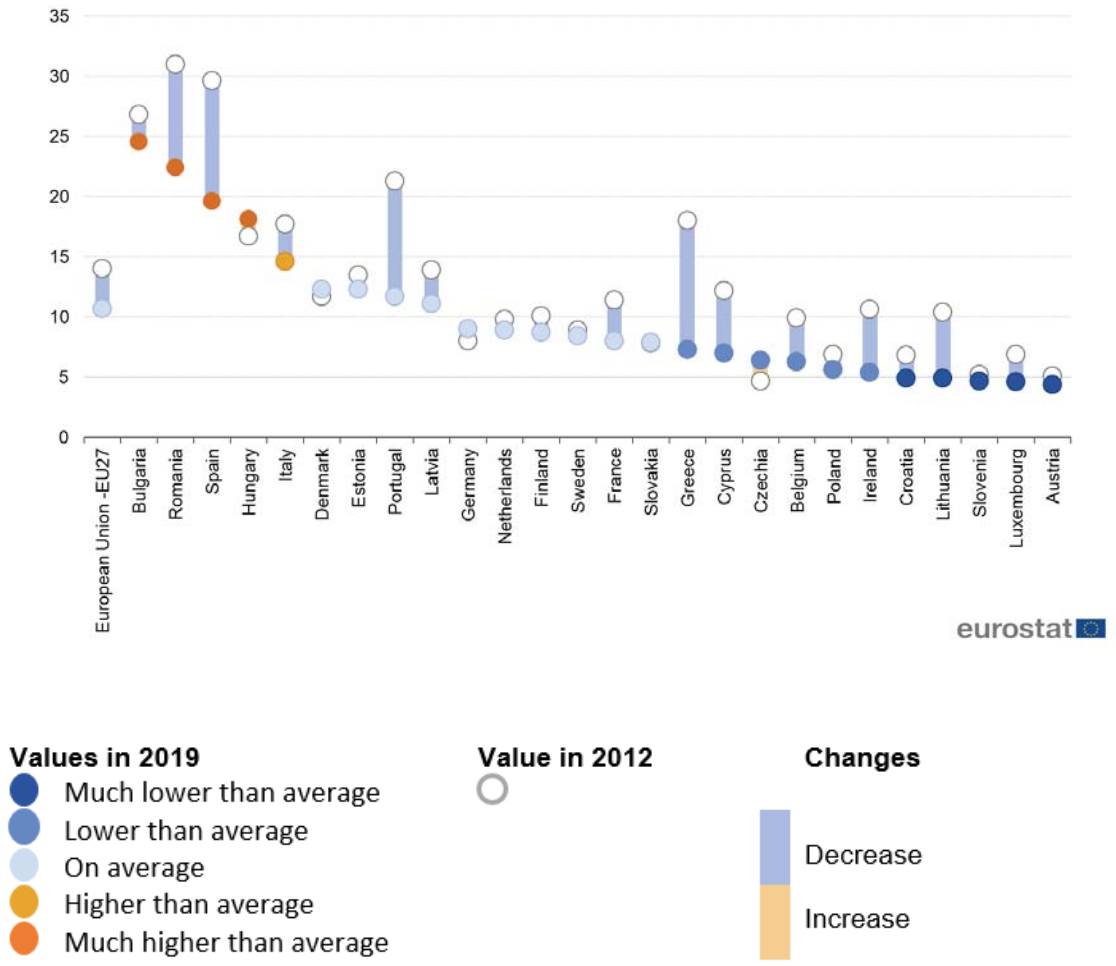
[36] Eurostat (online data code: tepsr_lm230)

[37] Organisation for Economic Cooperation and Development (OECD)

[38] For further details on school education in rural areas, see OECD, *Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change*, OECD Rural Studies, OECD Publishing, Paris, 2021. https://doi.org/10.1787/83025c02-en.

In 2019, **10.7% of young people** (aged 18-24) in EU rural areas were **early leavers from education and training**, in other words, they had completed at most a lower secondary education and were not in further education or training during the four weeks preceding the survey. Among the EU Member States, the proportion of early leavers in rural areas in 2019 ranged from 4.4% in Austria to 24.5% in Bulgaria. Since 2012 the rate has decreased in almost all Member States, with the largest decreases in Greece, Spain, Portugal and Romania.

Figure 22 Early leavers from education and training in rural areas in 2012 and 2019

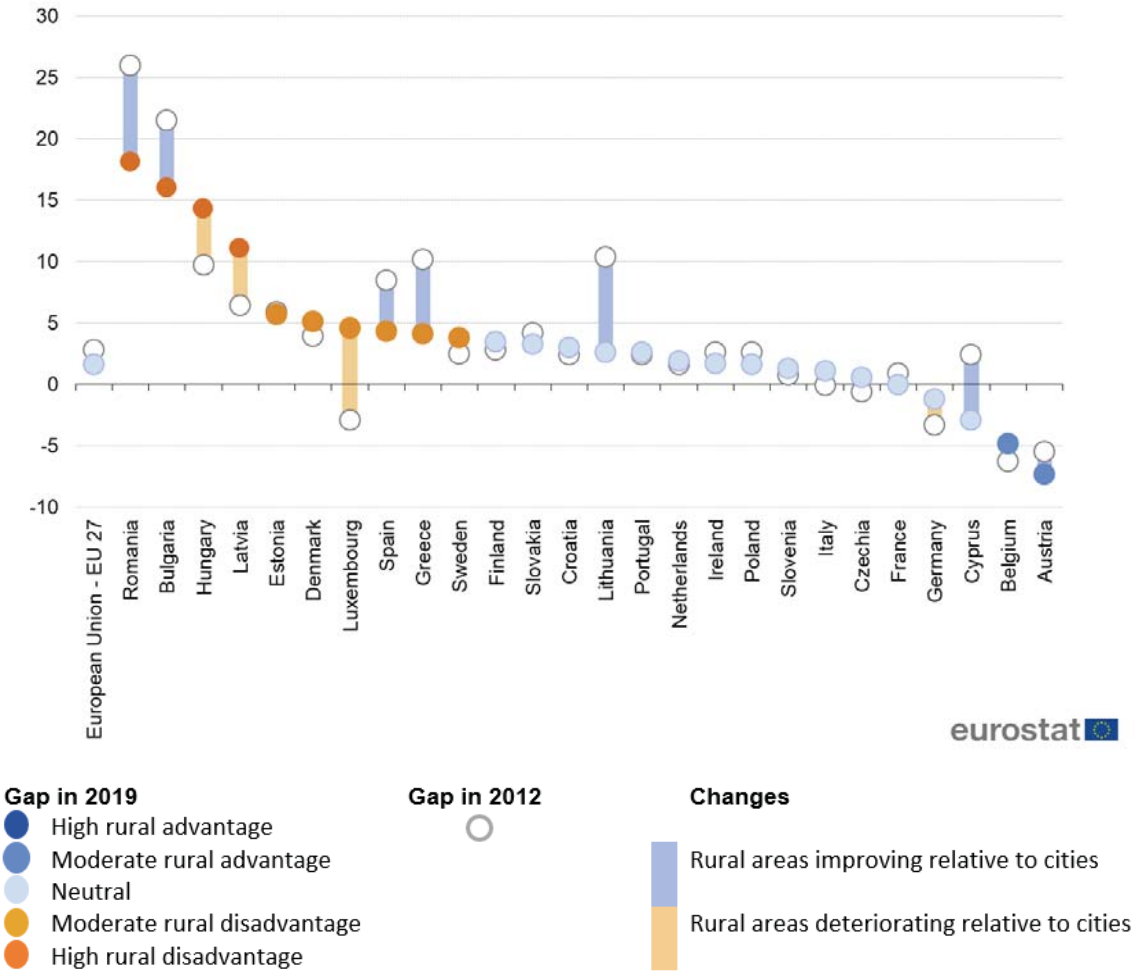


Note: Value for Malta is unreliable.
Source: Eurostat (online data code: edat_lfse_30)

At the EU level, **the early leaving rate was higher in rural areas (10.7%) and towns (11.2%) than in cities (9.1%) in 2019**. The gap is significant in Romania (where it reaches 18.1 pp), Bulgaria, Hungary and Latvia. In a few Member States the gap is negative, for instance, in Austria (-7.3 pp) and Belgium, which means that more young people in these Member States leave education prematurely in cities than in rural areas.

Figure 23 Gap analysis - Early leavers from education and training in rural areas in 2012 and 2019

(percentage point difference between rural areas and cities)



Note: Value for Malta is unreliable.

Source: Eurostat (online data code: EDAT_LFSE_30_)

The share of young people aged 15-29 years neither in employment nor in education or training (**NEET**) was highest in rural areas (13.6%) and lowest in cities in 2019 (11.7%). In 18 Member States the lowest rate was registered in cities[39]; these figures may reflect, to some degree, the concentration of educational establishments and job opportunities in cities.

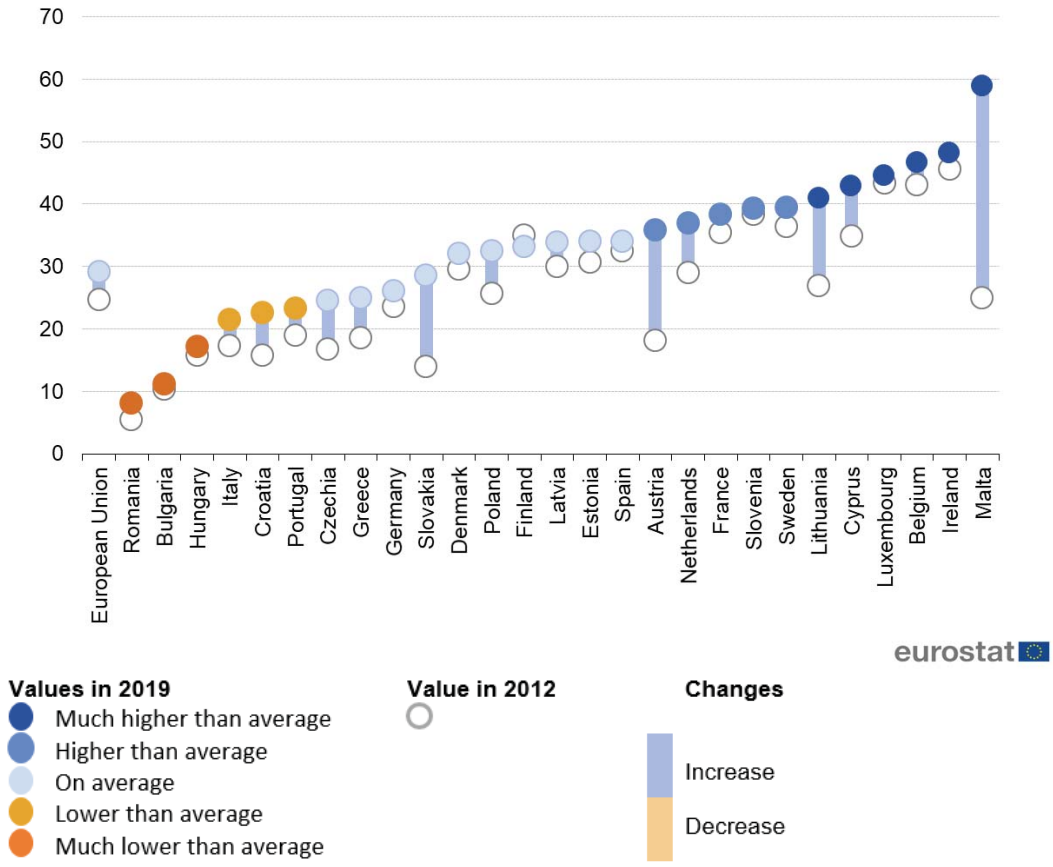
[39] Source: Eurostat (online data code: edat_lfse_29)

- **Tertiary education and digital skills are lower in rural areas than in cities**

The share of population aged 25-64 in rural areas with a tertiary education has increased over time from 18% in 2012 to 22% in 2019. The same pattern can be observed in all Member States, with all rural areas showing increase in the share of tertiary educated. The size of the increase however varied with big increases in Austria, Malta and Lithuania compared to very small increases in rural areas in Germany, Bulgaria and Romania. Despite these increases, however, the share of the tertiary educated is still significantly lower than in cities (where the share is 41%).

Figure 24 Tertiary education of 25–64-year-olds in rural areas in 2012 and 2019

(%, share of people aged 25-64 years)

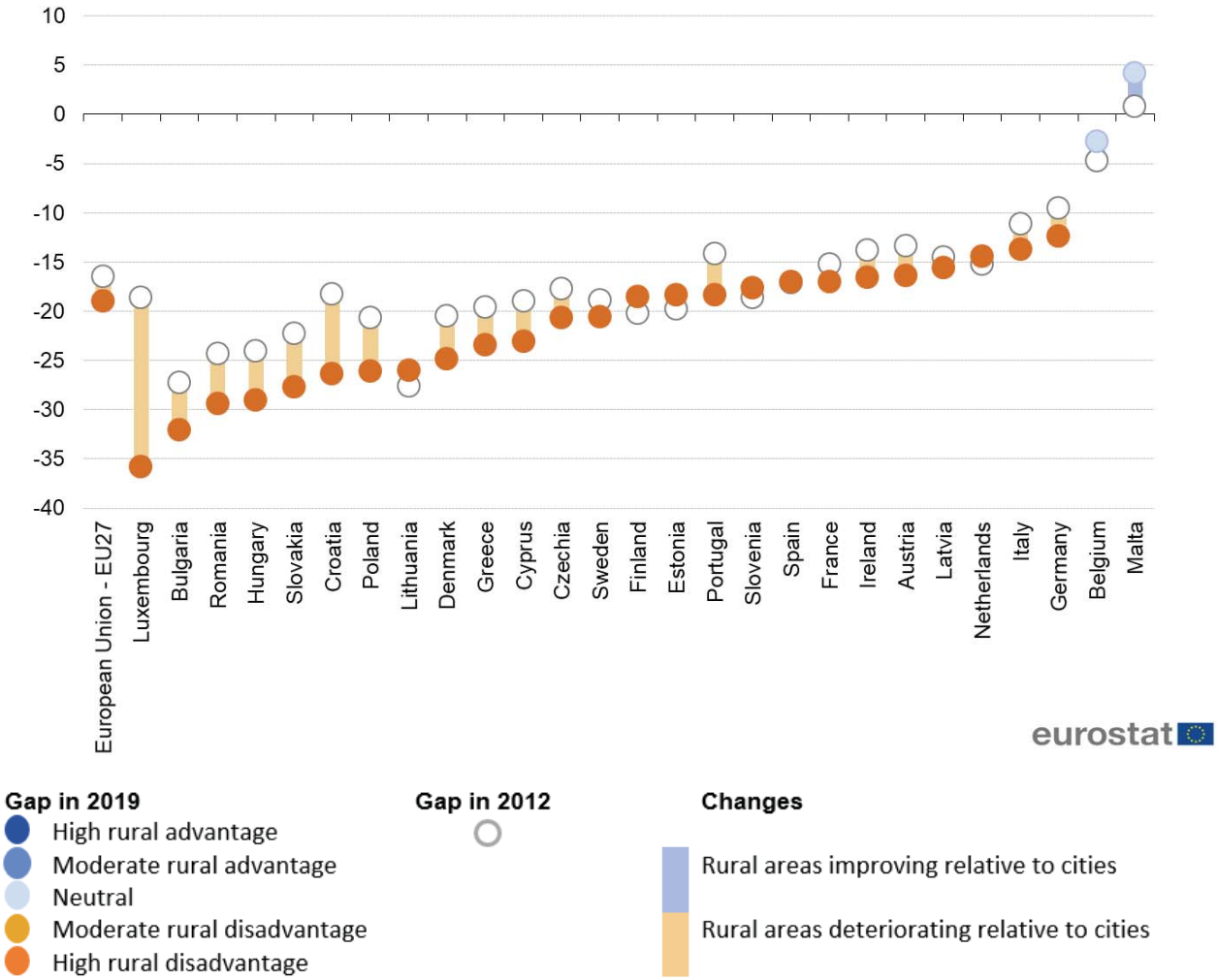


Source: Eurostat (online data code: edat_lfs_9913)

Since the increase was even higher in cities, the gap between rural areas and cities increased from 17 pp in 2012 to 19 pp in 2019. Also at the Member State level, most experience a stable or a growing gap in terms of tertiary education between rural areas and cities.

Figure 25 Gap analysis - Tertiary education of 25–64-year-olds in rural areas in 2012 and 2019

(percentage point difference between rural areas and cities)



Source: Eurostat (online data code: edat_lfs_9913)

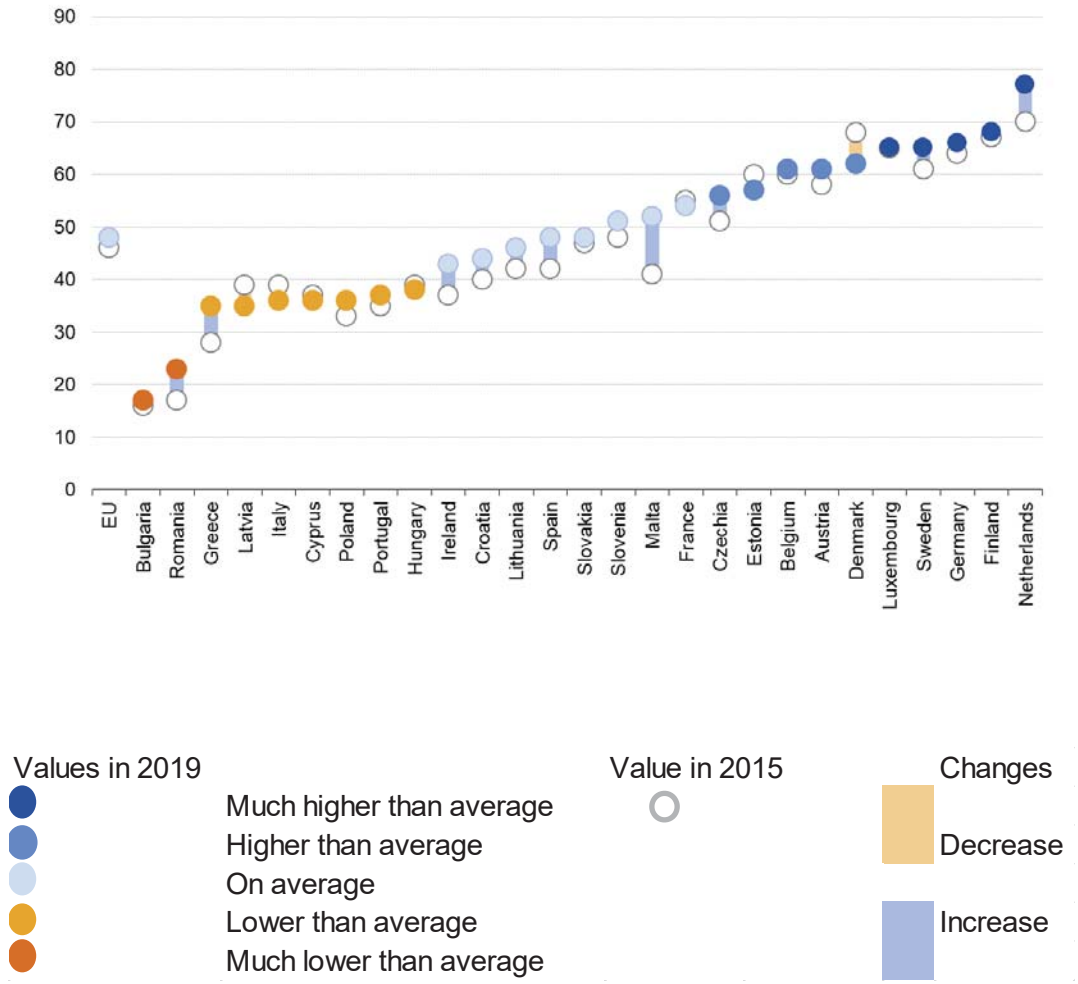
Of the women aged 25-34 in rural areas, 35% have a tertiary education compared to 22% for men that age in 2019. In cities, women of that age group are also more likely to have a tertiary education compared to men of that age, but the difference is smaller: 55% vs 45%, a gap of 10 pp vs 13 pp.[40]

About half of the EU rural population has at least basic digital skills. There is a big variation between Member States. The highest rate – recorded in the Netherlands – is more than four times bigger than the lowest rate recorded in Bulgaria.

[40] Source: Eurostat (online data code: edat_lfs_9913)

Figure 26 Individuals aged 16-74 who have basic or above basic overall digital skills in rural areas in 2015 and 2019

(% of population aged 16-74)

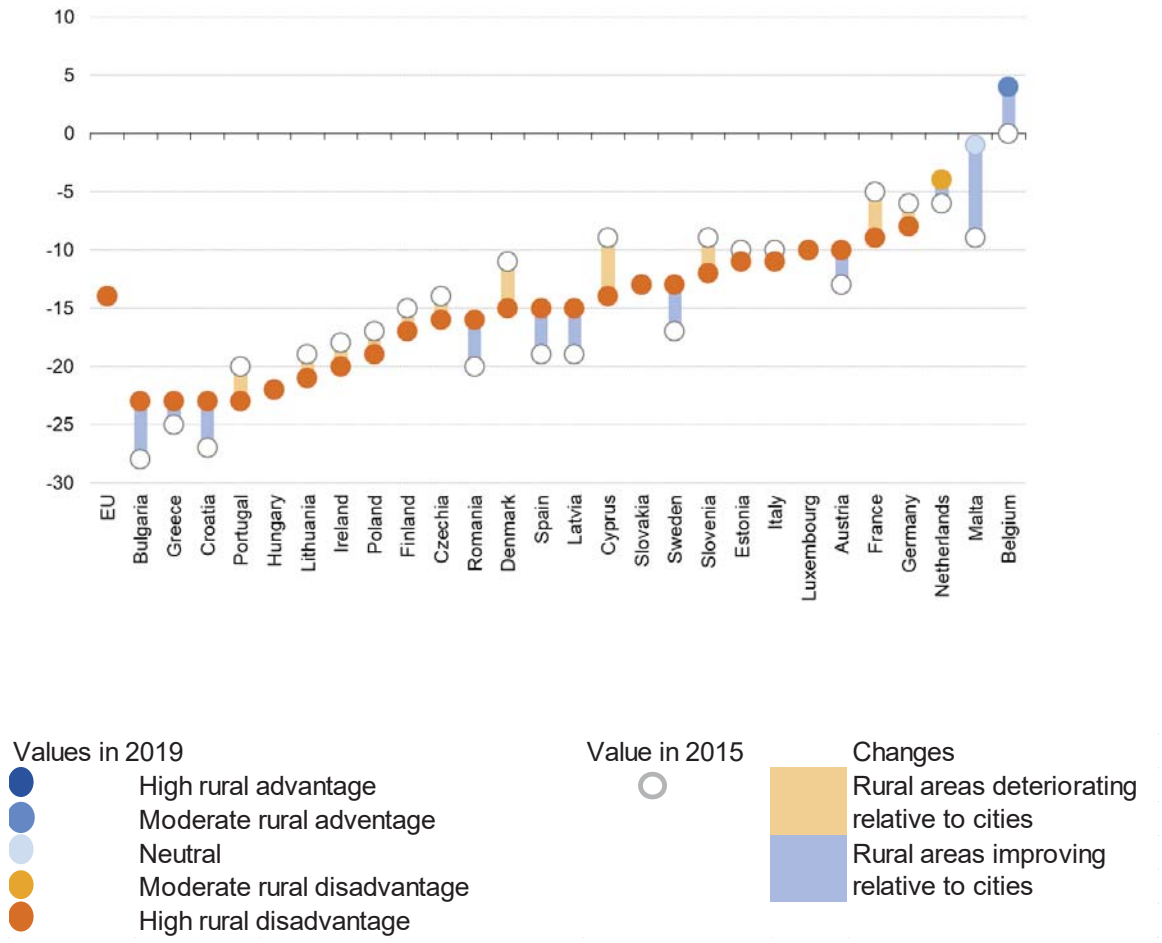


Source: Eurostat (online data code: isoc_sk_dskl_i)
Note: Malta and Sweden: 2019, low reliability. Luxembourg 2019 only.

As with tertiary education, **the gap between rural areas and cities is wide and present in virtually all Member States**. In the EU, the share of rural residents that have at least basic digital skills is 14 pp lower than of city residents (48% vs 62%) in 2019. This gap has furthermore not changed since 2015. The lower level of digital skills in rural areas may limit the uptake of e-services and the potential to work remotely. This also depends on the availability and affordability of high-speed infrastructure.

Figure 27 Gap analysis - Individuals aged 16-74 who have basic or above basic overall digital skills in rural areas compared to cities in 2015 and 2019

(percentage point difference between rural areas and cities)



Source: Eurostat (online data code: isoc_sk_dskl_i)
Note: Malta and Sweden: 2019, low reliability. Luxembourg 2019 only.

- Conclusions

At EU level, the rural employment rate was the same as in cities, albeit with clear differences at Member State level, while the rural unemployment rate was even lower than in cities in 2019. The reduction of active age population impacts also the employment rates, with some areas, also rural ones, facing more lack of workforce than unemployment problems.[41] At the same time, the gap between male and female employment rates is larger in rural areas than in cities in the EU, has barely changed since 2012 and is very high in some Member States.

[41] Brons, M. Dijkstra, L. and Ibanez, J-N., *Do more roads increase accessibility in the EU? Comparing road length, accessibility and performance for cities, towns and rural areas*, REGIO working paper, 2021. - Forthcoming

The educational divide between cities and rural areas is large and has grown over time. Although the share of population aged 25-64 with a tertiary education has increased in rural areas, it increased more in cities where the share is almost double (41% in cities vs 22% rural areas). The educational divide depends not only on access to tertiary education, but also to jobs that demand these types of qualifications. If more specialised jobs become available in rural areas, for example through teleworking, this divide may shrink. If specialised jobs remain or become more concentrated in (large) cities, the divide may well grow over time. Moreover, the percentage of young people without a job, not in education or training is higher in rural areas than elsewhere.

The growing share of working age women with a tertiary education in rural areas may reduce the gender employment gap over time. However, if some of the young women in rural areas with a tertiary education cannot find quality jobs and do not have access to social services including early childhood education and care facilities in rural areas, they will move elsewhere to find a job which fits their qualifications. Remote working possibilities might represent new opportunities also to women, accessing more easily high quality jobs while living in rural areas.

The share of population with at least basic digital skills is lower in rural areas than in cities and this gap has not changed since 2015, which may hinder the use of online services and the capacity for teleworking.

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PART 2/3

COMMISSION STAFF WORKING DOCUMENT
Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

A long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040

{COM(2021) 345 final} - {SWD(2021) 167 final}

3.4. ECONOMIC DEVELOPMENT

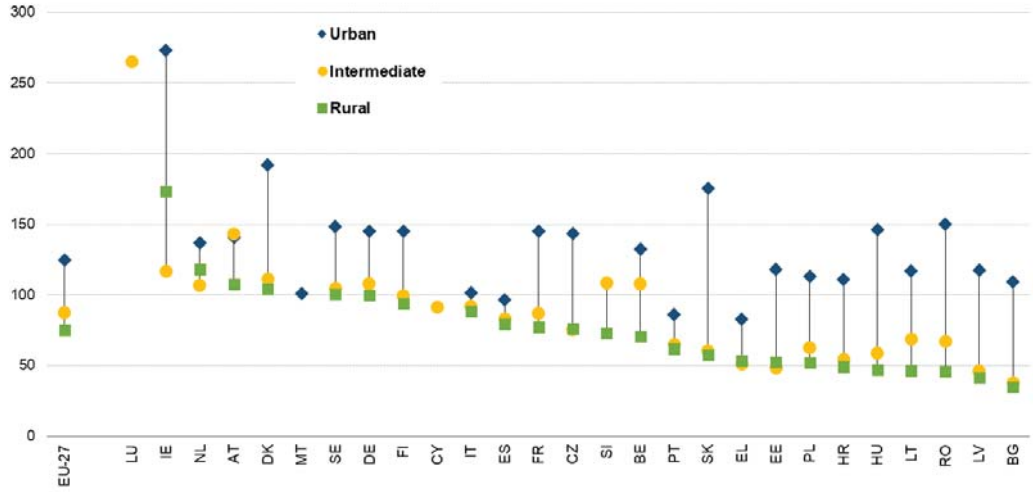
This section describes the economic situation of rural regions, with a focus agriculture and tourism.

- GDP per head in rural regions is lower than in urban regions but catching up

GDP per head is generally lower in rural and intermediate regions than in urban regions. In the EU-27, average GDP per head in rural regions was **75% of the EU average**, in intermediate regions it was 88% while in urban regions, it was 125%. The gap is particularly large in eastern and central European Member States, like Slovakia, Romania, Hungary or Bulgaria where some urban regions (notably the capital city regions) developed at an extremely fast pace of economic growth.

Figure 28 GDP per head (PPS), 2018

(Index EU-27=100, by urban-rural regional typology)



Source: Eurostat online data table (nama_10r_3gdp) and JRC ARDECO database.

Note the high value for GDP per head in Irish urban regions is due in part to the move of intellectual property rights.

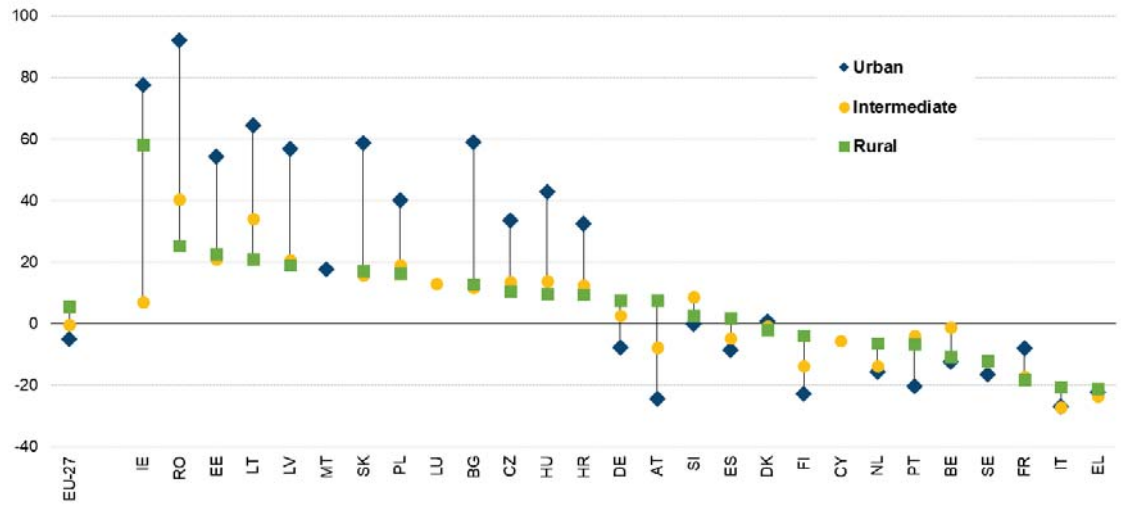
Although significantly lower than the cities in terms of wealth, rural regions have been catching up in relative terms with the rest of the Union. GDP per head in rural regions increased from **70% of the EU-27 average in 2000 to 75% in 2018**. Intermediate regions practically stayed at 88% of the EU average while in urban regions, GDP per head decreased from 130% to 125%. As a result, rural regions reduced the gap with urban regions by 10 index points during this period. In half of the 24 Member States[1] with urban and rural regions, urban regions grew faster, while in the other half rural regions grew faster. In eastern Member States, growth in urban regions was

[1] Cyprus, Luxembourg and Malta consist of a single urban or intermediate region.

much higher than in rural regions, but overall rural regions still converged to the EU average. However, there are considerable intra-regional differences.

Figure 29 Change in GDP per head (PPS), 2000-2018

(Change in index EU-27=100, by urban-rural regional typology)



Source: Eurostat and JRC ARDECO database

The performance of rural and intermediate regions is also affected by how distant they are from a city. In particular, GDP per head in remote regions tends to be lower than in other regions and has not converged to the EU average. In 2018, **GDP per head in rural remote regions was only 69% of the EU average** and it decreased by 1.8 index point between 2000 and 2018. In contrast, **GDP per head in rural regions close to a city** increased by 8.5 index points during the same period and was at **78% of the EU average** in 2018. The catching up of rural regions can also be seen in the real GDP per head growth rates, which was higher in rural regions than in intermediate or urban regions (Table 10). Growth rates in intermediate and rural regions close to a city were higher than in the remote intermediate and rural remote regions.

Table 10 Selected economic indicators by urban-rural regional typology, including remoteness

	Urban	Intermediate			Rural			EU
		Close	Remote	Total	Close	Remote	Total	
GDP per head (PPS), 2018 (EU-27=100)	**124.9**	89.1	67.6	**87.7**	77.7	68.5	**75.2**	100
GDP per head, 2018 (EURO in PPS)	**37,788**	26,958	20,448	**26,535**	23,523	20,738	**22,753**	30,256
Change in GDP per head, 2000-2018 (index points)	**-5.0**	-0.2	-4.4	**-0.4**	8.5	-1.8	**5.6**	0.0
Real GDP per head growth, 2000-2018, annual average (%)	**1.1**	1.2	0.9	**1.2**	1.7	1.1	**1.5**	1.2

Source: Calculations based on Eurostat (online data code: urt_10r_3gdp)

Also OECD showed that predominantly rural regions in OECD countries converged, with average annual growth rates higher for rural regions than for urban regions.[2] But since the 2008 financial crisis, their growth has fallen sharply, contributing to growing regional inequalities[3]. The crisis revealed the **higher vulnerability of remote rural regions and those near smaller towns, compared to those close to big cities**. OECD anticipates the impact of COVID-19 to be 10-fold that of the 2008 financial crisis. COVID-19 emphasised rural weaknesses in terms of service provision, connectivity and their lower share of jobs fit for telework. [4]

Rural areas are also often perceived as disadvantaged. Through interviews in seven Member States and the UK, the IMAJINE project[5] found that this perception can be reinforced by the media and linked to the perception that rural areas offer fewer economic opportunities. However, there are differences between countries. The gap in perception of economic opportunities between urban and rural areas was greatest in Poland, Romania and France, with little difference in Spain and the Netherlands. In Germany and Italy, rural areas were perceived to be better for economic opportunities than cities.[6]

- **Agriculture, forestry and fishery provide a significant share of employment in rural regions, while the structure of rural economies is changing and agriculture modernising**

In 2018, agriculture, forestry and fishery accounted for 5% of total employment within the EU. **In rural regions, however, this sector provided 12% of all jobs** compared to only 1% in urban regions. Its importance is particularly high in rural regions in less developed Member States. For example, it accounted for more than 30% of total employment in the rural regions of Bulgaria and Romania.

[2] OECD, *Rural Well being: geography of opportunities*, OECD, 2020. http://www.oecd.org/regional/rural-development/rural-well-being-d25cef80-en.htm

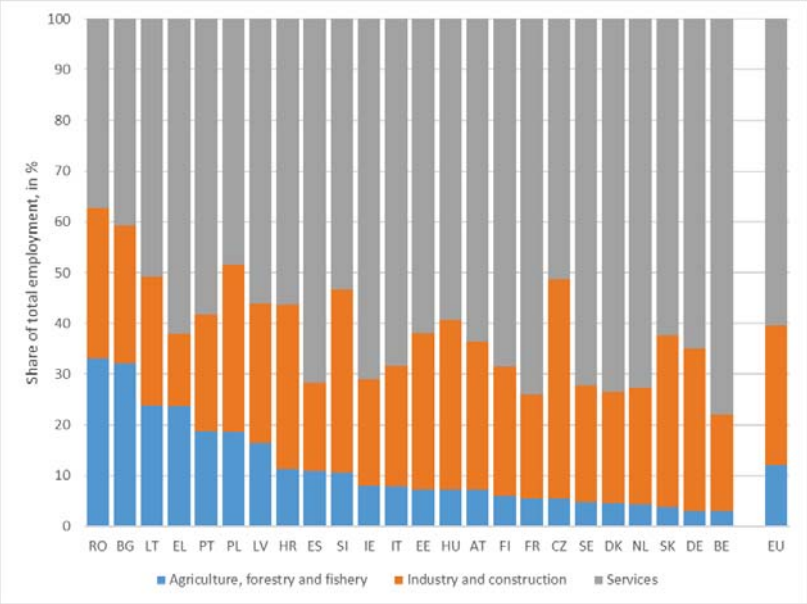
[3] See notably page 26 of the OECD report mentioned in footnote 2

[4] OECD, *Policy implications of Coronavirus crisis for rural development*, OECD, 2020. http://www.oecd.org/coronavirus/policy-responses/policy-implications-of-coronavirus-crisis-for-rural-development-6b9d189a De Luca, C., Tondelli, S., Åberg, H., *The Covid-19 pandemic effects in rural areas*, TeMA – Journal of Land Use, Mobility and Environment 119-132, 2020. https://doi.org/10.6092/1970-9870/6844 ENRD, *Rural responses to the COVID-19 crisis*. https://enrd.ec.europa.eu/rural-responses-covid-19-crisis_en

[5] IMAJINE, *Integrative Mechanism for Addressing Spatial Justice and Territorial Inequalities in Europe*, Briefing Paper on Evidence from the IMAJINE Project for the EU Long Term Vision for Rural Areas, H2020, 2021. http://imajine-project.eu/#home

[6] Woods M., *Briefing Paper on Evidence*, 2021.

Figure 30 Employment by sector in rural regions, 2018



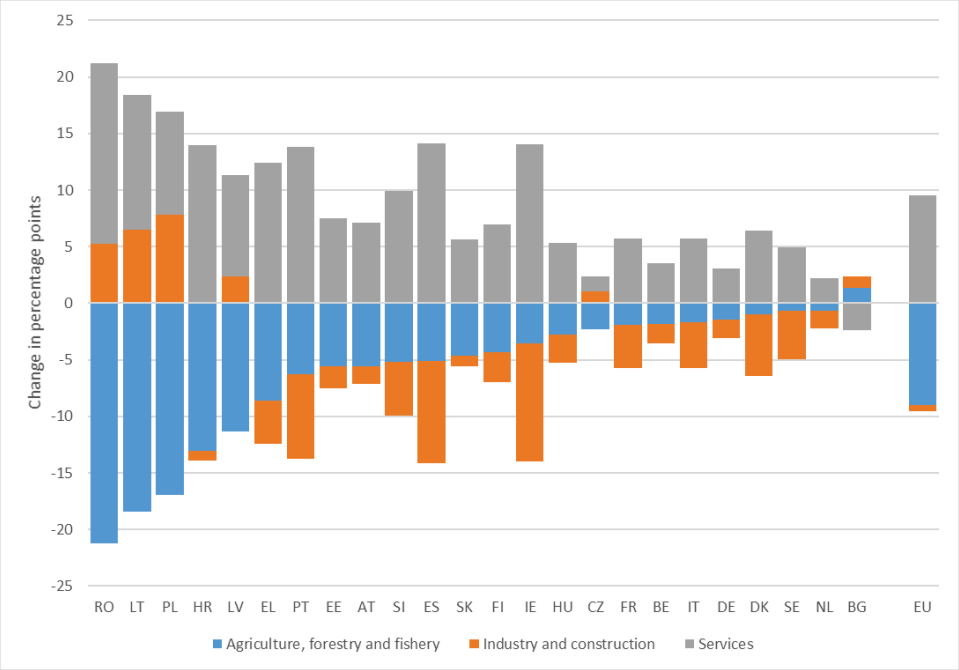
Source: Eurostat and ARDECO database

Note: Cyprus, Luxembourg and Malta do not have a rural region and are thus not show on this graph.

In the EU, the share of the agriculture, forestry and fishery sector in rural regions' employment went from 21% to 12%.between 2000 and 2018.The share of industry and construction remained practically unchanged, while the share of services increased by almost 10 percentage points (pp). This change in the economic structure is particularly significant in certain rural regions of Eastern Europe. This contrasts with the changes observed in urban regions where employment shifts at a much slower pace from industry and construction to services.

This highlights the fact that rural regions in a number of less developed Member States are undergoing a rapid restructuring. This trend is driven by the combination of the modernisation of agriculture and the growth of employment in industry and services. This trend is likely to continue.

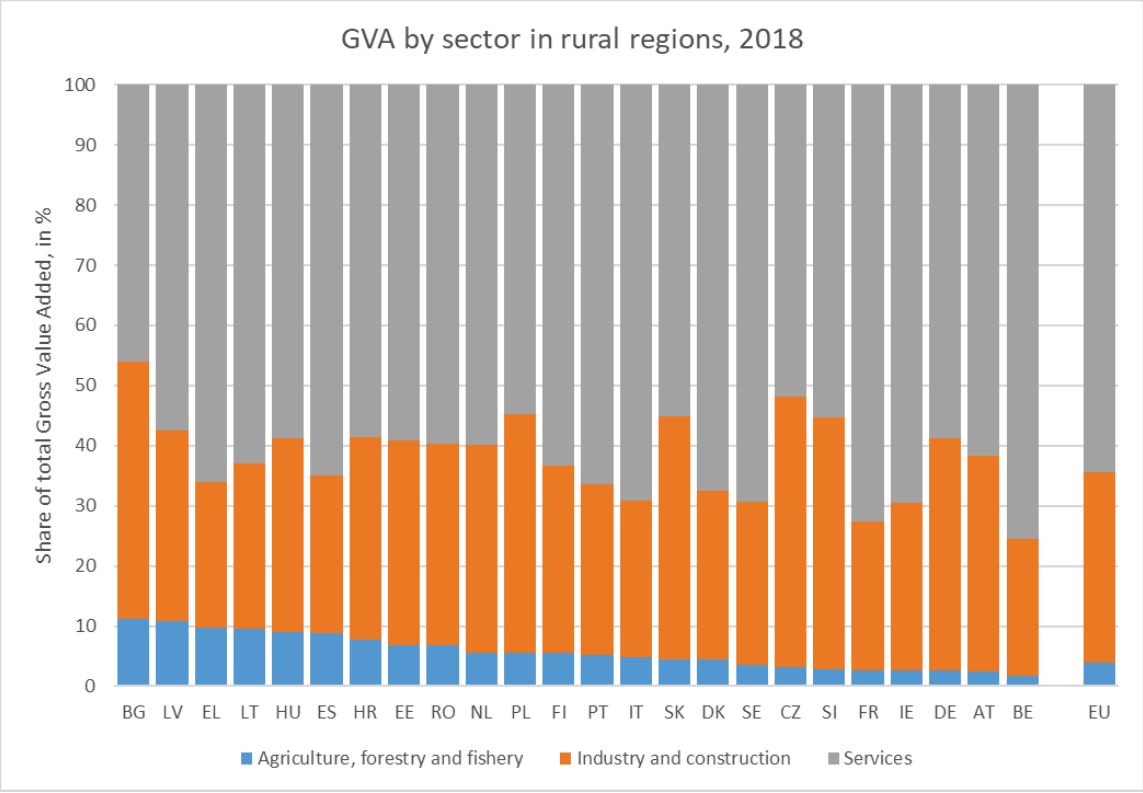
Figure 31 Change in employment by sector in rural regions, 2000-2018



Source: Eurostat and JRC ARDECO database

Gross value added (GVA) in rural regions follows a similar structure and trend as employment does. Agriculture, forestry and fisheries in rural regions represent 4% of GVA in rural regions at the EU level in 2018.

Figure 32 GVA by sector in rural regions, 2018

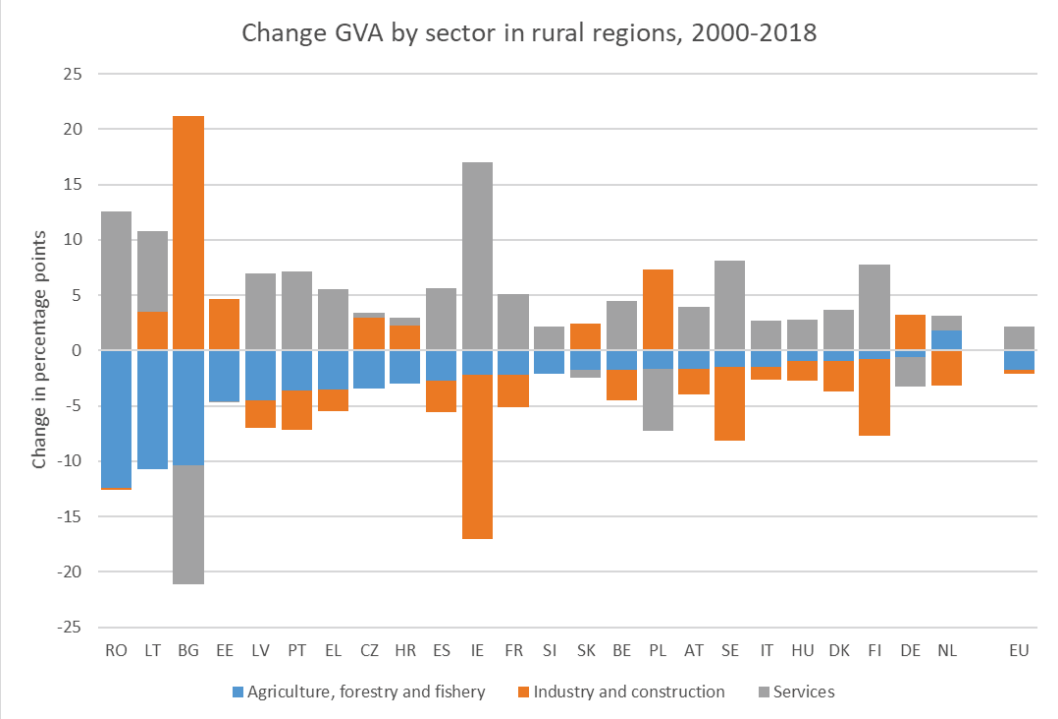


Source: Eurostat and JRC ARDECO database

Whereas, eleven Member States have 10% or more of their employment in rural regions in agriculture, forestry and fisheries, for GVA this is only the case for 3 Member States (Figure 32).

The changes in the sectoral GVA shares in rural regions are smaller as compared to changes in employment shares. At the EU level, the share in GVA for agriculture, forestry and fisheries dropped by 1.7 percentage points (pp), industry dropped by 0.4 pp, while services grew by 2.1 pp. Rural regions in a few Member States, however, experienced bigger reductions in the GVA share of agriculture, forestry and fisheries. Notably, rural regions in Romania, Lithuania and Bulgaria saw reductions of more than 10 pp (Figure 33).

Figure 33 Change GVA by sector in rural regions, 2000-2018



Source: Eurostat and JRC ARDECO database

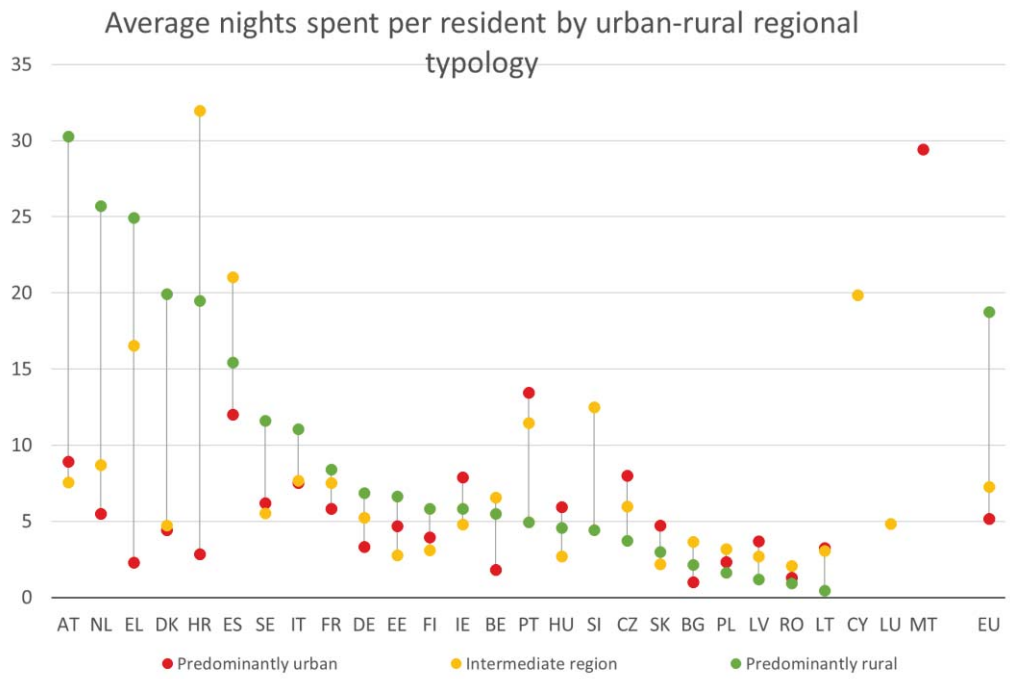
- Tourism is important for rural economies

Tourism is an important activity and contributes significantly to economic growth, including in remote and rural areas[7]. At the EU level, the number of tourism nights per inhabitant in rural regions is three times higher than in urban regions. Tourism nights spent relative to the residential population are particularly high in the rural regions of Austria, the Netherlands, Greece, Denmark and Croatia.

[7] Snowdon, P., Slee, B., Farr, H., *The Economic Impacts of Different Types of Tourism in Upland and Mountain Areas of Europe*, in Godde P. M., Price M. F., Zimmermann F. M (Eds.), *Tourism and development in mountain regions*, Wallingford, UK: CAB International, 2000.

WTO, *Rural tourism in Europe: Experiences, development and perspectives,* World Tourism Organization, Madrid, 2004. https://www.e-unwto.org/doi/epdf/10.18111/9789284407163

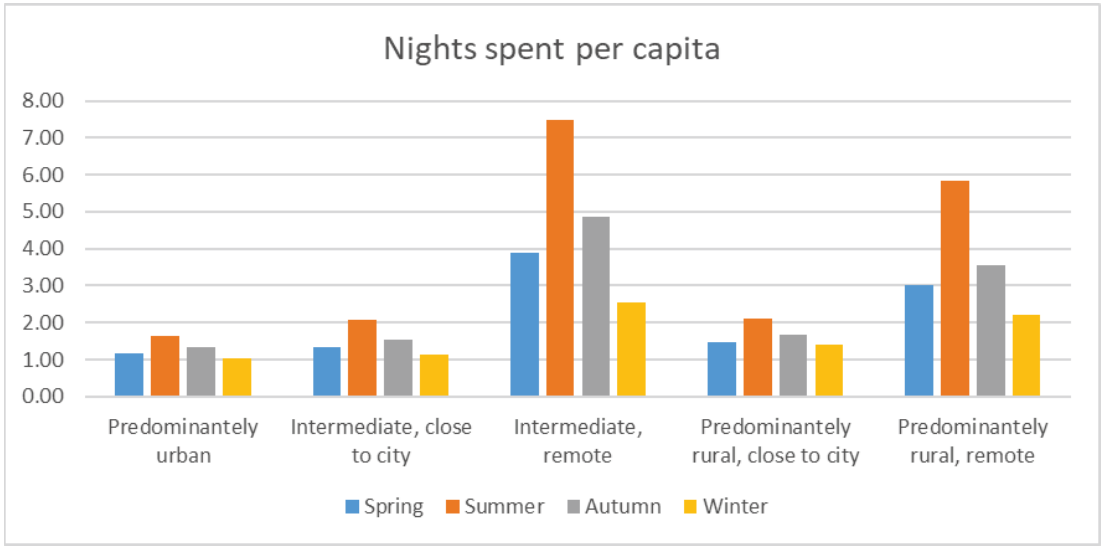
Figure 34 Share of nights spent per resident by urban-rural regional typology, 2018



Source: Elaboration of the authors on data produced by the JRC Unit of Territorial Development

Tourism expenditure per inhabitant is generally higher in rural regions[8], which indicates that this sector is a more important source of income than in other types of regions. However, tourism in rural regions also tends to be more seasonal than in urban and intermediate regions, which implies that tourism activities must often be complemented with others.

Figure 35 Nights spent per capita by regional urban-rural typology and season, 2018

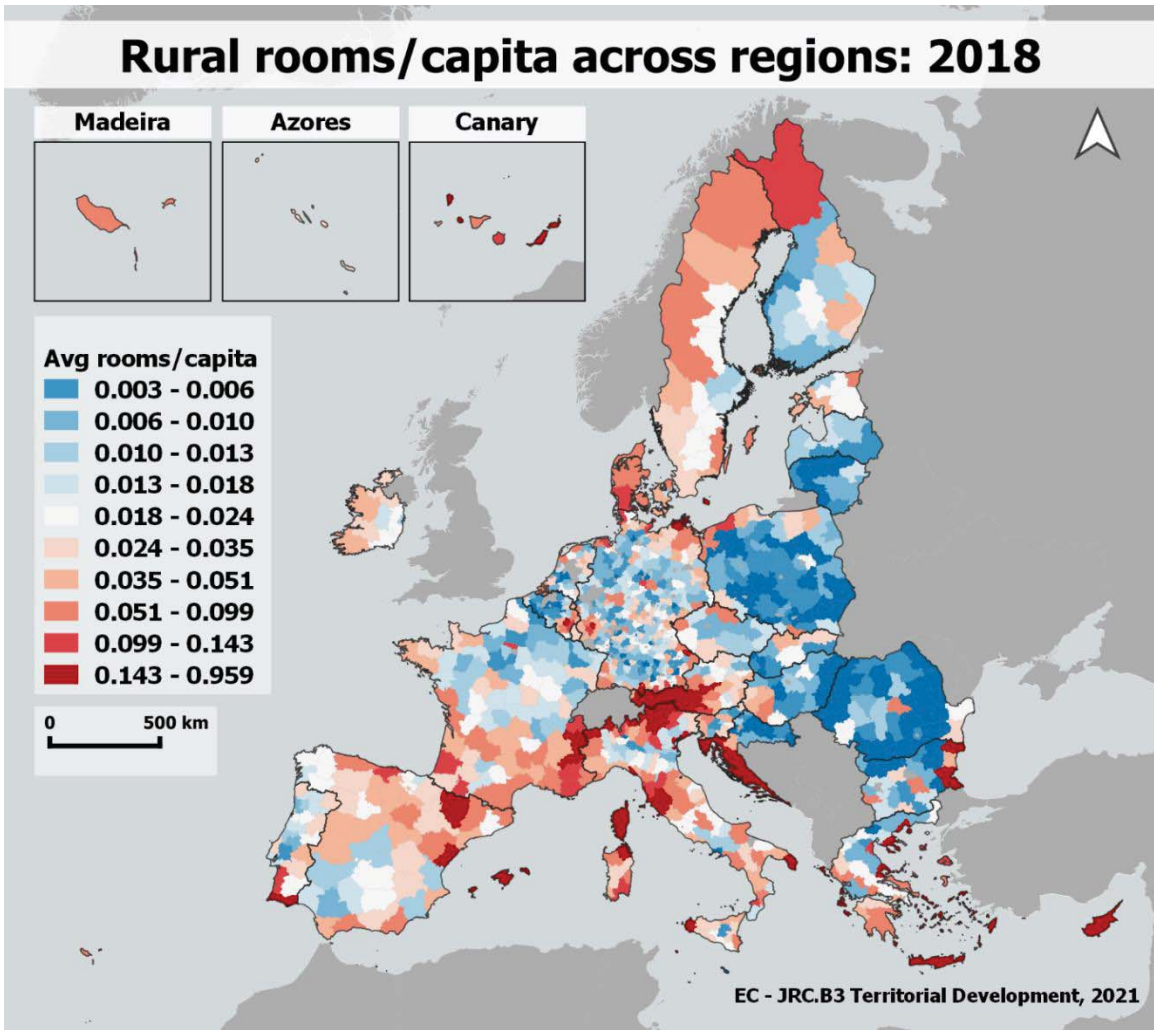


Source: Elaboration of the authors on data produced by the JRC Unit of Territorial Development.

[8] Barranco, R., et al., *Tourism capacity, expenditure and seasonality in Europe: an evaluation per degree of urbanisation and remoteness*, Policy Brief. European Commission, JRC 124457, 2021.

Tourism capacity in rural regions considerably varies across the EU. The number of rooms available is much higher in the rural regions of northern Spain, France, alpine Austrian and Italian regions, Cyprus, western Ireland, Denmark and Bulgarian eastern regions. In contrast, eastern European countries like Romania and Poland, parts of Hungary, Germany, Finland and Lithuania have lower rural accommodation capacity.

Map 7 Number of rooms in rural areas per capita by NUTS-3 regions, 2018



Source: Elaboration of the authors on data produced by the JRC Unit of Territorial Development.

The development of new business in cultural and creative industries (e.g. wine producers, tourism operators, forestry-wood industry) can support innovation and contribute to rural development. Cultural tourism might be facing challenges in many rural areas, due to lack of cultural infrastructure and tourist services, accessibility, advanced digital technologies that could help to the promotion this kind of tourism.

- Farming is restructuring, but its importance for rural areas remains

Farming and rural areas are closely related in multiple ways, including since the vast majority of EU agricultural land is located in rural areas (85%) and 43% of the land in rural areas is dedicated to agriculture.[9]

Agriculture provides jobs not only to farmers but often also to the whole farming household. The overwhelming majority of the EU's farms are family farms (95.2 % in 2016).[10] The number of farms in the EU has dropped by 4 million in just over a decade: from 14.2 million in 2005 to 10.3 million in 2016. [11] This reduction is mainly due to the restructuration occurring mostly in the Member States that joined the EU in 2004 or after and affects mostly the very small and small farms. Declining farm numbers have led to an increase in the size of farms and in output per farm. The resulting economies of scale and mechanisation implied a drop in employment in the agricultural sector.

Over the last fifteen years, 29% of jobs in agriculture disappeared[12] (in particular non-salaried), even though the trend seems to be levelling off. Bulgaria, Slovakia and Estonia have more than halved their annual work units. Some agricultural sectors face labour shortages or vulnerability (revealed during COVID-19 pandemic) and working in farming in general faces a lack of attractiveness. Seasonal jobs in agriculture are increasingly taken by workers coming from another EU country or from non-EU countries, a shift that is not fully captured by official statistics[13].

[9] LUISA Base Map 2018 (EC-JRC).

[10] Eurostat, *Farm Structure Survey*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agriculture_statistics_-_family_farming_in_the_EU

[11] Eurostat (online data code: ef_m_farmleg). Changes in survey thresholds may also have led to some small farms to be excluded from the statistics. Therefore, the decline has to be interpreted with care.

[12] Eurostat (online data code: AACT_ALI01). Data are in annual work units.

[13] Kalantaryan S., Mazza J., Scipioni M., *Meeting labour demand in agriculture in times of COVID 19 pandemic*, 2020. https://publications.jrc.ec.europa.eu/repository/bitstream/JRC120800/meeting_labour_demand_in_agriculture_in_times_of_covid_19_pandemic_online.pdf

Figure 36 Evolution of the number of jobs in agriculture (in 1000 AWU)

(salaried and non-salaried)

Source: Eurostat (online data code: aact_ali01)

The decline in the size of the agricultural workforce is expected to slow down at −1% per year, reaching 7.9 million annual work units[14] in 2030. In particular, the number of agricultural workers hired could continue rising in relative share, in relation to the trend towards reduced family labour.[15]

Farming income is significantly below the average wage in most Member States. In 2019, EU farmers earned less than half (48.8%) of what could be gained in other jobs. However the gap between the agricultural income per worker and the average wage in the economy has decreased over time (in 2008, farmers earned only 33.5% of the average wage in the economy)[16].

After the crisis year 2009, the EU average agricultural *factor* income per full-time work unit[17] has recovered in real terms. In 2019, it was 29% higher than in 2010. However, this trend varies from one Member States to another. In Bulgaria the factor income per full-time work unit was more

[14] Eurostat, Glossary: Annual work unit (AWU). https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Annual_work_unit_(AWU)

[15] EC, *EU agricultural Outlook*, 2020. https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/agricultural-outlook-2020-report_en.pdf

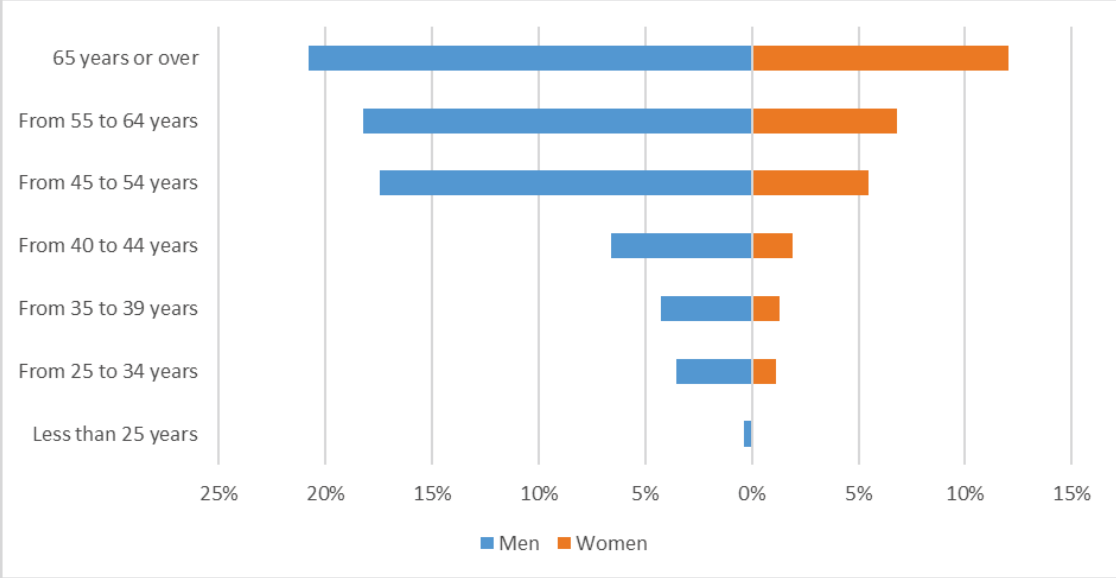
[16] Income based on Eurostat (online code: aact_eaa04, aact_ali01 and aact_eaa06), adding back the compensation of employees to the entrepreneurial income and divided by the total number of annual working units.

[17] Eurostat (online data code: aact_eaa06). Data for 2014-2016. The evolution of the real income of factors of production in agriculture per AWU is measured by means of an index called "Indicator A" in the Economic Accounts for Agriculture, the main data source for agricultural income in the EU. It represents the real net value added at factor cost of agriculture per total AWU, thus including both salaried and non-salaried workers converted to full-time equivalents. This index value shows changes in relation to a base year (2010). Data for 2014-2016.

than double compared to the reference year, whereas in Malta, Finland, Belgium and Austria it decreased by 5% or more.

Farming is characterised by a low share of young and female managers[18]. One third of farms managers are over 65. Over the period 2005-2016, the share of farms run by managers below 35 years old decreased from 6.9% to 5.1%. Female managers were only 29% in 2016, but their share is increasing. Women run on average smaller farms than men do and the income they generate is on average smaller[19]. The gender imbalance among farmers is particularly strong in the Netherlands, Malta, Denmark and Germany, where less than 10% of managers are women. On the other side of the spectrum, in Lithuania and Latvia, nearly half of all farms are managed by a woman.[20]

Figure 37 Share of farm managers by sex and age class in EU27 in 2016



Source: Eurostat (online data code: ef_m_farmang)

While knowledge requirements in farming are constantly increasing, more than two-thirds (68%) of EU farmers have not received any agricultural training other than their own practical experience. In Romania, Greece and Bulgaria this share surpasses 90%. The oldest farmers are least likely to have received any kind of training[21].

- Conclusions

GDP per head in rural regions was considerably lower than the EU average (70%) in 2000, but faster economic growth has allowed to reduce in relative terms the gap in relative terms to the EU average (75% in 2018). Over this period, rural regions close to a city grew faster than the EU

[18] Eurostat (online data code: ef_m_farmang). Data for 2016.

[19] Farm accountancy data network (FADN).

[20] Eurostat (online data code: ef_m_farmang).

[21] Eurostat (online data code: ef_mp_training).

average, but remote rural regions grew slightly slower than the EU average, with GDP per head dropping from 70% to 69% of the EU average.

The economies of rural regions are going through a structural transformation with employment shifting out of agriculture, forestry and fisheries and into industry and increasingly services. This process is already further along in other regions, which have lower employment share in agriculture, forestry and fisheries and smaller reductions in the employment share of that sector. This implies that this process is likely to continue but start to slow down as the economic structure of rural regions start to resemble those of intermediate and urban regions.

Despite its declining employment, agriculture remains important for and intrinsically linked to life in rural areas, with benefits also for residents in urban ones. This holds for food security, but also for the provision of eco-system services, the wider socio-cultural life in rural areas and the contribution to other economic sectors, in particular tourism. High importance of tourism in rural areas may imply a high population variation over the year, which needs to be considered in demographic analyses and basic services assessment.

The green transition will require farmers to adapt to take the advantages that it offers, notably growth opportunities in new sectors such as the sustainable bioeconomy and circular economy. Also, consumer demand for sustainable products (with higher nutritional value, better animal welfare, without chemical pesticides, etc.) represents a key opportunity, which may help small family farms. Increasing cooperation and productivity is critical in that perspective. The development of innovative technologies (such as precision farming) can also help farmers to reach at the same time both economic and environmental objectives. Attracting Europe’s next generation of farmers is a key challenge.

3.5. SOCIAL INCLUSION

Social inclusion, including in EU rural areas, covers a wide range of social topics and societal groups including poverty, challenges of the youth and older people, the gender balance, people with disabilities, population with migrant background (EU mobile citizens and non-EU migrants), marginalised Roma communities, and, in many rural territories, the small farmers. This section describes the social situation of rural areas by touching upon a range of these aspects and groups.

- **The risk of poverty or social exclusion in rural areas is slightly higher than in towns and suburbs and cities**

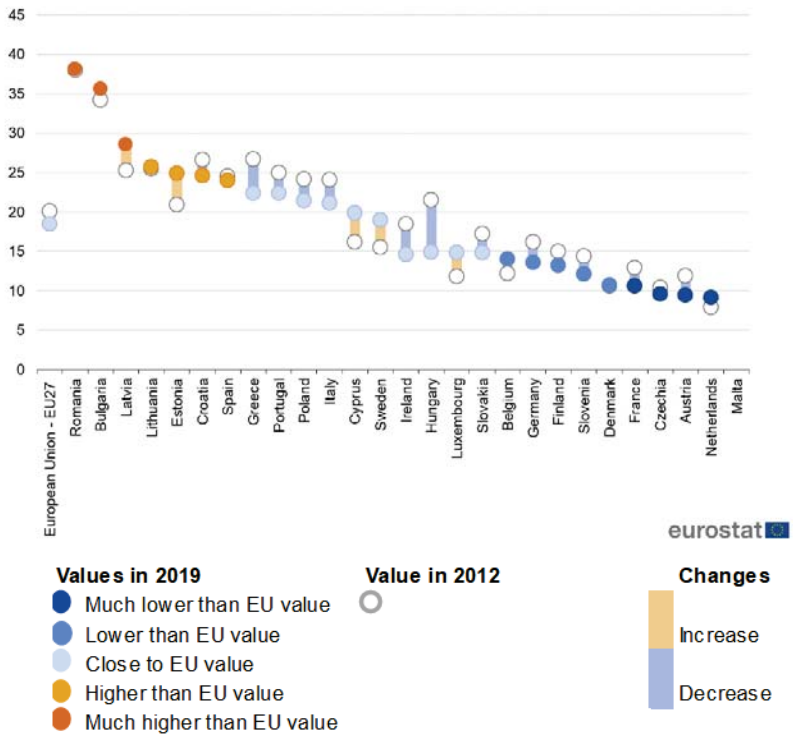
Although the absolute number of individuals at risk of poverty and social exclusion is slightly higher in cities and towns and suburbs than in rural areas, **in terms of percentage of population at risk of poverty or social exclusion[22] the figures are higher in rural areas (22.4%), compared to cities (21.3%) and towns** and suburbs **(19.2%)[23]**.

At-risk-of-poverty rate in rural areas varies significantly between Member States (Figure 38).

[22] The at-risk-of-poverty rate is the share of people with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers. The at risk of poverty and social exclusion indicator corresponds to the sum of persons who are: at risk of poverty or severely materially deprived or living in households with very low work intensity. Persons are only counted once even if they are present in several sub-indicators. Eurostat (online data code: ilc_peps13)

[23] 2019 data for EU, Eurostat (online data code: ilc_li43)

Figure 11 At-risk-of-poverty rate in rural areas in 2012 and 2019 (% of population)



Source: Eurostat (online data code: ilc_li43)
Note :Value for Malta is missing due to low reliability

Challenges related to demography, remoteness, education, and labour market may interact and generate "vicious circles", which may reproduce and amplify the phenomenon of poverty of rural areas.[24]

In 2019, in the EU 7.3% of the rural population aged less than 60 years lived in households where the adults worked less than 20% of their total work potential during the past year (households with very low work intensity). This proportion was lower compared to 2012 (9.8%). Bulgaria, Greece, Ireland and Spain had registered the highest rates both in 2012 and 2019, Austria and Czechia the lowest rates. In most Member States the rate of households with very low work intensity decreased between 2012 and 2019 in rural areas. At the EU level there is no substantial difference between rural areas and cities[25].

The rate for people in rural areas suffering from **severe material deprivation**[26] was 5.7% for EU-27 in 2019[27]. The rate has declined in all Member States in the past 9 years, with the biggest

[24] Bertolini, P., Montanari, M., Peragine, V. *Poverty and social exclusion in rural areas*, 2008.

[25] Eurostat (online data code: ilc_lvhl23)

[26] Severe material deprivation rate is the inability to afford at least four out of nine predefined material items considered by most people to be desirable or even necessary to lead an adequate life.

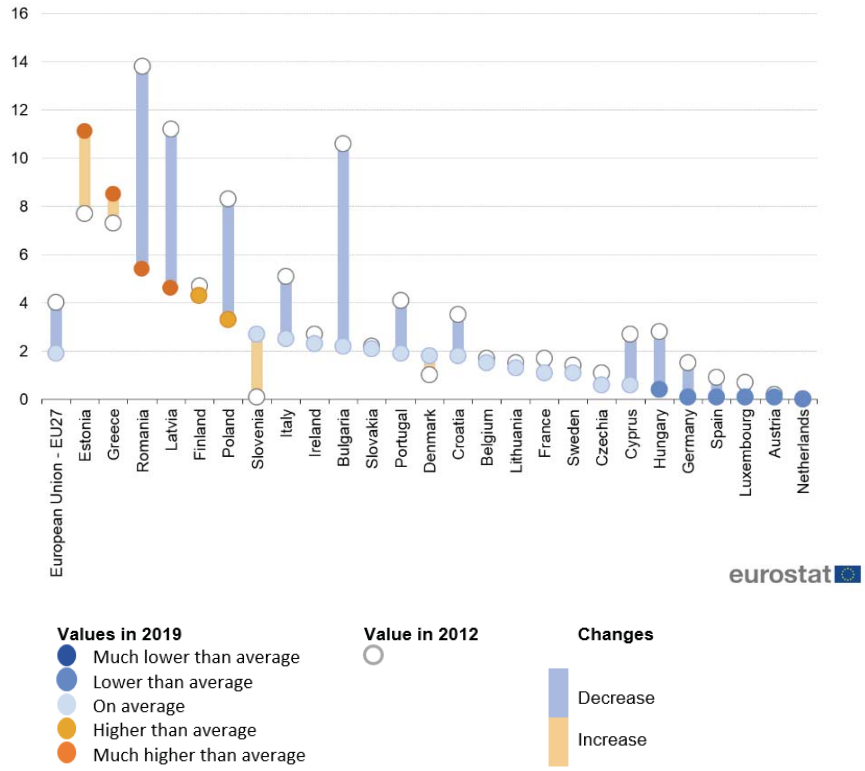
[27] Eurostat (online data code: ilc_mddd23)

improvements registered in Bulgaria and Romania where, however, they remain high. At the EU level there is no difference between rural areas and cities but this is a result of very heterogeneous picture where different Members States show different patterns. The changes in the gap are similarly heterogeneous but in most cases these are showing a convergence pattern – closing the gap between rural areas and cities.[28]

While in most Member States rural areas have a lower **housing cost overburden rate**[29] than cities, 7% of the EU rural population is living in a household where total housing costs (net of housing allowances) represent more than 40% of the total disposable household income (net of housing allowances)[30] compared to 11.8% of the city population.

The EU average for self-reported unmet needs for medical examination (Figure 39) in rural areas is low – below 2%.

Figure 39 Self-reported unmet needs for medical examination in rural areas in 2012 and 2019. (%, share of people aged 16 years or over)



Source: Eurostat (online data code: hlth_silc_21)
Note: Unmet needs for medical examination due to it being too expensive, too far to travel and/or because of waiting lists. Ireland, France, Italy and Slovakia: 2018. EU27: estimate. Netherlands: not significant. Malta: data not available.

[28] Eurostat (online data code:ilc_mddd23)

[29] The housing cost overburden rate is the percentage of the population living in households where the total housing costs ('net' of housing allowances) represent more than 40 % of disposable income ('net' of housing allowances).

[30] Eurostat (online data code: ilc_lvho07d)

- **Different societal groups are particularly affected by challenges linked to social inclusion**

As regards **elderly people**, the loneliness and isolation of people of more than 60 years old is an increasing problem in rural communities in Europe.[31] Poor access to social care and health care, transport and housing services exacerbates the phenomenon of loneliness and isolation affecting the well-being and social engagement of elderly people in rural areas.[32] As the Green Paper on Ageing recognises, elderly workers face also difficulties when it comes to employment. Besides, the potential of many healthy, active elderly people to work remains untapped and underemployed resources also in rural areas.[33]

Many **Roma**, the largest ethnic minority of the EU, live often in high concentration in rural areas. Progress in Roma integration has been limited, in 2016, four fifths of the Roma were estimated to be at risk of poverty, compared to less than one fifth for the general population of the EU.[34], **90% of Roma children are still at risk of poverty and social exclusion**.[35] Paid employment, access to tap water, life expectancy rates show a similar negative picture.[36] 43% of Roma are in paid employment compared to 73.1% of the general population, 44% of Roma children attend schools where most or all children are Roma, 70% of Roma have access to tap water compared to 97.6% of the general population, 61% of Roma face housing deprivation compared to 17.9% of the general population, and the life expectancy gap at birth between the general population and Roma is significant.[37] Roma women, continue to face far worse situation than Roma men or women in the general population in key areas such as health, education and employment[38]. In countries with a larger share of Roma people[39], they represent a growing proportion of the school-age population and the future labour force[40]. The COVID-19 pandemic has revealed the extreme exposure of excluded and marginalised rural Roma communities and other vulnerable people to both short-term negative health impacts and to medium-term socioeconomic impacts[41].

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[31] European Commission, *Peer Review on "Strategies for supporting social inclusion at older age"*, 2019.

[32] Ibid.

[33] Aurambout J.P. et al., *The demographic landscape of EU territories*, 2021.

[34] FRA, *80% of Roma are at risk of poverty, new survey finds*, Press release 29 Nov, 2016. https://fra.europa.eu/en/news/2016/80-roma-are-risk-poverty-new-survey-finds

[35] EPHA, *Tackle child poverty by expanding the scope of the EU Child Guarantee*, 2020. https://epha.org/tackle-child-poverty-by-expanding-the-scope-of-the-eu-child-guarantee/

[36] FRA, *80% of Roma are at risk of poverty, new survey finds*, 2016.

[37] FRA, *Poverty and employment: the situation of Roma in 11 EU Member States*, Roma Survey - Data in focus, 2014. https://fra.europa.eu/sites/default/files/fra-2014-roma-survey-employment_en.pdf

[38] Challenges in Roma equality, inclusion and participation vary depending on the size of the Roma population and their share of the overall population, as well as on the wider economic context and the legacy of exclusion and discrimination.

[39] Romania, Slovakia, Hungary, Bulgaria, Spain, Greece, Czech Republic. in FRA, *Poverty and employment*, 2014.

[40] FRA, *Poverty and employment*, 2014.

[41] European Commission, *Overview of the impact of coronavirus measures on the marginalised ROMA communities in the EU 2020.*

Children at risk of poverty living in marginalised rural communities are among the hardest hit by the COVID-19 pandemic. Distance learning has been difficult for too many children at risk of poverty living in households without IT facilities or electricity and adequate support from parents[42]. This can be also effected by the fact, that the overall level of digital skills in the EU was lowest among adults who were living in rural areas (48% had basic or above basic digital skills in 2019)[43].

It is hard to estimate the **share of persons with** physical, developmental, intellectual and other **disabilities** in the rural population. In 2019 the share of people having a long-standing illness or health problem was 36.7%[44] in rural areas (EU 27), and 26.1% face long-standing limitations in usual activities due to health[45] (self-perceived, in rural areas, EU-27).

Also people working in agriculture can face social challenges, in particular when it comes to small farmers or women in farming. Work in agriculture is often precarious, and cases of infringements regarding labour rights, exploitation and forced labour have been reported across the EU.[46] Family labour (or non-salaried workers) is of great importance when it comes to inclusion of agricultural workers in the social fabric, though trends are showing a growing share of salaried workers in total agriculture workforce.[47]

Results from the IMAJINE[48] survey show that migrants moving into rural areas can find it a little less easy to settle into the region than migrants to urban areas. Asked to indicate how easy or difficult it was to adapt to life in their new region on a scale of 0 (very difficult) to 10 (very easy), respondents who had moved to areas of open countryside gave a mean score of 6.87 and respondents who had moved into villages or small towns gave a mean score of 7.09, compared to a mean score of 7.22 given by respondents who had moved into a city.

The country reports and profiles of MATILDE regions show a huge diversity of migrants in rural and mountain areas, with regard to their socio-demographic profile, countries and regions of origin, as well as in their motivation for migrating, and their aspirations to stay, which differences

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https://ec.europa.eu/info/sites/default/files/overview_of_covid19_and_roma_-_impact_-_measures_-_priorities_for_funding_-_23_04_2020.docx.pdf

[42] Goldmay K., *Coronavirus pushes Bulgaria's Roma further into the shadows*, Politico, 23/11/2021. https://www.politico.eu/article/coronavirus-pushes-bulgaria-roma-further-into-the-shadows/

[43] Eurostat, *Urban and rural living in the EU*. https://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20200207-1?inheritRedirect=true#:~:text=In%202019%2C%20the%20overall%20level,for%20adults%20living%20in%20cities

[44] Eurostat [hlth_silc_19]

[45] Eurostat [hlth_silc_20]

[46] Hunt, J., *Making the CAP Fit: Responding to the Exploitation of Migrant Agricultural Workers*, International Journal of Comparative Labour Law, Vol.30 (2), 2014.

[47] European Commission, *Background Document Socio-Economic challenges facing EU agriculture and rural areas*, 2017. https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/key_policies/documents/soc_background_final_en.pdf

[48] IMAJINE, *Integrative Mechanism for Addressing Spatial Justice and Territorial Inequalities in Europe*. http://imajine-project.eu/#home

need to be recognized in the rural development and increase the need for more personalised social services and developments.[49]

The COVID-19 pandemic has further aggravated the situation of migrants (including in rural areas) as they are overrepresented among the people infected by COVID-19 virus. The pandemic is having consequence on employment, e.g. in 2020 the employment gap between non-EU born and native-born people widened in the EU; and further possible consequences on health, education and social inclusion. Moreover, migrants are at a disadvantage as they are overrepresented in temporary employment, overrepresented among the low wage workers and in jobs that are less transferable to telework. [50]

- **Social inclusion in rural areas is linked to challenges and opportunities stemming from other thematic domains**

Social inclusion is closely related to the availability of and access to infrastructure and services which can pose specific difficulties for vulnerable groups.

Average distances to services for the elderly population are slightly higher in rural areas, and slightly lower in urban areas, compared to the distances for the non-elderly population.[51] Schools in rural areas often struggle to provide quality education due to their geographic isolation and small size, which increases the risks of suffering from insufficient infrastructure, limited educational offer and a lack of experienced teachers. Certain vulnerable groups (elderly, young, people with disabilities, with migrant background, marginalised Roma communities) often lack access to social and health care services. This makes it difficult for those people to receive the health and medical care they need, while it increases social and health inequalities. In addition, the lack of infrastructures both tangible (e.g., transport, broadband) and intangible (such as social fabric and culture in communities) affects social inclusion and economic development.[52]

At the same time, the demographic, the green and digital transitions holds several opportunities for rural areas, including for its more vulnerable societal groups. Adding to a lower cost of living and low levels of air pollution etc. the new silver (focusing on the ageing society), circular (with the target of zero waste emission) and social economy models can have a key role for the future with strong social aspects focusing on local networks, competences, resources like cultural heritage.

A higher level of digital skills and availability of ICT tools in rural areas could help improve access to blended and distance learning opportunities for all and to e-services. Next generational digital technology can enable specialised, personalised education and leadership to young rural populations from different backgrounds and supporting co-business and development of

[49] MATILDE, *Classification of MATILDE regions. Spatial specificities and third country nationals distribution*, 2019. https://matilde-migration.eu/wp-content/uploads/2020/08/MATILDE_D21_Classification_on_spatial_specificities_and_TCNs_distribution_040820.pdf

[50] Fasani F., Mazza J., *A Vulnerable Workforce: Migrant Workers in the COVID-19 Pandemic*, JRC report, 2020. https://publications.jrc.ec.europa.eu/repository/handle/JRC120730

[51] Aurambout J.P., et al., *The demographic landscape of EU territories*, 2021.

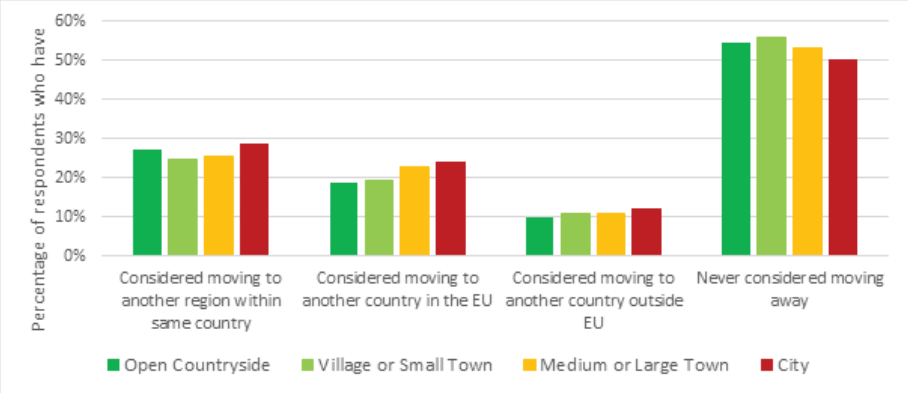
[52] OECD, *Rural Well-being*, 2020.

networks. Rural areas also have the chance to use the results of the technology in basic services (e-services, e-government, e-health) which makes basic services for special needs (for example for people with disabilities, with migrant background etc.) easier to organise.[53]

Interviews with domestic and international migrants in Greece, Ireland, the Netherlands, Poland, Romania and the UK realised by IMAJINE have emphasised the **significance of environmental and lifestyle factors** in attracting migrants to rural regions. These may operate **in combination with economic factors**, as in the case of labour migrants from the 2004 and 2007 accession states (including Poland and Romania) to countries in western and southern Europe, for whom environmental factors can influence decisions about where to locate in destination countries. And the environmental amenities of rural regions were cited by several interviewees as reasons to stay as well in destination regions, even where the initial driver of migration had been economic[54].

Results from the IMAJINE survey (Figure 40) of 18 000 residents in eight European countries indicate stable rural communities.

Figure 40 Respondents who have considered moving region or country, by type of area of residence



Source: IMAJINE WP4 survey.

- Conclusions

There is a lack of public awareness of the rural poverty problem and of the need to address it[55]. Some authors[56] argue about a non-effective policy proofing from rural points of view. For these and other reasons, rural poverty is often neglected[57].

[53] OECD, *Rural Well-being*, 2020.

[54] IMAJINE, *D4.1 Summary of Pevious Surveys – Report*. http://imajine-project.eu/wp-content/uploads/2020/11/Deliverable-4.1-Summary-of-Previous-Surveys-Report.pdf

[55] European Commission, *Poverty and social exclusion in rural areas*, Executive Summary, 2008.

[56] Walsh K., Harvey B., *Employment and social inclusion in rural areas: a fresh start*, POBAL, 2013.

[57] Bock B., Kovacs K., Shucksmith M., *Changing social characteristics, patterns of inequality and exclusion*, 2015.

The standard of living (measured in terms of GDP per capita or disposable household income) is generally lower in rural than in urban areas. Depending on the social indicator looked at women, young and old people as well as groups such as small farmers, people with migrant or Roma background and people with disabilities are particularly affected and thus qualify as more vulnerable parts of (rural) society.

Making sure nobody is left behind requires clearly differentiating between individuals' and vulnerable persons´ special and social needs that must be tackled at national level (support for temporary unemployed or assistance with re-training). Besides, for the more systemic issues affecting different segments of society (women, migrants, etc.) where a broader and intersectoral approach is needed, it is key to ensuring that investments in human capital do not leave aside rural areas and to encouraging joined-up policy making with other responses such as investment in infrastructure and services since they can contribute indirectly reducing poverty and social exclusion.

Listing the challenges in terms of rural social inclusion on a general level should also start with the recognition of the **lack of 'ready to use' basic data[58] for many topics using the same rural definition.**

[58] More precisely there is a lot of basic data, and many of these are under utilised. For example, geospatial datasets (would allow calculation of accessibility of services), open data published by regional, national and European administrations, etc. What is lacking sometimes is European level harmonised methodologies on how to translate basic data into meaningful, relevant, comparable indicators and harmonised methods on how to overcome the diversity of data sources which in many cases were not collected for the purposes of indicator calculation

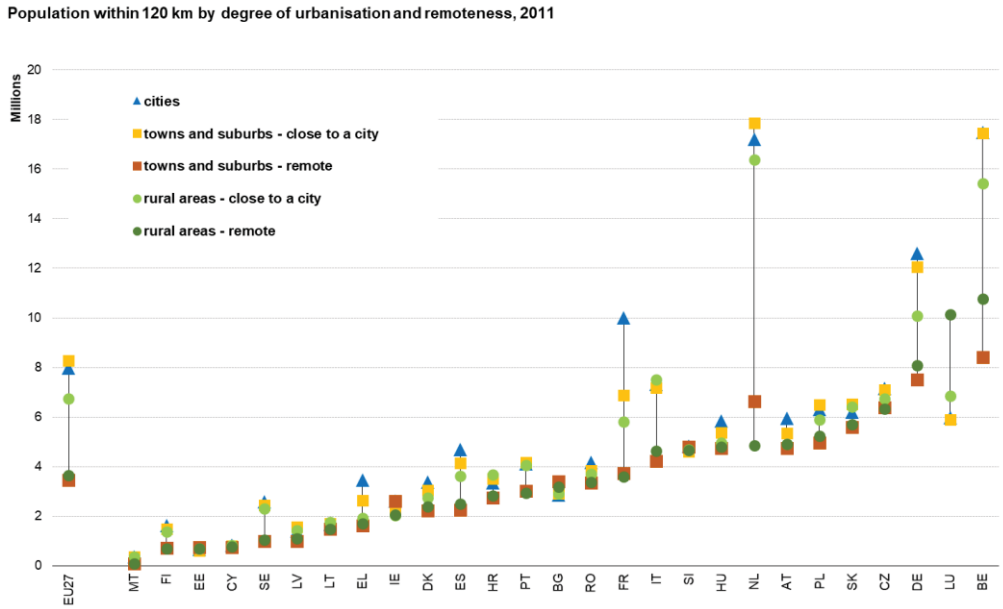
3.6. LOCAL INFRASTRUCTURE

This section deals with local infrastructure in different types of areas, including rural ones.

- The proximity to a large number of people, which is among the factors influencing access to services and infrastructure, varies among types of areas and Member States

Rural areas have a low population density and a dispersed population. Nevertheless, the total number of people within a radius of 120 km differs between rural areas in different Member States and between rural areas close to a city and remote rural areas. For example, more than 14 million people live within 120 km of the rural areas close to a city in the Netherlands and Belgium (Figure 41). This is far higher than the city average in all other Member States. This proximity to a large number of people is one of the factors influencing how easily people can reach certain services and the availability of transport and digital infrastructure.

Figure 41 Population within 120 km by Degree of Urbanisation and remoteness, 2011



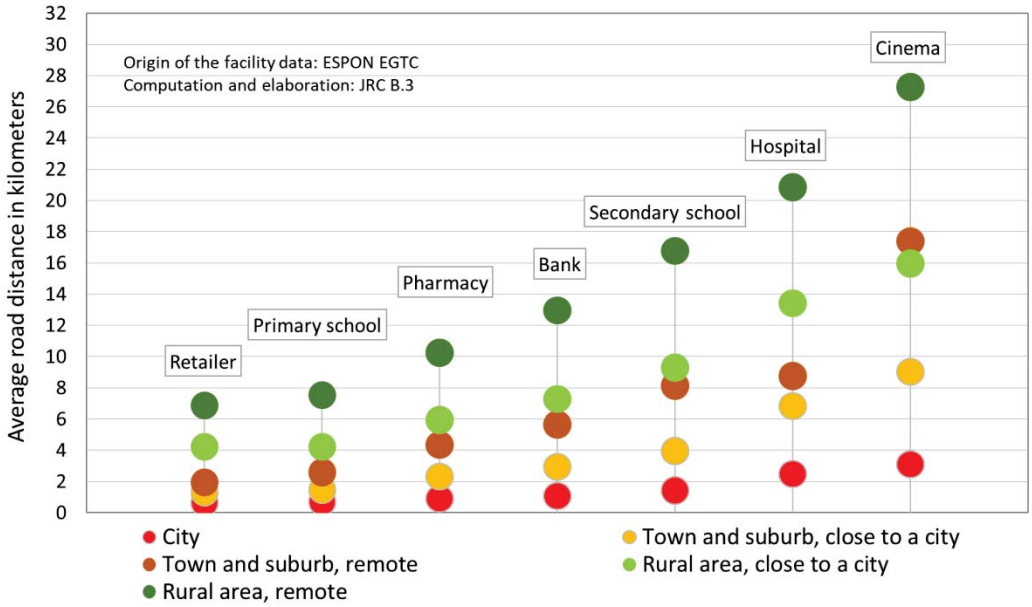
Source: REGIO calculations based on GEOSTAT 2011

- Rural residents have to drive longer distances to reach services

The average road distance to the nearest service follows a clear urban-rural gradient: the less urbanised and the more remote an area is, the longer is the distance to the nearest service. More specialised services require longer distances. For example, in remote rural areas the average distance to the nearest primary school is 8 km compared to 17 km for the nearest secondary

school[59]. Distances tend to be longer in very sparsely populated areas, for example in northern Sweden and Finland, in mountainous areas, for example in the Alps and in areas where the road network is less developed, mostly in some eastern Member States.[60]

Figure 42 Average road distance to the nearest service, by Degree of Urbanisation with remoteness, 2016



Source: JRC calculations based on ESPON study PROFECY

- **Road performance is lower in rural areas, but road networks are longer**

To assess how well a transport system works, the International Transport Forum (ITF), the OECD and the European Commission developed a new transport performance indicator[61]. It compares the number of people that can be reached within a certain amount of time to the number of people within a fixed distance. In essence, it measures how the share of nearby destinations that can be reached within a reasonable amount of time. Figure 43 shows what share of the population within 120 km can be reached in a 90 min drive[62]. It shows that rural areas close to a city consistently perform better than remote towns and suburbs and remote rural areas.

[59] Kompil, M., et al., *Accessibility to Services of General Interest in Europe: an evaluation for degree of urbanisation and remoteness*, Policy Brief. European Commission, Joint Research Centre - JRC124457, 2021.- forthcoming.

[60] European Commission, *Road Transport in Europe, introducing a new accessible framework*, Working Paper, 2019. https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2019/road-transport-performance-in-europe

[61] ITF, *Benchmarking Accessible in Cities: Measuring the Impact of Proximity and Transport performance*, 2019. https://www.itf-oecd.org/benchmarking-accessibility-cities

[62] European Commission, *Road Transport in Europe*, 2019.

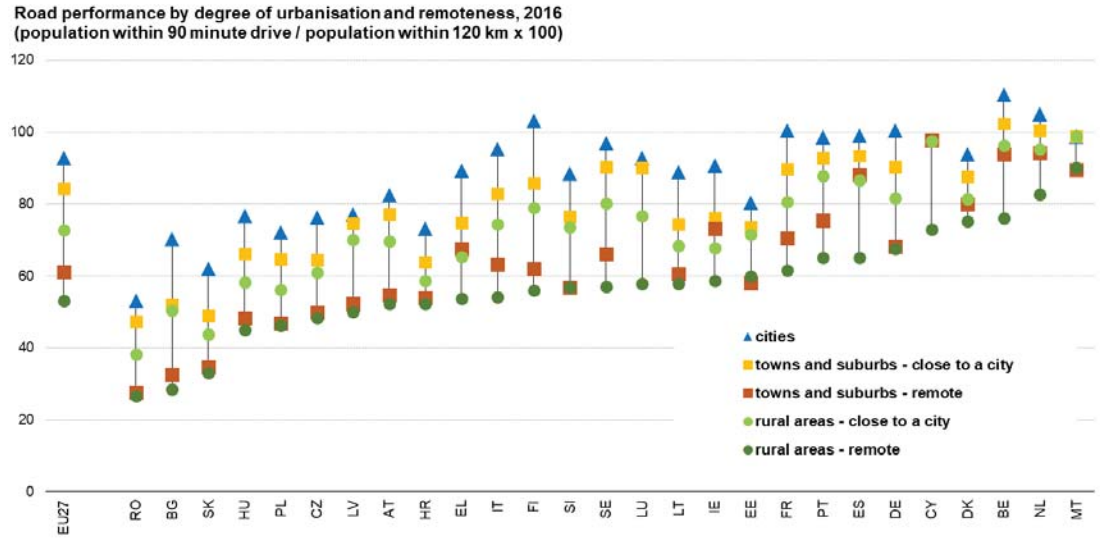
Rural areas in most eastern Member States tend to perform less well compared to the rural areas in other Member States.

A good road performance requires a sufficiently dense road network and a network of high-speed roads connecting the main population centres. In southern and north-western Member States, the road performance tends to be similar or above the EU average. In most eastern Member States, however, the road performance tends to be lower than the EU average for each of the classes of the Degree of Urbanisation (Figure 43).

On the one hand, comparing road transport performance between similar areas in different countries can reveal some shortcomings. A lower road transport performance in a rural area compared to other rural areas that cannot be explained by geographical constraints, such as mountains, can be an indication of the need for more investment in the road network.

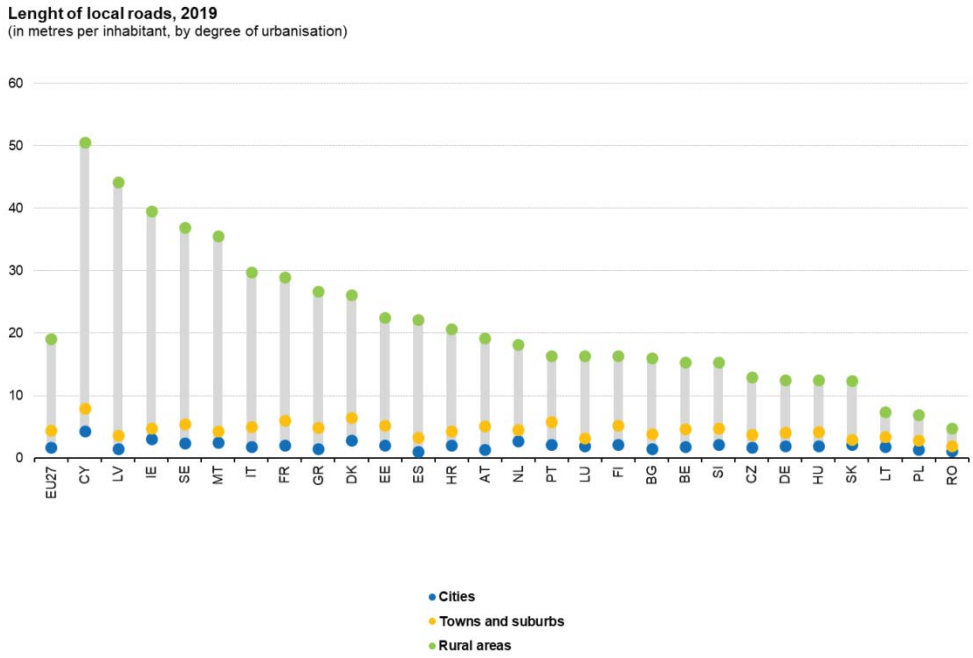
On the other hand, the comparison of road transport performance between different types of areas within the same country requires a careful assessment. The lower transport performance in rural areas as compared to cities does not automatically imply an underinvestment in road infrastructure in rural areas. Achieving a moderate road transport performance in rural areas requires far more kilometres of roads than in a city; indeed the length of local roads per residents in rural areas is 10 times higher than in a city (Figure 44)

Figure 43 Road performance by Degree of Urbanisation and remoteness, 2016



Source: REGIO calculations based on European Commission, Road Transport in Europe, 2019.

Figure 44 Length of local roads, 2019



Source: JRC calculations based on TomTom data and GEOSTAT 2011

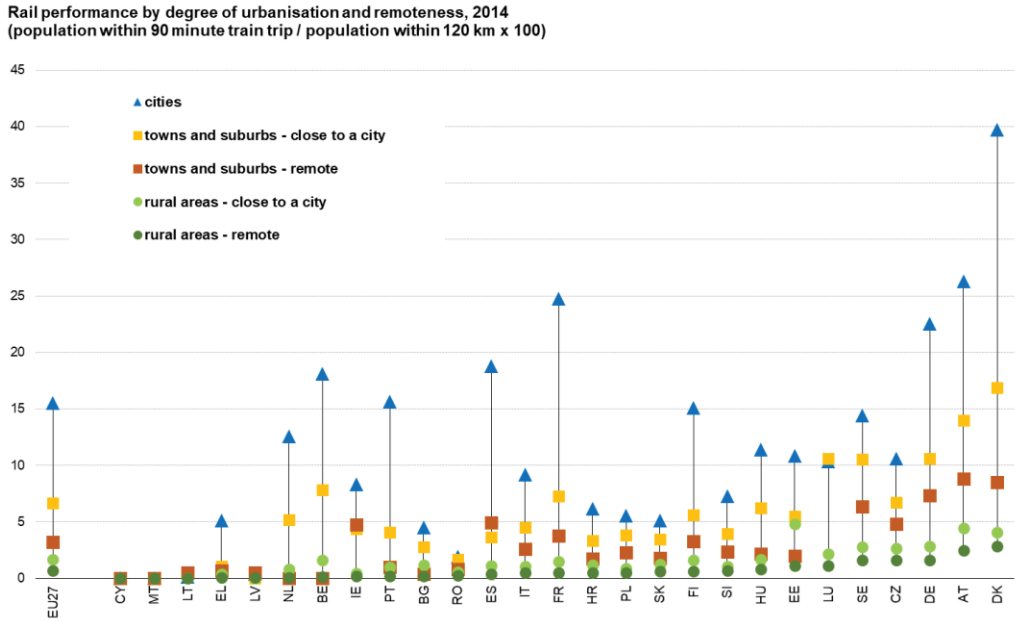
- Rail performance is low in most rural areas

The same performance indicator (see above for road performance) has also been calculated for rail trips[63] with a short walk at both ends of the rail trip (Figure 45). In the EU, rail performance in rural areas is only 1% compared to 8% in towns and suburbs and 16% in cities[64]. Rail services generally operate between cities, towns and suburbs and it is rare to find a train station in a rural area, especially one with frequent departures. Because of the higher construction and operation cost of rail services as compared to bus routes, rail requires a large number of users making it more complex for rural areas. In absence of comprehensive data on bus routes for all of the EU, it is not possible to assess to what extent bus routes compensate for the lack of rail in rural areas.

[63] European Commission, *Rail transport performance in Europe: Developing a new set of regional and territorial accessibility indicators for rail*, 2020. https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2020/rail-transport-performance-in-europe

[64] European Commission, *Rail transport performance in Europe*, 2020.

Figure 45 Rail performance by Degree of Urbanisation and remoteness, 2014

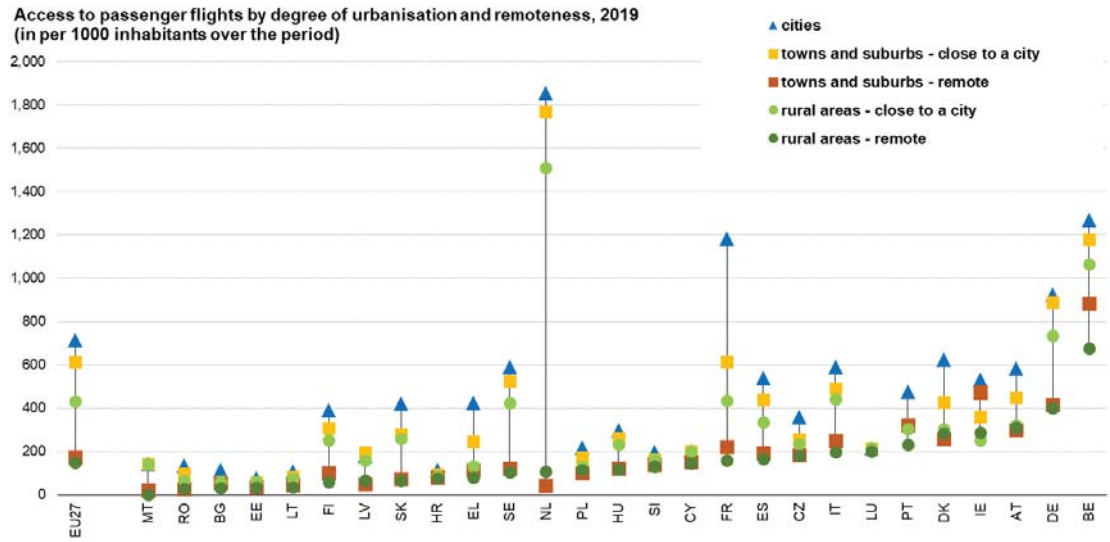


Source: REGIO calculations based on European Commission, Rail transport performance in Europe, 2020.

- Access to passenger flights is higher in rural areas close to a city

Access to passenger flights (i.e. within a 90 minute drive) is primarily determined by the proximity to cities in the EU (Figure 46). City residents have access to about 700 daily flights compared to only around 160 for remote rural areas and remote towns and suburbs. People living in rural areas close to a city have access to 430 daily flights, towns and suburbs close to a city have access to 600 flights. Among rural areas, however, there is a substantial amount of variation. In six Member States, rural residents can reach more than 300 daily flights, while in seven they can reach less than 100.

Figure 46 Access to passenger flight by Degree or Urbanisation and remoteness, 2019



Source: DG REGIO calculations

- **Fixed broadband covers almost everyone, but high-speed broadband access lags in rural regions**

Almost all EU households (97%) had access to fixed broadband in 2020, although only 77% were connected. The access share was only slightly lower in rural regions (90%) with an even lower figure of connected rural households. Since 2011, next generation access (NGA) broadband connectivity has vastly improved in rural regions. In 2020 the EU-27 share of rural households with NGA broadband was 60% against an EU target[65] of 100% access to fast broadband internet in rural areas by 2025. EU average for all households was 87%.[66]

Regarding Very High Capacity Network (VHCN) total coverage showed a fast increase in the same period, while in rural regions growth was clearly lower, leading to a significant connectivity gap between total and rural coverage. [67].

In rural and remote regions, less than 40% of the households are covered by VHCN broadband compared to more than 62% in urban regions (Figure 47). Regions close to cities seem to benefit

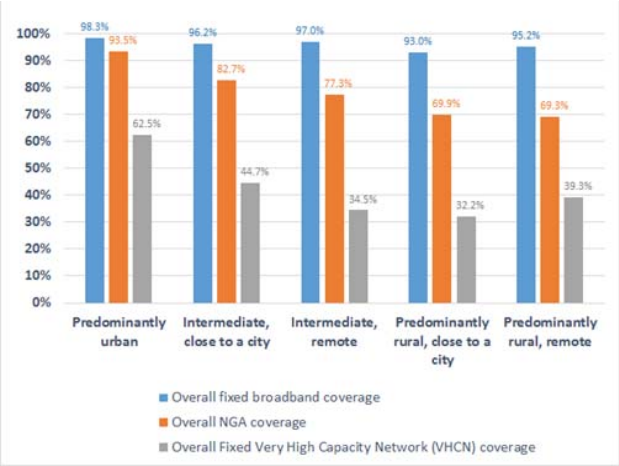
[65] In December 2020, the Commission provided each EU country with tailor-made recommendations, to assist in the drafting of the national CAP strategic plans. Among others, the recommendations aim to ensure the compliance with Green Deal ambitions and more specifically six Farm to Fork and Biodiversity strategy targets. These are quantified EU level targets on use and risk of pesticides, sales of antimicrobials, nutrient loss, area under organic farming, high diversity landscape features and access to fast broadband internet. For more information see https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-strategic-plans_en and in particular COM(2020) 846 final, *Recommendations to the Member States as regards their strategic plan for the Common Agricultural Policy*).

[66] *Digital Economy and Society Index (DESI) report* available at: https://ec.europa.eu/digital-single-market/en/broadband-connectivity

[67] *DESI report*, 2020. https://ec.europa.eu/digital-single-market/en/broadband-connectivity

from the effect of proximity to main urban centers showing better access to NGA and VHCN than rural and remote regions[68].

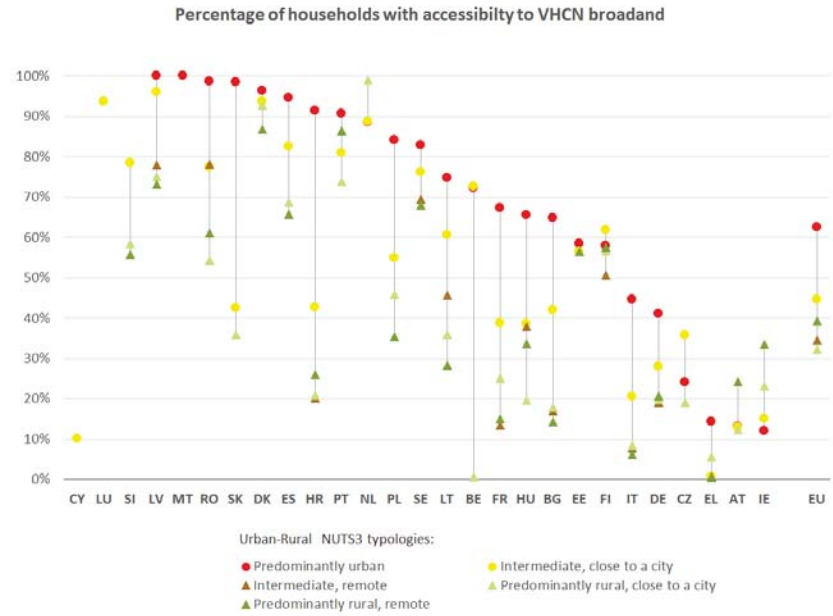
Figure 47 Households' accessibility to fixed-line broadband coverage per Urban-Rural NUTS-3 typologies in the EU, 2019



Source: JRC elaboration based on Point Topic (www.point-topic.com) and Eurostat data

Some Member States have a high share of rural households with access to high-speed broadband. For example, in Denmark 85% of the households in remote rural regions have such access, compared to less than 20% in Bulgaria, Greece, France and Italy (Figure 48).[97]

Figure 48 Households' accessibility to VHCN broadband coverage in the EU, 2019



Source: JRC elaboration based on Point Topic (www.point-topic.com) and Eurostat data

[68] Perpiña Castillo, C., et al., *Broadband accessibility and quality connection in Europe: an evaluation per degree of urbanisation and by urban-rural typology including remoteness*, Policy Brief. European Commission, JRC124456, 2021.

Despite recent improvements in NGA connectivity, the coverage of rural households with NGA broadband is still around 40% below the EU target[69]. Furthermore, the limited availability of VHCN broadband may increase the costs of doing business in rural areas relative to other parts of the EU.[70] In the future, new mobile technology, including 5G, may contribute to complement the VHCN coverage in a cost-effective way in rural regions. [71] Besides, an intelligent combination of terrestrial and space-based connectivity, ensuring high-speed broadband everywhere for resilient and cost-effective services and applications is also expected to contribute.

- Conclusions

Rural areas tend to have lower road and rail performance. Rural residents have to drive longer distance to reach different types of services and have access to fewer passenger flights. When looking at reachability of persons[72], rural areas close to a city consistently perform better than remote towns and suburbs and remote rural areas, while rural areas in most eastern Member States tend to perform less well compared to the rural areas in other Member States.

On the one hand longer distances and lower transport performance in rural areas relative to cities cannot be avoided due to more dispersed population. A service in a rural area has to draw from a much wider area to ensure it has sufficient users or clients than a service in a city.

On the other hand, to achieve the goal of 'no one should be left behind', access to basic quality services for rural population needs to be ensured, in particular for basic services such as retailer, doctor, pharmacy and bank. These services could be provided in villages to reduce the risk of isolation, especially of the most vulnerable population, such as elderly, children and those who do not have a driving licence or a car. Mobile service solutions, private-public partnerships, social enterprises can help to improve access to services in less populated areas.

Some rural areas manage to provide services within shorter distance and offer better transport performance than other rural areas. Whereas rural areas in southern and north western EU Member States tend to have a well performing road network, certain rural areas in eastern Member States may still need more investments in their road network.

Broadband is now almost universally available, including in rural regions. The coverage of high-speed broadband connections in rural regions, however, lags behind that in urban, despite recent growth in its rural coverage. Technological innovation and a combination of terrestrial and space-based connectivity, may facilitate the rolling out of Very High Capacity Networks in rural regions in a cost-effective way.

Finally, it should be noted that the analysis of availability of and access to basic infrastructure and services is subject to certain data constraints. For example, in absence of comprehensive data on bus routes for all of the EU, it is not possible to assess to what extent bus routes compensate for the lack of rail in rural areas.

[69] See beginning of this section.

[70] DESI report, 2020.

[71] OECD, *Rural Well-being*, 2020.

[72] Share of the population within 120 km that can be reached in a 90 min drive

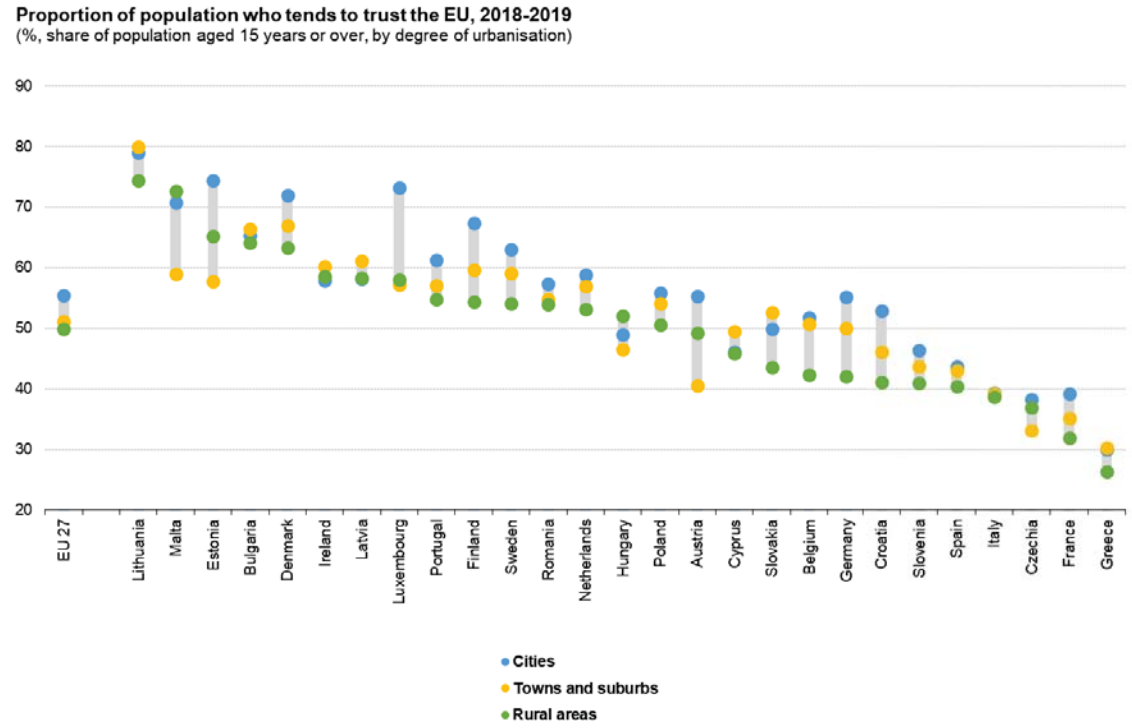
3.7. LOCAL DEMOCRACY

This section describes the trust of rural residents in different institutions, their level of political engagement and interests and voting behaviour.

- **Rural residents are less likely to trust their national government and the EU than city residents**

On average in 2018 and 2019, **50% of the rural residents tended to trust the EU** compared to 55% of the city residents (Figure 49). This trust gap between cities and urban areas appeared in virtually all Member States (23 out of 27). In four Member States, this gap was bigger than 10 percentage points (DE, FI, LU, HR). Nevertheless, the differences between Member States are far larger than between cities and rural areas within the same Member State. At the national level only 30% tends to trust the EU in Greece, compared to almost 80% in Lithuania, a gap of 50 percentage points.

Figure 49 Proportion of population who tends to trust the EU, average for 2018 and 2019



Source: JRC calculations, based on Eurobarometer (91.5, June 2019, ZA7576 - 91.2, March 2019, ZA7562 - 90.3, November 2018, ZA7489 - 89.1, March 2018, ZA6963) available at https://www.gesis.org/en/eurobarometer-data-service/search-data-access/data-access

This difference in trust can also be seen in voting patterns. On average, **rural voters are more likely to vote for parties that oppose EU integration** in European[73] and national elections[74]

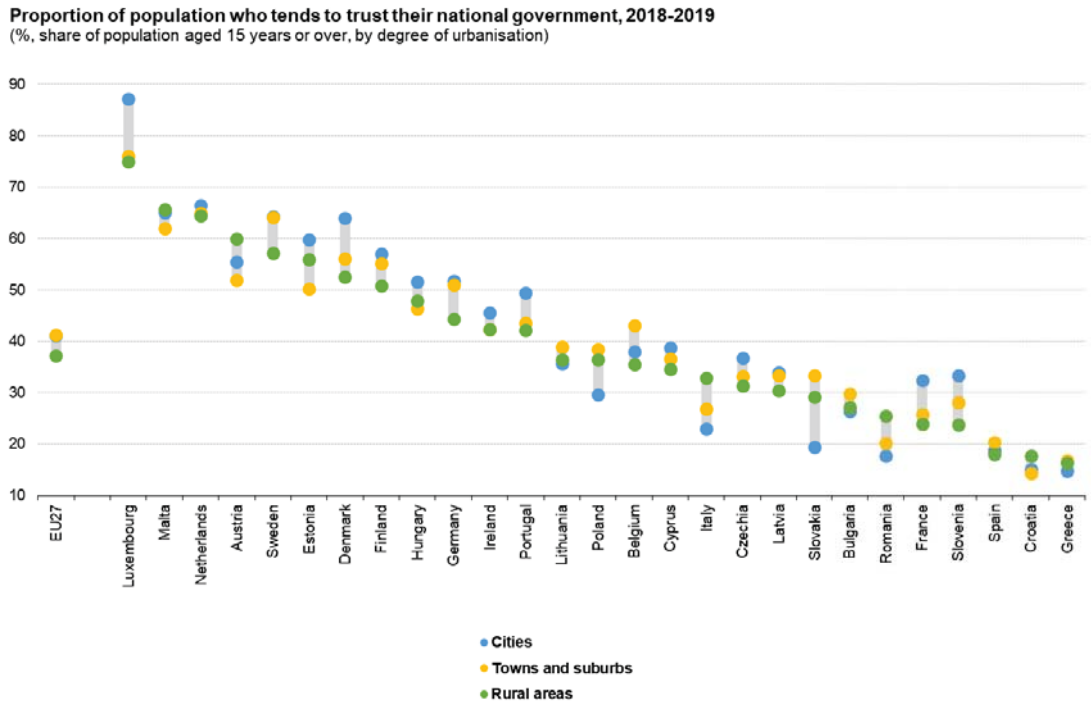
[73] Aurambout J.P. et al., *The Demographic Landscape of EU territories*, 2021.

compared to voters in cities, towns and suburbs. Rural residents are also less likely to think their vote counts in the EU (50%) than city residents (54%) (Eurobarometer average for 2018 and 2019).

The trust gap between rural areas and cities is slightly smaller for the national government (Figure 50). **Only 37% of rural residents tend to trust their national government compared to 41% in cities.** Out of the 27 Member States, 17 Member States have a smaller share of rural residents than city residents who tend to trust their national government. For trust in the EU, a clear difference can be seen as rural trust was lower than city trust in 23 Member States. As with trust in the EU, the difference between Member States is bigger than within a Member State. For example, at least 75% of the rural population tends to trust their national government in Luxembourg compared to less than 20% in Greece and Croatia.

At the same time, in relative terms trust in the EU tends to be higher than trust in their national government. Trust in the EU is higher than in their national government in rural areas in 22 Member States. In half the Member States, the share of rural residents who trust the EU is at least 10 percentage points higher as compared to those who trust their national government.

Figure 50 Proportion of population who tends to trust their national government, average for 2018 and 2019



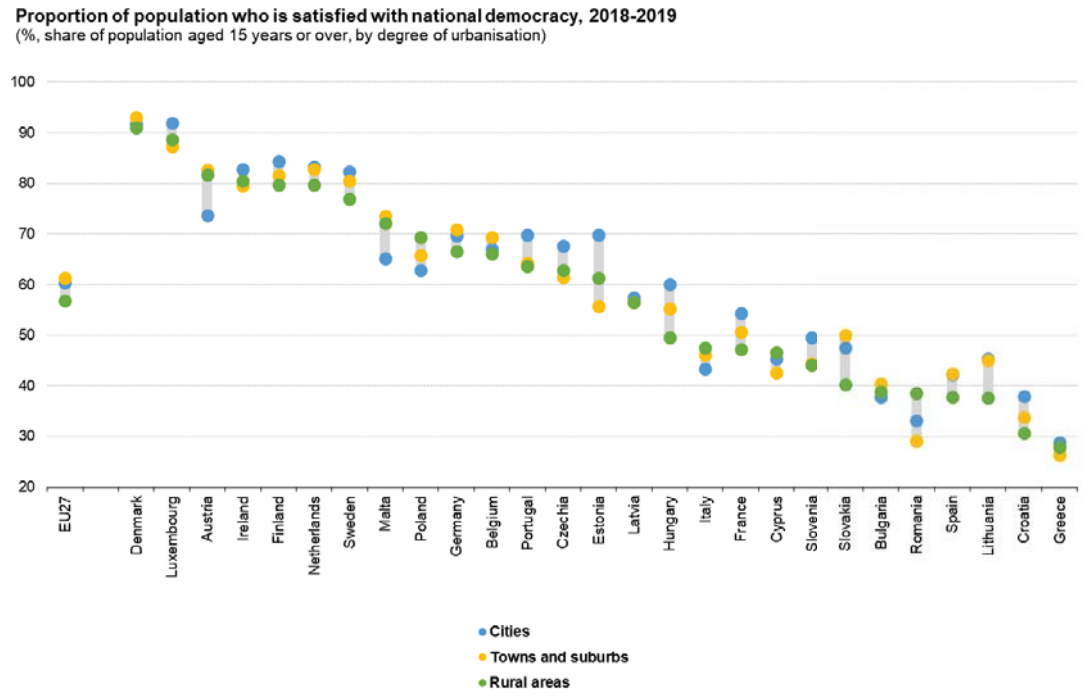
Source: JRC calculations, based on Eurobarometer (91.5, June 2019, ZA7576 - 91.2, March 2019, ZA7562 - 90.3, November 2018, ZA7489 - 89.1, March 2018, ZA6963) available at https://www.gesis.org/en/eurobarometer-data-service/search-data-access/data-access

[74] de Dominicis L, Dijkstra L., Ponarollo N., *The urban-rural divide in anti-EU vote: Social, demographic and economic factors affecting the vote for parties opposed to European Integration*, Working Paper, 2020. https://ec.europa.eu/regional_policy/sources/docgener/work/2020_05_discontent_en.pdf

- **Rural residents are less satisfied with their national democracy and less likely to vote in national elections**

The share of population who is satisfied with their national democracy is considerably higher than the share who trust in their national government. This may reflect that some people dislike the current government, but are happy with their democratic system. Nevertheless, **slightly fewer people in rural areas are satisfied with their national democracy as compared to cities (57% vs 60%)**. This pattern is consistent with lower satisfaction in rural areas as compared to cities in 20 out of the 27 Member States.

Figure 51 Proportion of population who is satisfied with national democracy, average for 2018 and 2019

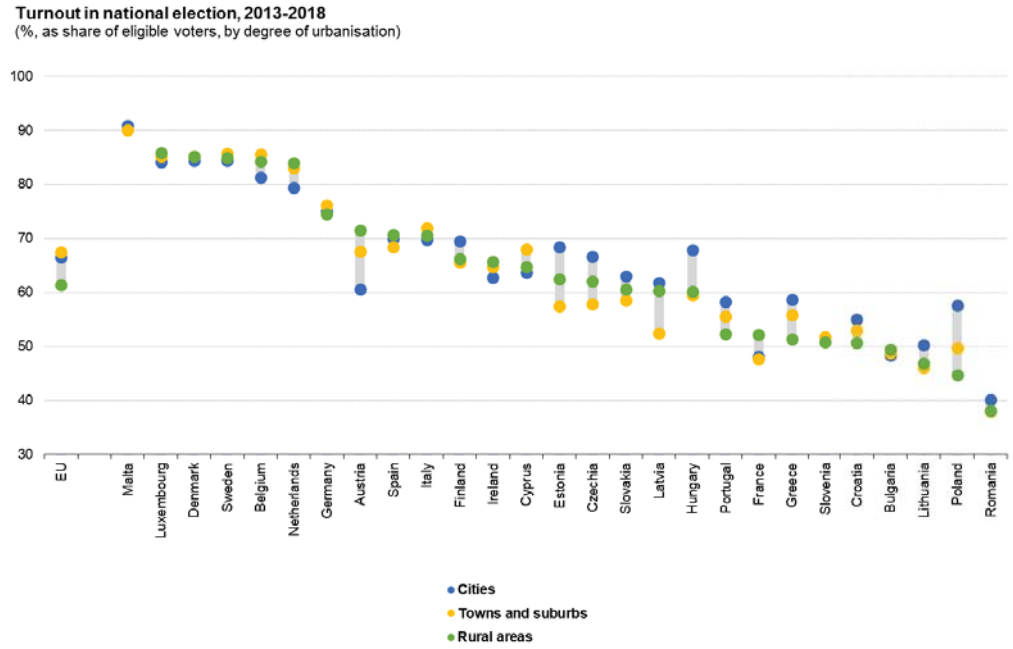


Source: JRC calculations, based on Eurobarometer (91.5, June 2019, ZA7576 - 91.2, March 2019, ZA7562 - 90.3, November 2018, ZA7489 - 89.1, March 2018, ZA6963) available at https://www.gesis.org/en/eurobarometer-data-service/search-data-access/data-access

Eligible voters in rural areas are less likely to vote in national elections as compared to those in cities (Figure 52). **Turnout in rural areas is 61% compared to 66% in cities in the most recent national election** between 2013 and 2018[75]. This pattern varies by Member State. For example, in Austria turnout was 11 percentage points higher in rural areas than in cities, while in Poland turnout was 13 percentage points lower in rural areas than in cites. In 12 Member States, turnout was higher in rural areas than in cities, but the difference was often small. As a result, overall turnout in cities is substantially higher than in rural areas.

[75] Dijkstra, L., Poleman H., Rodriguez-Psoe A., *The geography of EU discontent*, Working paper 12/2018. https://ec.europa.eu/regional_policy/sources/docgener/work/2018_02_geog_discontent.pdf

Figure 52 Turnout in national election, 2013-2018



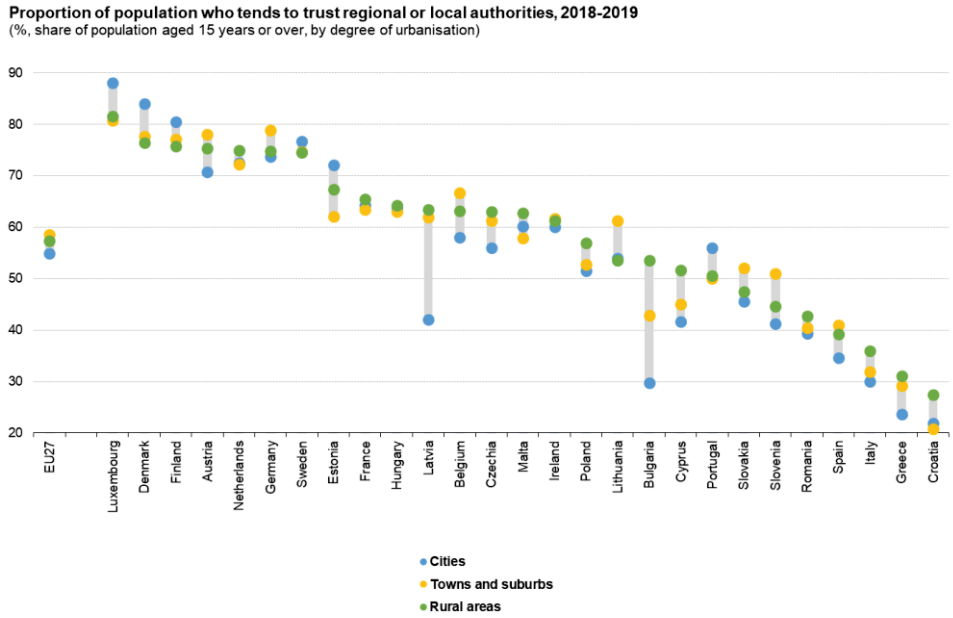
Source: Calculations based on Dijkstra, L., Poleman H., Rodrguez-Psoe A., The geography of EU discontent, 2018.

- Rural residents are more likely to trust local and regional authorities

Rural residents are more likely to trust local and regional authorities than city residents are (Figure 53). At the EU level, the difference is small: 57% in rural areas as compared to 55% in cities. The higher trust in rural areas is replicated in most Member States. In 20, a larger share of rural residents trusts local and regional authorities than city residents do. In some Member States, the gap between rural and city residents is particularly wide. For example, in Latvia and Bulgaria the share of rural residents who trust their local and regional authorities is more than 20 percentage points higher than share of city residents who do so.

Rural residents are more likely to trust local and regional authorities (57%) than their national government (37%) or the EU (50%). In all but one Member State (MT), rural resident are more likely to trust their local and regional authorities than their national government. The contrast with the EU is less pronounced, with 19 Member States where rural residents are more likely to trust their local and regional authorities than the EU. The proximity to local and regional politicians as compared to national and EU politicians may be one of the factors that explains this difference. As rural municipalities tend to have a smaller population, rural residents are more likely to know their politicians than city residents are.

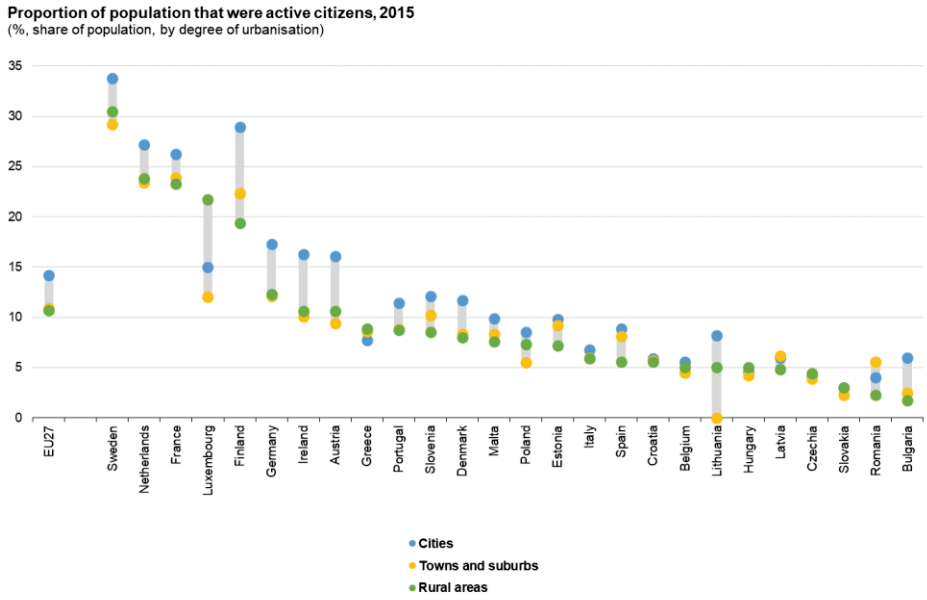
Figure 53 Proportion of population who tends to trust regional or local authorities, average for 2018 and 2019



Source: JRC calculations, based on Eurobarometer (91.5, June 2019, ZA7576 - 91.2, March 2019, ZA7562 - 90.3, November 2018, ZA7489 - 89.1, March 2018, ZA6963) available at https://www.gesis.org/en/eurobarometer-data-service/search-data-access/data-access

In 2015, **11% of rural residents were active citizens**, meaning that they had attended meetings, signed petitions, or otherwise participated in activities related to political groups, associations or parties. This was slightly lower than the **15% of city residents**. This difference was highly consistent with a rural resident less likely to be active than city residents in 23 out of 27 Member States. Rural residents are less likely to discuss politics frequently than city residents (15% vs 18%, Eurobarometer average for 2018 and 2019).

Figure 54 Proportion of population that were active citizens, 2015



Source: Eurostat (online data code: iilc_scp20)

In contrast to active citizenship, **rural residents were more likely to participate in formal and informal voluntary activities** (formal 20% and informal 24%) than city residents were (17% and 22%) in 2015.

- Conclusions

The overall picture that emerges is that rural residents have a different political outlook than city residents.

Rural residents are more likely to trust local and regional authorities (57%) than their national government (37%) or the EU (50%), contrary to the city residents. Rural residents are less satisfied with their national democracy and less likely to vote in national elections. Rural residents are also less likely to think that their voice counts in the EU and are more likely to vote for parties that oppose EU integration than city residents are.

Rural residents tend less to be active citizens, i.e. to attend a meeting, sign a petition, or otherwise participate in activities related to political groups, associations or parties than city residents are. In contrast, they are more prone to participate in formal and informal voluntary activities than city residents.

In part, these differences are the result of the different demographic, social and economic characteristics of rural residents compared to city residents[76]. Even if these differences can be explained by the different socio-economic characteristics of the rural population, they still lead to a lower voter turnout and different voting patterns. Better consultations of rural constituencies, more discussions of how to address rural issues and making it easier for rural residents to engage with political parties or to vote online may help to address this gap.

[76] Aurambout J.P., et al., *The Demographic Landscape of EU territories*, 2021.

3.8. BIOECONOMY

This section describes the current and future opportunities of the bioeconomy and reflects on the challenges related to its implementation.

- The EU bioeconomy offers many opportunities – it could reach up to EUR 3 trillion by 2050 - but there is a need to better integrate primary producers

The bioeconomy includes and interlinks land and marine ecosystems, all primary production sectors that use and produce biological resources and all industrial sectors that use biological resources and processes for the production of food, feed, bioenergy and bio-based products.

The bioeconomy is **one of the Union's largest and most important sectors** encompassing agriculture, forestry, fisheries, aquaculture, food, bio-energy and bio-based products generating **EUR 614 billion of value added and employing around 17.5 million people**.[77] The whole agri-food chain represents 75% of the employment of the EU bioeconomy, and two-thirds of its turnover.

The relative contribution of primary sectors to the EU bioeconomy is significantly lower in terms of value added (33%) than in terms of the number of persons employed (55%).[78] In addition, primary producers (farmers and forestry owners) are not very well integrated vertically into the bioeconomy value chain. Therefore, they play the role of biomass suppliers rather than producers of bioproducts. The bioeconomy thus represents an opportunity for new actors to enter production with positive effects on rural employment, where larger-scale and small-medium multifunctional (agroecology, agrogorestry, carbon, integrated multi-trophic aquaculture) farms coupled with de-centralised smaller-scale biorefineries co-exist[79].

Regarding the **EU bioeconomy turnover trends until 2050, different scenarios exist**. In a low growth scenario, the primary production sectors (agriculture, forestry, fisheries) show a stable evolution over time. The food industry is also growing steadily while other traditional biobased sectors (paper, wood production, textiles) continue their decreasing trends in the EU, mainly due to increasing imports from more cost-competitive regions such as China. In a high growth scenario, the primary production sectors also show a stable evolution over time but other sectors

[77] Ronzon, T.; et al., *Developments of Economic Growth and Employment in Bioeconomy Sectors across the EU*, Sustainability 2020, 12, 2020. https://doi.org/10.3390/su12114507

[78] European Commission, *A sustainable Bieoeconomy for Europe: strengthening the connection between economy, society and the environment*, Updated Bioeconomy Strategy, 2018. https://op.europa.eu/en/publication-detail/-/publication/edace3e3-e189-11e8-b690-01aa75ed71a1/language-en/format-PDF/source-149755478

[79] Fritsche U., et al., *Future transitions for the Bioeconomy towards Sustainable Development and a Climate-Neutral Economy - Knowledge* Synthesis Final Report, Publications Office of the European Union, Luxembourg, 2020.

are estimated to grow. In this case, the total annual turnover of the EU bioeconomy sector **could reach up to EUR 3 trillion by 2050**.[80]

Figure 28 Bioeconomy sectors turnover/value in EU low growth (left) and high growth (right) scenario for biobased (chemical) industry, euros billion in constant prices (2011).

Figure 23. Bioeconomy sectors turnover/value in EU – *low* growth scenario for biobased (chemical) industry, € billion in constant prices (2011)

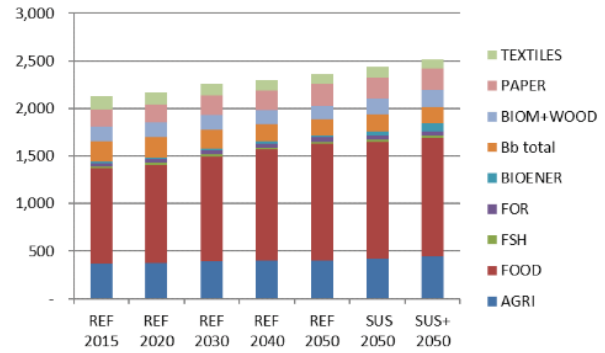
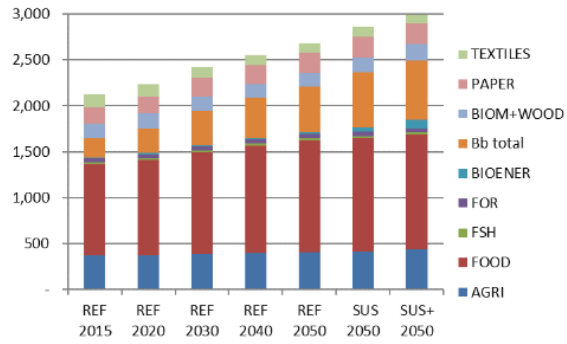


Figure 24. Bioeconomy sectors turnover/value in EU – *high* growth scenario for biobased (chemical) industry, € billion in constant prices (2011)



Source: M'Barek R., Philippidis G., Ronzon T., Alternative Global Transition Pathways to 2050, 2019.

Regarding employment, the further development of urban, coastal and rural areas across Europe is expected to lead to the creation of 400,000 new highly skilled jobs by 2035 in the bio-based sector and up to 700,000 by 2050, mostly in these areas.[81]

- Conclusions

Global challenges such as climate change, land and marine ecosystem degradation, coupled with a growing population and the COVID-19 crisis impose seeking new ways of producing and consuming resources that respect our planetary boundaries, moving away from a linear economy based on extensive use of fossil and mineral resources. To tackle these challenges, the way natural resources are managed needs to be improved and healthy ecosystems need to be maintained through a sustainable, regenerative and circular bioeconomy that will also have an important role in mitigating EU emissions and reaching climate neutrality in 2050.

The bioeconomy is considered as a major tool for reviving rural areas, creating more innovative jobs in primary production and processing, contributing to generational renewal and fighting de-population of rural areas. It can help rural regions to identify place-based, cross-cutting initiatives that enhance environmental conservation and regeneration while creating new jobs, improving food and water security, and promoting a transition to a climate-neutral and circular economy. There are also opportunities in terms of implementation of synergies in new biobased value chains across regions based on their smart specialisations.

[80] M'Barek R., Philippidis G., Ronzon T., *Alternative Global Transition Pathways to 2050: Prospects for the Bioeconomy*, Technical Reports, Publications Office of the European Union, 2019. https://ec.europa.eu/jrc/en/publication/alternative-global-transition-pathways-2050-prospects-bioeconomy

[81] Biobased Indudustries Consortium, *Strategic Innovation & Research Agenda (SIRA)*, 2017. https://biconsortium.eu/about/our-vision-strategy/sira

The sustainable bioeconomy has also the potential to support primary producers in creating additional outlets for higher value added products, improving the resource efficiency of their activities and spurring innovation in the primary sector. **Primary producers should play a more central role into the value creation of the sustainable bioeconomy supply chain**, which should be achieved by increasing awareness and knowledge through targeted advisory services as well as supporting new business and cooperation models.

However, its **implementation in terms of research and innovation capabilities needs** further efforts to accelerate the transformation by bringing innovations faster into the market.
Institutional capacity is a key factor. Redirecting action and investment from current practices into fully-fledged circular development pathways in rural regions requires a cultural change and a new mix of skills in rural communities, coupled with proper incentives for local governments. Rural communities should be supported through training and education, both on the technical aspects as well as business models and management, so as to create new employment opportunities during the transition to a low carbon economy[82].

[82] Fritsche, U., et al., *Future transitions for the Bioeconomy towards Sustainable Development and a Climate-Neutral Economy - Bioeconomy opportunities for a green recovery and enhanced system resilience*, Borzacchiello, M.T., Sanchez Lopez, J. and Avraamides, M., (eds.), Publications Office of the European Union, Luxembourg, 2021.

Chateau, Jean & Mavroeidi, Eleonora, *The jobs potential of a transition towards a resource efficient and circular economy*, OECD Environment Working Papers, No. 167. Paris, 2020. https://doi.org/10.1787/28e768df-en.

3.9. INNOVATION, COOPERATION AND NETWORKS

This section deals with the rural areas as spaces for innovation and identifies opportunities and challenges thereto.

- Rural areas are innovative, even more when they cooperate

Rural areas are commonly assumed to be less innovative than urban areas, because of their lower density of people and businesses, lower connectivity and accessibility, and a more limited presence of highly educated people, universities and research centres, criteria that are considered as key conditions for innovation.[83] Several studies nuance or contradict this assumption and highlight that **innovation types, patterns and enablers vary across countries, regions and rural and urban localities**.[84] This is something that current ways to measure **innovation** (including European innovation scoreboards[85] and indicators for Sustainable Development Goals[86]) **insufficiently capture** because they are applied at a too-wide geographical scale (NUTS-2), focused on forms of innovation that are more typical of dense regions and less well adapted to capture process, market, organisational or social forms of innovation that do not result in patents or science publications.[87]

The OECD highlights that **rural and urban regions alike have the potential to innovate and grow**[88], while United Kingdom's innovation agency NESTA stressed in a key report on rural innovation that many innovations in health, housing and transport have emerged primarily in response to growing demand in the primary sectors in rural areas (such as the need to transport materials or manage land-use that led to the development of geographic information systems widely used by drivers today) and that some rural areas have shown extraordinary success in transforming themselves into global centres of innovation (e.g. the technology park of Sophia-Antipolis (FR)). NESTA further argue that there is an **important relationship between rural natural resources and innovation.** They add that the **growing strategic importance of**

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[83] European Commission, *Regional Innovation Scoreboard 2019.* https://ec.europa.eu/growth/industry/innovation/facts-figures/regional_en

[84] Mahroum, S., et al., *Rural innovation,* National Endowment for Science, Technology and the Arts (NESTA), 2007. https://www.nesta.org.uk/documents/236/rural_innovation.pdf; ESPON KIT, *ESPON Knowledge Innovation Territory (KIT) – Final report – Executive summary*, ESPON 2013/2012. https://www.espon.eu/sites/default/files/attachments/KIT_Final-Report_Executive-Summary.pdf; OECD, *Rural-urban partnerships: an integrated approach to economic development*. 2013. https://www.oecd.org/regional/rural-urban-partnerships-an-integrated-approach-to-economic-development.htm; da Rosa A., et al,, *Smart Specialisation and Innovation in Rural Areas*, EUR - Scientific and Technical Research Reports, Publications Office of the European Union, 2014. https://s3platform.jrc.ec.europa.eu/documents/20182/114990/JRC90000_S3_Innovation_RuralAreas.pdf/8731e203-42b2-4a14-9350-8c50456ea068

[85] European Commission, *Innovation scoreboard*. https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en

[86] United Nations, *Sustainable development goals - Goal 9.* https://sdgs.un.org/goals/goal9

[87] European Commission, *Innovation scoreboard*.

[88] OECD, *Rural-urban partnership*, 2013.

sustainable technologies that rely on rural resources has enhanced this relationship and triggers a renewed political interest in the role of rural areas in the wider economy.[89]

All forms of innovation happen in all rural sectors and fields of community life. Examples include resource-efficiency driven innovations in farming, process optimisation in food and bio-based industries, social innovation changing value chain organisation, service provision or valorisation of cultural heritage. Technical and technological innovations in the sectors related to the management of natural resources also mostly happen in rural areas. A range of scientific publications have found **rural innovation to have some or all of the following characteristics**[90]:

- **Innovation is initially sparked by** internal and external **challenges** (e.g. withdrawal of the public sector from service provision, tougher environmental regulations) rather than by the creation of knowledge inside the rural area (as research centres are usually less numerous in rural areas).
- **Innovation tends to be more incremental:** it is more about repurposing, adapting, using differently existing knowledge or technology than about inventing brand new knowledge.
- **Social innovation typically plays a great role** alongside technical or technological innovation, as solving many of the rural challenges requires inventing new ways of doing things, new ways of delivering services, new business models, and new ways of cooperating coming bottom-up from rural community members.
- **Cooperation and networking are essential:** as rural areas are less dense in people, businesses and knowledge creation facilities, people need to cooperate with one another internally as much as possible, and also to **cooperate and network** to source knowledge from people and institutions **outside** their local area, whether from urban centres or by exchanges with other rural areas, within the country, across borders or transnationally. Research has shown that active cooperation (including cross-border and international cooperation) can compensate for the lack of resources inside the rural area.

- Weaker enabling conditions make it challenging to express rural innovation potential

Challenges to rural innovation mostly relate to **weaker enabling conditions and environments** that prevent the full expression of rural innovation potential. These differ depending on the

[89] Mahroum, S., et al., *Rural innovation*, 2007.

[90] Polman, N., et al., *Classification of Social Innovations for Marginalized Rural Areas,* SIMRA Deliverable 2.1., 2017. http://www.simra-h2020.eu/index.php/deliverables; ESPON KIT, *Final report – Executive summary*, 2013/2012. Ubels, H., Haarsten, T., Bock, B., *Social innovation and community-focussed civic initiatives in the context of rural depopulation: for everybody by everybody?* Project Ulrum 2034, Journal of rural studies, 2019. https://doi.org/10.1016/j.jrurstud.2019.02.019; OECD, *Rural well-being,* 2020. Hjaldottir, R., Makkonen, T., Mitze, T., *Inter-regional innovation cooperation and structural heterogeneity: does being a rural, or border region, or both, make a difference?,* Journal of rural studies, 2019. https://doi.org/j.jrurstud.2019.10.008; Cofré-Bravo, G., Klerkx, L., Engler, A., *Combinations of bonding, bridging, and linking social capital for farm innovation: How farmers configure different support networks*, Journal of rural studies, 2019. https://doi.org/10.1016/j.jrurstud.2019.04.004

specific institutional, economic, social and environmental conditions of each area, which vary greatly across Europe.

The effect of education levels in the area seems important for innovation capacity in a majority of sectors[91], although firms may source an important proportion of knowledge from within or from distant networks.[92] Education levels of people living in rural areas, in particular tertiary education, are improving but lower than the EU average, as mentioned in this document's chapter on education, and several elements of human and social capital (e.g. skills, willingness to cooperate) can be weaker, depending on the regions.[93] A critical mass of innovation actors is also important, in particular research centres.[94] The capacity to profit economically from knowledge creation and exploitation varies greatly across Europe, with regions in west and north of Europe, being more advanced than eastern and northern Europe regions[95]. Compared to urban areas, the rural innovation eco-systems have fewer higher education institutions and specialised research facilities, resulting in fewer highly skilled researchers that can provide innovation input and interact with local businesses, via local clusters for example. Similarly, SMEs and entrepreneurs, who are generally smaller and with limited individual capacity to invest in R&D, may face less developed business and innovation support infrastructure and services, and less technology transfer or knowledge exchange actors. Innovation support services may be accessible but not designed to support the kind of innovations and innovation actors that are in rural areas[96]. Rural areas are often left out of innovation chains and with limited access to innovation capacities in the cities.[97]

Limited infrastructure and **low accessibility and digital connectivity also act as barriers** to cooperation, networking and sourcing of knowledge from outside **for innovation**, as they limit access of people and businesses to new markets and services (including innovation support services) and educational opportunities. This can also limit the attractiveness of rural areas as places to live and work for innovative people and businesses. As shown in this document's chapter on infrastructure, access to digital infrastructure still bears challenges for rural regions. Beyond the infrastructure challenges, there are barriers in rural areas around digital skills and

[91] Garcia-Cortijo, M. C., Castillo-Valero, S., Carrasco, I., *Innovation in rural Spain. What drives innovation in the rural-peripheral areas of southern Europe?,* Journal of rural studies, 2019. https://doi.org.10.1016/j.jrurstud.2019.02.027

[92] North, D., and Smallbone, D., *The Innovativeness and Growth of Rural SMEs during the 1990s*, Regional Studies, 34:2, 145-157, 2020. https://doi.org/10.1080/00343400050006069

[93] Pisani, E., et al., *Social capital and local development: from theory to empirics,* Palgrave Macmillan, 2017. https://doi.org/10.1007/978-3-319-54277-5

[94] Garcia-Cortijo, M. C., Castillo-Valero, S., Carrasco, I., *Innovation in rural Spain*, 2019.

[95] ESPON KIT, *Final report – Executive summary*, 2013/2012.

[96] INTERREG EUROPE, *The challenges and necessity of rural innovation* - Policy brief from the policy learning platform on research and innovation, 2019. https://euagenda.eu/upload/publications/untitled-197653-ea.pdf

[97] INTERREG, *project RUMORE*. https://www.interregeurope.eu/RUMORE

uptake of digital technologies by both people and businesses which need to be lifted simultaneously as the infrastructure is provided.[98]

The European investment bank (EIB) explored key characteristics of innovation in the agri-food and bio-based sectors, both of which they identify as important drivers of employment in rural areas. In agri-food, they identified a **risk-adverse behaviour and low innovation rates**. Less than 50% of all agri-food companies in the EU undertook innovation activities over the three years preceding the study, while only 9% innovated in core areas such as technology, products and processes. This figure contrasts with the need for innovation to help the sector respond to a raising food demand and sustainability challenges. For the EIB, this behaviour is driven mostly by market characteristics, competition that is generally more on price than on quality, innovation or environmental impact. Price competition, in combination with low margins and long payback periods, limits the appetite and possibilities for innovation and risk-taking. This also reduces the financing of agri-food innovation, which suffers from a **fragmented landscape** and **lack of specialised investors** with sufficient knowledge and willingness to take risks. The most frequently mentioned reason that finance was not obtained was an unclear or unproven business model. Other reasons were poor commercial outlook, limited financial track record and regulatory uncertainty. A visible financing gap exists regarding the scale-up of smaller agri-food innovators that earn EUR250 000 to EUR5 million per year. The agri-food innovators that reported difficulties in accessing finance were looking for loans of EUR 250 000 to EUR 1.5 million.[99] The EIB equally identified a financing gap in the bio-based industries sector, in particular for funding the scaling-up of innovation from pilots to demonstration or industrial scale plant, with uncertainties on regulation and demand development also playing a key role.[100] Access to finance is also highlighted as one of the key concerns of new entrants into farming, who tend to be promoters of green and social innovation.[101]

Challenges to cooperation and networking include, for joint projects carried by beneficiaries located in different regions or eligible under different programmes, administrative and legal obstacles, difficulties in accessing finance for cooperation (lack of alignment and coordination between various support programmes, or for the timing of calls for projects), distance, insufficient skills (including language in cross-border cooperation and networking or between different types of actors (e.g. scientists and businesses), in particular when it comes to facilitating interactive bottom-up innovation projects that are best suited to fit the needs of rural people and

[98] EIP-AGRI, *EIP-AGRI Seminar: New skills for digital farming, 2020*. https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_seminar_new_skills_for_digital_farming_final_report_en_2020.pdf; Bacco, F., Barsocchi, P., Brunori, G., et al., *Synthesis report on the taxonomy and inventory*, 2020.

[99] EIB, *Feeding future generations: How finance can boost innovation in agri-food*, 2019. https://www.eib.org/attachments/thematic/feeding_future_generation_summary_en.pdf

[100] EIB, *Access-to-finance conditions for Investments in Bio-Based Industries and the Blue Economy*, 2017. https://www.eib.org/attachments/pj/access_to_finance_study_on_bioeconomy_en.pdf

[101] Helms, C., Pölling, B., Lorleberg, W., *Inventory of new entrant case studies,* NEWBIE, 2019, http://www.newbie-academy.eu/wp-content/uploads/2019/09/Deliverable-2.2-Inventory-of-new-entrant-case-studies.pdf

businesses). There can be also difficulties in identifying connectors or innovation intermediaries that can help link businesses across borders.[102]

- Green transition, digitalisation, social challenges: three powerful drivers for rural innovation, cooperation and networking

Opportunities for rural innovation come mostly from i) **dynamic developments in some sectors or technologies**, ii) the challenges related to rural difficulties that can act as **triggering factors for innovation**; and iii) the **efforts needed in response to the COVID crisis**.

There is a **renewed dynamism of research and innovation in the resource-based economy and the natural resources on which such innovation depends are mainly located in rural areas**. Public investments in agricultural research and development for example are raising since 2016 after a period of stagnation or decline.[103] This direction is further pushed by major policy objectives[104] responding to increasing concerns over dependence on fossil fuels, resource scarcity, climate change and biodiversity loss. The sectors linked to the resource-based economy include the bio-based economy, the circular economy, renewable energies, food, farming and forestry. Rural areas provide space for the development of renewables, which could turn into an important source of income for rural communities.[105] Ecosystem services and innovation around their valuation and valorisation through recreational activities is also an important field for rural innovation.[106] A majority of local innovation projects (53%) funded under the agricultural European innovation partnership (EIP-AGRI)[107] focus on **alternative types of farming** such as organic farming, agroecology, adapting circularity principles to farming, and bio-based production, in close connection with increasing investments in research activities on more sustainable farming. A significant proportion of them also address wider value chain innovation needs around food quality, processing and nutrition (22%) alongside circularity and bio-based sectors with e.g. projects on waste and by-products (9%) or energy management (5%).[108]

Improved connectivity and digitalisation are an opportunity to address many of the weaknesses linked to low density of people and businesses that hinder the emergence of rural innovation: they could improve skills, education, training, knowledge and information flows, opportunities for cooperation and networking, access to employment, access to services and access to markets and enabling technologies. This is true in the **primary and secondary sectors**, where digital innovation plays a central role in improving productivity, reducing environmental impact and

[102] RUMORE, *"Fresh Fruit" Pilot Project in Central Macedonia*. https://www.interregeurope.eu/rumore/news/news-article/6945/fresh-fruit-pilot-project-in-central-macedonia/

[103] Eurostat, *Share of the government budget appropriation or outlays on research and development,* Data Browser, 2019. https://ec.europa.eu/eurostat/databrowser/view/tsc00007/default/table?lang=en

[104] See COM (2019) 640 Communication The European Green Deal.

[105] OECD, *Rural Well being*, 2020.

[106] RUBIZMO, *Anticipated Futures for Modern Rural Economies*, Short policy brief derived from deliverable 1.2, 2018. https://rubizmo.eu/attachment/render/fbbb3655-bef5-4ed6-9a49-3db33baa2cf7

[107] For info see https://ec.europa.eu/eip/agriculture/en/european-innovation-partnership-agricultural

[108] EIP-AGRI, *EIP-AGRI: 7 years of innovation in agriculture and forestry*, 2020.

connecting producers and consumers (digital farming, sensors in agri-food processes, modelling to optimise resource use and production and processing methods, web platforms for marketing and traceability). This also holds for the service sector, where digital technologies can help develop **e-services** (education, health, bank, mobility), and **e-governance and participatory processes**, as explored in smart villages[109]. Technology is transforming in particular the provision of health and care services. When used correctly, the latest technologies can improve both the quality of care and social cohesion. However, digitalisation can be beneficial for rural areas and communities only if the basic conditions in terms of infrastructure, skills and accessibility are met **quickly enough** to enable rural businesses to remain competitive, especially in remote areas, if the potential labour-saving effects of digitalisation are mitigated with the creation of new rural jobs and adequate training or re-skilling for workers, where necessary. A further condition is that relevant applications matching the specific needs of rural actors are developed through participatory and place-based approaches. Important opportunities come from **developing digital innovation hubs, local technology hubs, brokers or intermediaries** (e.g. local fablabs, smart villages etc.) that ease access to digital tools and needed skills for community actors or small entrepreneurs and SMEs that have no direct digital production process or activity.[110] Many actors of the social economy, for example social entrepreneurs, are involved in such programmes (open food networks, local taxi platform cooperatives, coops/community organising delivery, mobility, sustainable tourism like fairbnb) which help them use digital technologies to optimise profitability.

Public service decline, or specific shocks such as those experienced during the COVID-19 pandemic, can increase **pressure for rural businesses to be more innovative** or for rural people to find solutions themselves, especially through **social innovation**.[111] This has been observed e.g. in catering, child and health care, education and business development support[112]. In some cases, innovation triggered by rural challenges develops at the interface of rural and urban areas and in partnership. Innovative approaches providing benefits for rural and urban citizens alike have been observed for example for local food procurement[113], or integrated mobility systems organised through inter-municipal collaboration[114].

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[109] ENRD, *Briefing on smart villages: how to ensure digital strategies benefit rural communities, 2015*. https://enrd.ec.europa.eu/sites/enrd/files/enrd_publications/smart-villages_orientations_digital-strategies.pdf

[110] Brunori, G., et al., *Experts recommendations to boost digitalisation of agriculture, forestry and rural areas by 2040*, DESIRA, 2021, https://desira2020.eu/wp-content/uploads/2021/02/DESIRA_LTVRA_General_fv.pdf

[111] Slee, B., Mosdale, L., *SIMRA Policy brief- How policy can help bring about social innovation in rural areas*, SIMRA, 2020. http://www.simra-h2020.eu/wp-content/uploads/2020/02/2020-02-03-Policy-brief_Slee-Mosdale_FINAL.pdf

[112] SIMRA, *How to deliver rural services? Collection of examples of social innovation*, 2018. http://www.simra-h2020.eu/wp-content/uploads/2018/03/Brochure-Rural-Services-web_last.pdf; ENRD, *Business models for revitalising rural services, briefing working document*. https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_briefing_business-models.pdf ;

[113] ROBUST, *Webinar: Public Procurement for a Sustainable Food Supply*, 2020. https://rural-urban.eu/publications/webinar-public-procurement-sustainable-food-supply

[114] Bauchinger, L., et al. *Developing Sustainable and Flexible Rural–Urban Connectivity through Complementary Mobility Services*, Sustainability 2021. https://doi.org/10.3390/su13031280

The improvement of **social capital** (i.e. collective norms, trust and networks) and the **diversification of rural populations through rural newcomers** (educated pensioners, remote workers, new entrants into farming etc.) is an opportunity to increase the average education levels of rural populations[115]. This is likely to accelerate with COVID-19 pandemic in the most attractive and well-connected areas. The need to cope with the impact of the COVID-19 pandemic brings opportunities around **evolution in working methods, distance learning and telework that could trigger skilled people to relocate in rural areas**, especially in the most accessible rural areas. COVID-19 pandemic also triggered a renewed interest for rural tourism at the expense of destinations abroad or in denser places, which could prove interesting for innovation in this sector.[116]

Opportunities for cooperation and networking stem from the sense of community that is common to many rural villages. This strong community spirit comes from the smaller size of the communities, common challenges faced, tradition, culture and values. This is embedded in the notion of social capital, recognised in literature as playing a key role in rural development and in rural innovation[117]. The COVID-19 pandemic has seen multiple examples (e.g. organising local food supplies, compensating for labour shortages on farm, caring for the elderly) of local rural communities coming forward with their own solutions to tackle challenges that emerged during the COVID-19 pandemic in a spirit of community solidarity, and a strong interest for sharing this knowledge and experiences facilitated also by digitalisation. [118]

- **A swift improvement of enabling conditions is imperative for rural innovation to transform trends into positive outcomes**

It is very hard to predict the impact that current trends will have on rural innovation, cooperation and networks. Several megatrends[119] are rather positive for the innovation potential of rural areas (increased interest in the sustainable bio-based sector and circular economy, evolution of working patterns with e.g. more telework, raising interest in healthy food and sustainable diets) and are likely to improve some of the enabling factors (digitalisation). However, these trends express themselves in very **variable ways in different rural areas in Europe and are likely to lead to varying results by 2040**. The way innovation develops in different territorial contexts is very variable[120] and the various dimensions of rural innovation are still largely under-researched. The

[115] Pisani, E., et al., *Social capital and local development: from theory to empirics,* Palgrave Macmillan, 2017. https://doi.org/10.1007/978-3-319-54277-5

[116] Tondelli, S., de Luca, C., Elisabeth Aberg, H., *Thinking beyond the COVID-19 crisis: heritage-based opportunities for the regeneration of rural areas*, RURITAGE, 2020. https://www.ruritage.eu/news-events/thinking-beyond-the-covid-19crisis-heritage-based-opportunities-for-rural-regeneration-eu-vison-paper/

[117] Pisani, E., et al., *Social capital and local development: from theory to empirics*, 2017.

[118] European Network for rural development, *Rural responses to the Covid crisis*, 2020. https://enrd.ec.europa.eu/rural-responses-covid-19-crisis_en ; de Luca, C., Tondelli, S., & Åberg, H., *The Covid-19 pandemic effects in rural areas*, 2020.

[119] i.e. trends that have an effect on a global scale.

[120] ESPON KIT, *Final report – Executive summary*, 2013/2012.

outcome will depend on the pace of change and the capacity of rural territories to keep up with that pace depending on their local conditions.

The key drivers of rural change are, according to OECD, i) additive and distributive manufacturing; ii) digital connectivity; iii) cloud computing and the internet of things; iv) drones; v) driverless cars; vi) the future of education; vii) the future of health; viii) shifting values and preferences; ix) decentralised energy systems; and x) the future of food. Technologies that create more **deconcentrated and network-based distributive production systems** have the potential to reshape the geography of economic activity in favour of rural areas. Innovation will be critical for rural areas to benefit from these key drivers of change as will key infrastructures (transport, connectivity etc.). OECD also posits that "rural areas **will play a central role in meeting the major global opportunities and challenges** of the 21st century around climate change, new energy sources, circular and bioeconomy, food and nutrition security for a growing global population, reducing poverty and ensuring the sustainable provision of natural resources that will support the next production revolution".[121]

The paradigm **shift to a green and circular economy** is a driver for a high level of technological and social innovation, which may give areas currently leading in these fields a clear head start. Regions and communities taking ownership of their economic development by using their local assets and designing their own economic model will benefit from the increased autonomy and the flexibility their approach provides them, notably in associated domains such as social development or environmental preservation.[122] Innovation in business models that are able to create and retain value in rural areas will be key.[123] Beyond developments in farming, forestry, food and bio-based sectors, developments in **smart mobility** and the use of technologies to better match supply and demand in ways that specifically answer rural needs (e.g. ride sharing and e-hitchhiking apps[124]) are important for the green transition.

The "4th industrial revolution is however also expected to accelerate territorial differences".[125] Following current developments in the technology sectors such as artificial intelligence, nanotechologies, decentralised computing and robotics, the innovations will be far-

[121] OECD, *Edinburgh Policy Statement on Enhancing Rural Innovation*, OECD, 2018. https://www.oecd.org/regional/Edinburgh-Policy-Statement-On-Enhancing-Rural-Innovation.pdf

[122] ESPON, *Policy brief on shrinking regions*, ESPON 2020, 2017. https://www.espon.eu/sites/default/files/attachments/ESPON%20Policy%20Brief%20on%20Shrinking%20Rural%20Regions.pdf

[123] RUBIZMO, *Anticipated Futures for Modern Rural Economies*, 2018.

[124] SMARTA Website https://ruralsharedmobility.eu/; European network for rural development, *Smart villages and rural mobility.* https://enrd.ec.europa.eu/sites/enrd/files/enrd_publications/smart-villages_brief_rural-mobility.pdf

[125] Böhme, K., Lüer, C., & Toptsidou, M., *Towards a European geography of future perspectives: A story of urban concentration. In Territorial Cohesion*, Springer, 2019. https://doi.org/10.1007/978-3-030-03386-6_9; Réchard, D., et al., *Global trendometer. Essays on medium-and long-term global trends*, European Parliamentary Research Service, 2016. https://espas.secure.europarl.europa.eu/orbis/sites/default/files/generated/document/en/EPRS_STU%282016%29573301_EN.pdf ; Böhme K., Lüer C., Toptsidou M., *Towards a European Geography of Future Perspectives: A Story of Urban Concentration*, in: Medeiros E. (eds), *Territorial Cohesion. The Urban Book Series*, Springer, 2019. https://doi.org/10.1007/978-3-030-03386-6_9

reaching. This could prove problematic as most of the rural areas with demographic challenges may lack the skilled human capital or the infrastructure to develop competitive industrial centres, thus potentially creating "regions left behind".[126] **Trends in the intensity of trade and in business model development** will also impact rural innovation, as many activities are included in international trade flows that frame their economic conditions and the means they have to invest in research and innovation.[127]

Digitalisation is likely to accelerate as a result of the COVID-19 pandemic and of ambitious policy agendas. Financial capacity to upgrade the infrastructure alongside action to address the digital skills divide and other key elements to support digitalisation will be key determinants of the situation in 2040[128].

Education levels should improve overall and are likely to increase faster in rural areas that will be able to benefit from the post-COVID-19 pandemic attraction to rural areas. However, **trends in the development of human and social capital are likely to be highly place-dependent.** Counter-urbanisation is predicted by some foresight experts[129] while scientists observe increasing trends of "multi-locality living" that should also **favour knowledge flows** to rural areas.[130] The possibility to attract people looking for a high quality of life in a more peaceful and healthy environment than in major cities may offer development paths for **strengthening human and social capital, hence innovation** and residential economies in rural regions, including those with disadvantages.[131]

- Conclusions

There is a wide need and potential for rural innovation to address the challenges rural communities are facing, help them seize opportunities and develop novel tailored solutions to improve the well-being of rural people while bringing social, environmental and economic progress for EU society as a whole, in particular with regard to the green transition.

Innovation is already happening to various degrees in different places, in all forms (from technological to social innovations) and in all sectors of rural life and economy, with incremental,

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[126] COM (2021)118 Communication 2030 Digital Compass: the European way for the Digital Decade.

[127] OECD, *Rural Well being*, 2020.

[128] Bacco, F., Barsocchi, P., Brunori, G., et al., *Synthesis report on the taxonomy and inventory,* 2020.

[129] Knowledge@Warton, *The Post-COVID-19 World Will be Less global and Less Urban*, Opinion, 2020. https://knowledge.wharton.upenn.edu/article/post-covid-19-world-will-less-global-less-urban/

I-INTELLIGENCE, *Our post-COVID future*. https://postcovidfuture.com/cities/

[130] Ovaska, U., et al., *Multilocality: Case Studies from Helsinki, Frankfurt/Rhein-Main, Wales, and the Metropolitan Region of Styria*, ROBUST, 2020. https://rural-urban.eu/publications/multilocality-case-studies-helsinki-frankfurtrhein-main-wales-and-metropolitan-region

[131] ESPON KIT, *Final report*, 2013/2012. Gløersen, E., Balsiger, J., Cugusi, B., & Debarbieux, B., *The role of environmental issues in the adoption processes of European Union macro-regional strategies*, Environmental Science & Policy, 97, 58-66. 2019, https://www.sciencedirect.com/science/article/pii/S1462901118312991; Mayer, H., Baumgartner, D., Gloersen, E., & Michelet, J. F., *Theoretical basis for a coherent federal strategy for mountain and rural areas in Switzerland*, 2014, https://archive-ouverte.unige.ch/unige:78571

challenge-driven, bottom-up innovation powered by cooperation and collective action playing a key role.

But the innovation potential remains only partially tapped due to weaker enabling conditions than those enjoyed by urban counterparts, and socio-economic situations that limit the capacity to take risks or the capacity to access finance.

To enhance their innovative activities, rural innovators need to benefit from an enhanced and supportive enabling environment or "innovation ecosystem" that guarantees access to physical and digital infrastructure and services, improved access to knowledge (including through dedicated rural research), advice and business development support, cooperation around collective projects, and improved connections and networking to source inspiration from good examples, foster entrepreneurship and build links with science. To build such a supportive environment or "innovation ecosystem" requires the full recognition of rural innovation potential and performance. This includes improved indicators that capture the specifics of rural innovation, and integrated strategies to enhance rural knowledge and innovation systems or use of tools and concepts for driving innovation, investments, talent attraction and generation of business opportunities such as living labs, smart villages or start-up villages.

3.10. CLIMATE, ENVIRONMENT, ECOSYSTEM SERVICES, BIODIVERSITY, NATURE-BASED SOLUTIONS

This section deals with challenges and opportunities of rural areas in the context of climate change, the need to look after natural resources and the potential of the sustainable bioeconomy, ecosystem services and nature-based solutions.

- Rural areas are affected by climate change, the depletion of natural resources and biodiversity decline and are part of the solution

Despite the Paris Agreement, current predicted global greenhouse gas (GHG) emissions trends are well above those consistent with a 2°C pathway. If current trends continue[132], global warming is already likely to reach 1.5°C between 2030 and 2050, with multiple effects including increasing the frequency of floods, droughts, wildfires, heatwaves and extreme weather events, shifting species distribution and the resilience of invasive species, causing sea levels to rise, and impacts on freshwater availability. **Whilst the specific impacts may vary across the highly diverse rural areas of the EU, the consequences of climate change represent a common challenge**.

Biodiversity is declining faster than at any time in human history[133]. Over the past 40 years, global wildlife populations have fallen by 60%[134]. Pollinators, on which 75% of global food crops rely[135][136], are in steep decline[137]. Water scarcity is an increasing problem in some areas of the EU, and the quality of freshwater also raises concerns[138].

Well-functioning ecosystems are essential for a healthy and sustainable environment, necessary to provide food, water and clean air, but also make an invaluable contribution to economic

[132] IPCC, *Special report. Global Warming of 1.5 ºC*, 2018. https://www.ipcc.ch/sr15/

[133] IPBES, *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, 2019. https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf

[134] WWF, *Living planet Report: Aiming Higher*, 2018. https://www.wwf.eu/campaigns/living_planet_report_2018/#:~:text=LIVING%20PLANET%20REPORT%202018%3A%20Aiming%20higher&text=The%20Living%20Planet%20Report%202018,on%20Earth%20to%20the%20edge

[135] IPBES, *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, 2019.

[136] IPBES, *Summary for policymakers of the assessment report of IPBES on pollinators, pollination and food production*, 2016. https://ipbes.net/sites/default/files/spm_deliverable_3a_pollination_20170222.pdf

[137] IPBES, *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, 2019.

[138] EEA, *The Problems of water stress*, 2020. https://www.eea.europa.eu/publications/92-9167-025-1/page003.html

output.[139] Over half of global GDP depends on nature and the services it provides; construction, agriculture, and food and drink are the main three dependent sectors.[140] Well-functioning ecosystems also increase resilience, for example against pandemics such as COVID-19 pandemic.[141] Investment in natural capital is recognised as offering high economic returns and positive climate impact.[142]

Rural land management contributes to both climate change and biodiversity decline[143] but can also be highly instrumental in addressing them. Rural areas contribute to GHG emissions and climate change, particularly through land use management (emissions from fertilisers, livestock, soil carbon release, drainage of organic soils, deforestation). For example, 53% of the EU's anthropogenic methane emissions come from agriculture[144], and nitrogen values in 65-75% of agricultural soils exceed critical levels beyond which eutrophication can be expected.[145] Land management can also contribute positively, for example raising the water table in peatland areas reduces GHG emissions, and high nature value farming systems support many rare species of plants and insects, and raising the water table in peatland areas reduces GHG emissions. Housing and mobility characteristics of rural communities also contribute to climate change differently from urban settlements (lower density housing in rural areas[146], longer distances travelled to reach services).[147]

Another challenge is linked to public perceptions of countryside and what constitutes valuable or acceptable landscapes. For example, wetland reedbeds may be perceived as less valuable than

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[139] OECD, *Biodiversity: Finance and the Economic and Business Case for Action*, report prepared for the G7 Environmental Ministers's Meeting 5–6 May 2019. https://www.oecd.org/env/resources/biodiversity/biodiversity-finance-and-the-economic-and-business-case-for-action.htm

[140] WEF, *Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and Economy*, New Nature Economy project, Geneva, 2020.

[141] EEA, *COVID-19 measures have mixed impacts on the environment*, 2020. https://www.eea.europa.eu/highlights/impact-of-covid-19-lockdown

Environmental Finance, *Investors turn to natural capital for resilience and reputation*, 2019. https://www.environmental-finance.com/content/analysis/investors-turn-to-natural-capital-for-resilience-and-reputation.html

[142] Environmental Finance, *Investors turn to natural capital for resilience and reputation*, 2019. https://www.environmental-finance.com/content/analysis/investors-turn-to-natural-capital-for-resilience-and-reputation.html

[143] EEA, *State of nature in the EU. Results from reporting under the nature directives 2013-2018*, EEA Report, n.10, 2020. https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020

[144] COM(2020)*663 Communication on an EU strategy to reduce methane emissions*.

[145] EEA, *The European environment — state and outlook* 2020, 2020.

[146] Timmons D., Zirogiannis N., Lutz M., *Location matters: Population density and carbon emissions from residential building energy use in the United States,* Energy Research & Social Science, Volume 22, 2016. https://www.sciencedirect.com/science/article/pii/S2214629616301943#:~:text=Urban%20living%20in%20the%20United,in%20turn%20decreases%20carbon%20emissions

[147] OECD, *Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change*, OECD Rural Studies, OECD Publishing, Paris, 2021. https://doi.org/10.1787/83025c02-en .

trees planted on drained land, or semi-natural scrub-rich extensive pasture may be considered "untidy" or "unproductive" compared to improved grassland. This can also affect farmers' willingness to change land use in favour of more healthy ecosystems.

Competition for land use is a perpetual challenge, and one which is likely to intensify post-COVID-19 with increased scope for remote working and interest in moving to rural areas for a better quality of life. Whilst this can bring benefits in terms of revitalising rural communities, the balanced use of land and other resources should be taken into account, not only as regards agriculture, but also housing, roads, bioeconomy activities or renewable energy.

Land cover change, including loss of traditional farming landscapes and land and soil degradation are key causes of the loss of ecosystem services. Around 25-30% of agricultural soils in the EU are currently losing organic carbon, receiving more nutrients than they need, are eroding, compacted or suffer secondary salinization.[148]

It is important to ensure the future diversity of land use, rural-urban balance, biodiversity and the use of space for living and working, while minimising impact on existing natural habitats or to avoid fragmenting ecosystems, since it is hard to restore them once damaged.

Many of the public goods essential for mitigating and adapting to climate change, and addressing biodiversity decline, originate in rural areas. For example, water supplies for urban areas are purified as they filter through forests and soils upstream in the catchment area; riverside water meadows protect towns from seasonal flooding; afforestation, reforestation, sustainable forest management and restoration of wetlands sequester carbon from the atmosphere and protect existing carbon stocks.

[148] European Commission, *Caring for Soil is Caring for Life, Report of the mission board on Soil health and Food*, Independent expert report, Publications office of the EU, 2020. https://op.europa.eu/en/publication-detail/-/publication/4ebd2586-fc85-11ea-b44f-01aa75ed71a1

Figure 56 Example of ecosystem services

Source: PBL, WUR, CICES 2014, in de Knegt B., Indicators of Ecosystems Services for Policy Makers in the Netherlands, in Schröter M. et al., (eds.), Atlas of Ecosystem Services, Springer, 2019.

- **Rural communities are potentially exposed to greater costs associated with climate and environment transition**

Paradoxically, whilst being the source of climate and environment solutions that benefit society as a whole, **rural communities are also potentially exposed to greater costs associated with the climate and environment transition**. For example, longer travelling distances to access services such as hospitals, schools, shops and banks, coupled with greater dependency on private cars due to poor public transport, incurs higher travel costs.[149]

The climate and environment transition will lead to reduction or closure of many current resource extraction industries typically based in rural areas, such as coal mines and mineral extraction. Sustainable and climate friendly ways to use these former sites could include forestry or renewable energy, aiming to generate economic, social and environmental benefits.

[149] OECD, *Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change*, 2021.

The increasing incidence of flooding, droughts and wildfires presents particular difficulties for agriculture and forestry. Some of the problems such as soil degradation, water pollution, pollinator decline, invasive species, nutrient run-off, droughts and floods are already incurring economic costs, either through reduced yields/lost production, or the cost of addressing the resulting problems such as algal blooms. These costs make it harder for businesses and communities to find funds to invest in improved systems with higher environmental performance.

Even though many climate and environment-friendly investments and system changes are cost-effective in the longer term, short-term competition for resources and/or a long lead-in before a positive cash-flow is generated inhibit uptake of beneficial changes. Similarly, even where public support is provided, uncertainty over its long-term continuity can constrain uptake (e.g. for rewetting carbon-rich drained farmland). Providing appropriate incentives, pump-priming, and eliminating barriers for the take-up of nature-based solutions is a challenge that must be overcome in order to ensure wider implementation of beneficial approaches.

Techniques and methods recognised as beneficial may not be widely implemented due to lack of widespread knowledge and skills. For example, the transition to more sustainable agricultural systems such as agro-ecology or organic farming requires a high level of management and specialist understanding of ecological systems and processes.

- **The green transition presents a wide range of potential opportunities for rural communities**

The green transition to a climate neutral future with flourishing biodiversity presents a wide range of potential opportunities for rural communities to thrive, provided that there is an adequate enabling framework.[150] Communities should be encouraged to identify opportunities and be empowered to seize them.

There are many win-win solutions, which combine climate, environment and socio-economic benefits. For example, restoring soil health and natural landscapes damaged by human exploitation can be one of the most effective and cheapest ways to combat the climate crisis[151]. Nature-based solutions can generate significant business and employment opportunities[152]. Natural ecosystems, which are self-regenerating, can be a springboard for new integrated, resilient wealth-creating systems. The appeal of beautiful countryside, landscapes, wildlife and rural heritage to tourists is well known and many rural regions of the EU benefit from this. **The benefits of NATURA 2000 have been valued at between EUR 200-300 billion per year.**[153]

[150] Dwyer J., *Fostering resilient agro food futures through a social ecological systems framework: Public private partnerships for the delivering ecosystems services in Europe, Ecosystems Services*, Volume 45, 2020. https://www.sciencedirect.com/journal/ecosystem-services/vol/45/suppl/C

[151] Iribarrem A., Beyer H.L. et al., *Global priority areas for ecosystem restoration*, Nature 586, 2020. https://www.nature.com/articles/s41586-020-2784-9

[152] BenDor T, et al., *Estimating the Size and Impact of the Ecological Restoration Economy*, PLOS ONE Journals, 2015.

[153] EEP, *Natura 2000 and Jobs: scoping study*, 2017. https://ec.europa.eu/environment/nature/natura2000/pdf/Natura_2000_and%20_jobs_executive_summary.pdf

As the wider importance of nature conservation for a functioning economy, and its contribution to GDP and well-being, become more widely recognised, so the willingness of both public and private entities to make climate and environmentally beneficial investments should increase. Wise and effective investments are not "either-or", but "both", where the economy and the environment are not conflicting objectives, but complementary.

The cost of reducing GHG emissions has been decreasing thanks to technological developments.[154] Renewable energy costs have plunged in the last decade, becoming cheaper than fossil fuels in many countries, spurring a boom in clean power, for example solar and wind farms. Electric cars and domestic heating that is not dependent on fossil fuels could soon be cheaper than current fossil-fuel based energy and help to address energy poverty, especially when combined with measures to improve the energy efficiency of homes.

Achieving these climate and environment benefits is expected to generate jobs and economic opportunities for rural areas. This will include clean and affordable energy, the circular economy, sustainable and smart mobility, a pollution-free environment, thriving ecosystems and sustainable food systems, which will benefit both rural and urban citizens alike.

- Expected trends

Even if current climate pledges are fully honoured by all parties, climate change is still heading far from the 1.5°C pathway[155]. Scientists consider an increase of 2°C, compared to the temperature in pre-industrial times, as the threshold beyond which there is a much higher risk that dangerous and potentially catastrophic changes in the global environment will occur[156]. There is only a very short time left to avoid reaching irreversible tipping points.[157]

Global biodiversity loss is projected to increase to 38-46% by 2050.[158] The interaction of many factors leads to the decline of biodiversity and the degradation of ecosystems, including habitat and land use change[159], over-exploitation of natural resources, pollution and climate change.[160]

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[154] The Guardian, *Reaching UK net zero target cheaper than we thought, says climate adviser*, 2020. https://www.theguardian.com/environment/2020/nov/12/reaching-uk-net-zero-target-cheaper-than-we-thought-says-climate-adviser?CMP=Share_iOSApp_Other

[155] SEI, *The production gap: the discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5oC or 2oC*, 2019. https://productiongap.org/wp-content/uploads/2019/11/Production-Gap-Report-2019.pdf

[156] EC, *Causes of climate change*. https://ec.europa.eu/clima/change/causes_en

[157] IPCC, *Special report*, 2018.

[158] IPIBES, *The assessment on land degradation and restoration*, Montanarella L., Scholes R., Brainich A. (eds.), Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, Bonn, Germany, 2018. https://www.ipbes.net/sites/default/files/2018_ldr_full_report_book_v4_pages.pdf

[159] EEA, *State of nature in the EU*, 2020.

[160] IPBES, *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*, 2019.

A range of other drivers linked to climate change and biodiversity will affect rural communities in the period up to 2040:

- There will be increasing production and supplies of renewable energy.
- Population shift to some rural communities will increase pressure on housing (both to provide for newcomers and to avoid existing community members, especially the young, being priced out of market).
- Water scarcity and increasing cost will affect economic activities requiring water, such as tourism and agriculture, driving shifts to systems requiring less water. Water scarcity will also increase environmental degradation such as wildfires in forests, moorland and peatland.

- Conclusions

The gravity of the climate crisis and ecological emergency must not be underestimated. These intrinsically linked issues, and the policy instruments designed to address them, have significant impacts on the social and economic wellbeing of rural areas and will continue to do so during the period up to 2040 and beyond.

The increasing incidence of flooding, droughts and wildfires presents particular difficulties for agriculture and forestry, with a need to adapt management practices and/or enterprises to increase resilience (e.g. growing more drought resistant crop varieties, improving soil health and avoiding soil erosion, planting trees for water management, increased fire prevention management such as grazing forest undergrowth).

Pollution from agriculture negatively affects a wide range of habitats and species. Changing agricultural practices to improve sustainability, in particular by reintroducing appropriate grassland management and reducing fertiliser use is recognised as one of the key actions needed to reduce pressure on the environment.[161]

Currently, the main policy measures encouraging environmentally beneficial land management are designed to compensate for costs incurred and income foregone, principally for compliance with WTO green box rules. If take-up on the scale required to meet the targets of the Green Deal is to be achieved, mechanisms are needed which reward the value of provision of public goods, not simply the cost of providing them. This must include the development of market-based mechanisms and the use of fiscal measures, since public funds are unlikely to be sufficient to meet needs. It is important to identify and promote win-win solutions that maintain and enhance natural capital without exploitation or degradation, whilst generating economic opportunities.

The focus in settlements should be on converting/reusing existing buildings, using brownfield sites, and ensuring that all new housing is climate neutral, both in construction and in use. Effective and coordinated planning systems, working with local communities, will be needed.

The transition to a safe green future for all also has to be people centred, leaving no-one behind, and recognising that rural communities have an important role to play in preserving and protecting the natural resources upon which our societal wellbeing depends. Implementing a

[161] EEA, *State of nature in the EU*, 2020.

just transition implies working with rural communities, establishing social dialogue and seeking consensus on how to mitigate the cost of measures, ensuring that those least able to pay do not bear disproportionate costs. It also requires adequate support, helping the most vulnerable to make the most of opportunities offered by the greening of the economy.

The implementation of an ambitious climate and nature restoration agenda through integrated systems thinking, including reform of economic and fiscal incentives, and effective multi-level governance, and valorising Copernicus Earth Observation data and applications, will enable rural communities to seize new opportunities and to move to an environmentally sustainable rural future.

3.11. INTEGRATED TERRITORIAL DEVELOPMENT

This section deals with relationships between different types of rural and urban areas beyond administrative borders looking at challenges and opportunities for rural areas.

- Places are connected and interdependent in many ways

Administrative boundaries do not reflect well territorial realities, connections, and functional linkages. Communities interact in many ways and the geography and intensity of these interactions depend on the area looked at (close to metropolitan area, within a network of small towns, cross-border, remote, coastal, mountain). It also depends on the issue looked at (catchment area or sea basin for pollution or water supply, commuting zone/mobility area for labour market or access to services, ecological corridors for biodiversity protection etc.). Rural areas are thus interdependent with one another and with urban areas in multiple ways and at multiple scales, within a country and across boundaries.

Urban-rural linkages refer to the **complex set of bi-directional links** (e.g. demographic flows, labour market, economy and tax flows, public service provision (e.g. health, education), mobility, environmental or ecosystem and cultural services, leisure assets, food and bio-based products, land-use planning etc.) **that connect places**. They shape up in a space where urban and rural dimensions are physically and/or functionally integrated, blurring the distinction between urban and rural, and crossing traditional administrative boundaries. These linkages can express themselves between a city with an urbanised core and a peri-urban area or within a wider functional area covering a central city and adjacent rural hinterland, as exemplified by the JRC in metropolitan areas (e.g. Brno, CZ), medium-size cities (e.g. Goteborg, SE) and small towns and settlements in rural regions (e.g. Plasencia, ES).[162] Although with limited effect for remote areas, they can also connect geographically distant places through functional links (e.g. linking agricultural production areas to urban markets, river basins etc.).[163]

Border regions[164] are more likely to be rural regions. One third of the population of rural regions, lives in a border region (35%) compared to 21% of the total EU population. As a result, the rural population is more likely to live close to a national border. In many cases, the rural border regions are also remote, located far from capitals and other cities.

Rural areas are also playing a key role in the governance of macro-regions. Currently, there are **four macro-regional strategies[165] in place where rural areas are actively involved in defining**

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[162] Fioretti, C., et al., *Handbook of Sustainable Urban Development Strategies*, Scientific and Technical Research Reports, Publications Office of the European Union, 2020, http://publications.jrc.ec.europa.eu/repository/handle/JRC118841

[163] Woods, M., Heley, J., *Conceptualisation of Rural-Urban Relations and Synergies*, ROBUST deliverable 1.1, 2017. http://www.rural-urban.eu/sites/default/files/D1-1%20Conceptualisation%20of%20Rural-Urban%20Relations%20and%20Synergies.pdf; OECD, *Rural-urban partnerships*, OECD, 2013.

[164] For a definition of a border region see https://ec.europa.eu/eurostat/statistics-explained/index.php/Territorial_typologies_manual_-_border_regions

[165] European Commission, *Macro-Regional Strategies*. https://ec.europa.eu/regional_policy/en/policy/cooperation/macro-regional-strategies/

joint challenges, be it in sea basins, along river shores or mountain ranges, in which the various rural areas are connected, ecologically (e.g., Alpine range, Baltic sea), economically (tourism), or historically (e.g., Balkans). Especially two of these strategies cover a relatively high share of population living in rural areas: the Baltic (27 %) and the Danube (32 %) strategies.

- Spatial relations encounter different challenges

As shown in the previous chapters, spatial inequalities are present in terms of economy, employment, education or other thematic aspects.

Challenges for rural-urban relations include the tendency for urban areas to expand (urban sprawl in areas close to cities) and gentrification[166] (in close to city or remote areas with high amenities), that leads to the loss of productive, recreational and biodiversity space and can compromise long-term development prospects or push away rural residents (housing and land), and can trigger conflicts over land-use. In the context of COVID-19, the unplanned move of urban people to rural areas has put pressure on service provision capacity to non-permanent residents.[167]

Other challenges include urban services not being designed to meet needs of rural residents who need to access services in the city (e.g. mobility[168]), unsustainable transport and logistics, lack of connections between producers and consumers. While some of these challenges are being addressed in the context of functional urban areas[169], rural areas that are not included in these functional approaches, remote from the main decision centres and uneasily accessible are unlikely to benefit. Preconceived ideas and images of urban and rural areas, such as for example considering urban areas as engines of growth and rural areas as lagging behind, can be counterproductive.[170]

In addition, challenges arise from the governance of these rural-urban relations. These include a lack of coordination between authorities (in space and across administrative departments e.g. spatial planning), a mismatch between administrative boundaries and the challenge to address, lower power of rural citizens in decision-making bodies, vested or incompatible interests, rigid regulations, high transaction costs, lack of continuity or inconsistencies in policy frameworks or property rights, uncoordinated urban planning and wider

[166] Process of changing the character of a neighbourhood through the influx of more affluent residents and businesses.

[167] de Luca, C., Tondelli, S., & Åberg, H., *The Covid-19 pandemic effects in rural areas*, 2020. Ruiz-Martínez, I., Esparcia, J. *Internet Access in Rural Areas: Brake or Stimulus as Post-Covid-19 Opportunity?* Sustainability 2020 - 12 9619. http://dx.doi.org/10.3390/su12229619; European network for rural development, Rural responses to Covid- 19, https://enrd.ec.europa.eu/rural-responses-covid-19-crisis_en; RURALIZATION, *Webinar on the impact of Covid-19 on Young people in rural and urban eras*, https://ruralization.eu/2020/06/12/ruralization-webinar-impact-of-covid-19-on-young-people-in-rural-and-urban-areas/

[168] SMARTA Website https://ruralsharedmobility.eu/

[169] City and its commuting zone according to Eurostat, *What is a city? – Spatial units.* https://ec.europa.eu/eurostat/web/cities/spatial-units

[170] Wiskerke, H., *Rural-urban relations, enhancing synergies*, presentation at ENRD Rural vision week, 2021. https://enrd.ec.europa.eu/sites/default/files/han-wiskerke-ppt2-ws5.pdf

spatial planning; lack of synergies in economic development and constraints on resources and infrastructures. Moreover, obstacles derive from possible power conflict, the defensive attitude of actors involved, wide disparities in growth, employment and living conditions between areas, lack of data able to represent the urban-rural region, or simply rejection of additional administrative burden.[171]

Rural border regions often have weaker transport connections, both across the border and within the national border regions. On average, rural border regions have lower road and rail performance compared to other rural regions. Furthermore, people living in rural border regions have to drive further to access public services such as healthcare and education. For example, the distance to the nearest primary or secondary school or hospital is greater in rural border regions than in other rural regions.[172] In addition, interaction across the border is limited by legal and administrative border obstacles.[173] Moreover, the COVID crisis added a further layer of obstacles to border regions with the temporary closure of borders.[174]

Joint identified challenges for **rural populations under macro-regional strategies** include access to public services, connectivity, preservation of natural habitats, increasing competitiveness and innovative capacity. Rural regions exhibit notably lower transnational cooperation. This can indicate lower capacities to absorb European Structural and Investment Funds (ESIF) in the rural regions, or a weakly institutionalised cooperation in the rural areas. The rates of participation get higher where longer cooperation formats exist. Building networks comprising local actors from wide territories across administrative and linguistic borders demands investments in time and staff.

- ## Rethinking what's vital to society brings opportunities to revalue rural areas

New approaches to territorial development are on the rise that place a greater emphasis on social and environmental objectives and on the territorial anchorage of economies, including a concern on resilience. The ROBUST project[175] identified five domains where innovative approaches have the potential to enhance **rural-urban synergies**: **social services** (focus on social welfare, services, accessibility); **social and spatial proximity relations** (reduction of physical and social distancing through e.g. short value chains; **circularity** (closing loops); **green economy**

[171] Knickel K., Kobzeva M., *Interactions and dependencies between rural, peri-urban and urban areas and contemporary governance approaches*, ROBUST Synthesis Report Rapid Appraisals, deliverable 2.4, 2018. http://www.rural-urban.eu/publications

[172] REGIO calculations based on https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2019/road-transport-performance-in-europe, https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2020/rail-transport-performance-in-europe and ESPON PROFECY data https://www.espon.eu/inner-peripheries.

[173] COM (2017) 434 Communication Boosting Growth and Cohesion in EU Border Regions.

[174] European Commission, *The effects of COVID-19 induced border closures on cross-border regions*, Publications office of the European Union, 2020. https://op.europa.eu/en/publication-detail/-/publication/46250564-669a-11eb-aeb5-01aa75ed71a1/language-en; - https://op.europa.eu/en/publication-detail/-/publication/bf14de68-6698-11eb-aeb5-01aa75ed71a1/language-en

[175] ROBUST website, www.rural-urban.eu

(rewarding beneficial ways to deliver ecosystem services) and **culture and heritage**. Innovations around procurement, short value chains, smarter ways to reward the provision of ecosystem services, regional branding, for instance, if managed in specific ways, can improve the recognition of the value of rural areas for urban citizens, the understanding of the specific needs of rural populations and the business models and governance arrangements[176]. These opportunities are mostly demonstrated in city-hinterland relations or at regional levels. They are less evident in the case of rural areas that are further away from the urban centres. Innovations that celebrate cultural heritage (food, historical routes, pilgrimage etc.) and seek to create value from it can bring benefits to rural areas in both close to city and remote areas[177]. New trends such as multi-locality living whereby people choose to distribute their lifetime between various places, sometimes far away from each other, also brings rural-urban relations within a much larger scale[178]. Digital as a distance remover and a way of engagement may also be an opportunity to invigorate multi-level governance of these territorial interactions and participatory processes.[179]

The OECD has worked on rural-urban partnerships in the context of networks of small towns.[180] However, the intensity of linkages between cities and remote areas and what they can provide is harder to evidence. Thus, the OECD suggests differentiating policy approaches for rural areas close to cities and for remote areas.[181] Another challenge in the representation and analysis of urban-rural functional linkages is to have access to appropriate data. Especially when the functional area is not corresponding to administrative supra-municipal entities, it is difficult to retrieve comparable and homogeneous data across multiple municipalities, with possible different areas of interest.[182]

Governance arrangements that foster integrated cooperation across borders at the macro-regional or transnational scale are also developing, in the EU context and outside of it. More and more regions are interested in participating in different cooperation formats, thus **opening new possibilities for rural regions to actively contribute**. These new networks are not implemented top-down but derive from and are implemented in strong connection with the regional and local level.

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[176] Wiskerke, H., *Rural-urban relations, enhancing synergies, presentation*, 2021.

[177] Tondelli, S., de Luca, C., Aberg, H. E., *Thinking beyond the COVID-19 crisis: heritage-based opportunities for the regeneration of rural areas*, 2020.; Slee, B., Mosdale, L., *Policy brief- How policy can help bring about social innovation in rural area*s, 2020.

[178] Ovaska, U., et al., *Multilocality: Case Studies from Helsinki, Frankfurt/Rhein-Main, Wales, and the Metropolitan Region of Styria*, 2020.

[179] Brunori G., et al., *Expert's recommendations to boost sustainable digitalisation of agriculture, forestry and rural areas by 2040*, 2021.

[180] OECD, *Rural-urban partnerships*, 2013.

[181] OECD, *Rural Well being*, 2020.

[182] Knickel K., Kobzeva M., *Interactions and dependencies between rural, peri-urban and urban areas and contemporary governance approaches*, ROBUST Synthesis Report Rapid Appraisals, deliverable 2.4, 2018. http://www.rural-urban.eu/publications

Cross-border cooperation offers many opportunities to EU rural areas.[183] The development of cross-border cooperation is likely to improve service provision as well as economic opportunities for rural border areas and people who live and work on both sides of these borders. Cross-border cooperation over time generally leads to more stable partnerships and cooperation tends to become deeper and spill over to new areas. As people interact more across the border they become aware of various obstacles. These can be for instance legal, administrative, infrastructural or cultural. In cross-border areas with intensive interaction obstacles tend to be addressed and opportunities tend to be explored to a greater extent than in cross-border areas with a lower interaction intensity. This includes the provision of cross-border services. The macro-regional strategies offer a comparatively new framework for cooperation activities involving actors from the local and regional level, that is likely to further enhance cross-border cooperation benefits.

- Conclusions

Improving the governance of territorial interactions is one of the ways forward to improve future rural prospects. Governance arrangements that facilitate cooperation and networks between authorities and/or other actors (citizens, NGOs, businesses etc.) are needed to better govern these linkages with adequate scales and formats depending on the issues at stake. These must consider the functional role, importance, challenges, and opportunities of each territory and enhance synergies, economic local or regional spill overs and the feeling of all citizens that they are included and have access to positive prospects. Territorial development also needs to be integrated across policy sectors and across levels of administration.

In recognition of the **importance of rural areas for urban areas**, a growing number of cities are including rural territories in the scope of their "Sustainable urban development strategies". Opportunities arise from the emergence of a functional area approach in the design of urban strategies to **include more municipalities and rural territories in their scope.**[184] This marks a huge step out from traditional urban strategies at the scale of urban municipal boundaries or the neighbourhood, and facilitates pooling resources and establishing inter-municipal cooperation, as exemplified by the JRC in metropolitan areas (e.g. Brno, CZ), medium-size cities (e.g. Goteborg, SE) and small towns and settlements in rural regions (e.g. Plasencia, ES).[185] Although with limited effect for remote areas, this appetite for a more integrated approach between cities and hinterlands **can bring opportunities for rural people,** who are eager to improve their access to urban services, if it translates into efficient and equitable **governance arrangements where urban and rural citizens have an equitable voice** and that lead to equitable benefits: a key condition for sustainable rural-urban partnerships[186]. These arrangements develop with either a

[183] e.g. European Commission, *Pilot project AGROPOL, Development of a European cross border agribusiness model region : final report*, Publications office of the European Union, 2018. https://op.europa.eu/en/publication-detail/-/publication/1f1b9793-81bb-11e9-9f05-01aa75ed71a1

[184] STRAT-Board database - https://urban.jrc.ec.europa.eu/strat-board/#/where

[185] Fioretti, C., et al., *Handbook of Sustainable Urban Development Strategies*, Scientific and Technical Research Reports, Publications Office of the European Union, 2020, http://publications.jrc.ec.europa.eu/repository/handle/JRC118841

[186] OECD, *Rural-urban partnerships*, 2013.

territorial focus (Community-led local development, Integrated Territorial Investments) or a thematic one (food procurement, regional mobility plans –e.g. Flanders- etc.) mainly in the context of proximity relations. However, they can benefit rural areas only if designed in partnership and respecting a number of conditions, such as a balanced representation of rural and urban parties and support for municipalities with smaller teams to take part and voice their needs, for example via bodies acting as facilitators.[187] More in general, in this context, it will be important to pay attention to the specific situation and needs of remote areas by considering - in line with the suggestion by the OECD – to differentiate policy approaches for rural areas close to cities and for remote areas.

[187] Bauchinger, et al., *Developing Sustainable and Flexible Rural–Urban Connectivity through Complementary Mobility Services,* 2021.

ROBUST, *Webinar on public procurement for a sustainable food supply*, May 2020. http://www.rural-urban.eu/publications/webinar-public-procurement-sustainable-food-supply

3.12. WOMEN IN RURAL AREAS

This section looks at the situation of women in rural areas highlighting the challenges and opportunities across different thematic aspects.

In rural areas women face several disadvantages.

The employment rate of rural women was lower than the employment rate of urban women in 2019[188] in the majority of EU Member States. The countries recording the highest employment rate gap between rural and urban women, included Bulgaria (15.6 percentage points pp), Croatia (13.5 pp), Romania (12.2 pp), Poland (10.5 pp) and Lithuania (10.1 pp).

The employment rate of rural women in 2019 was lower than the employment rate of rural men in most Member States with the highest employment rate gap between rural women and men attained in Italy (21 pp), Romania (20.9 pp), Bulgaria (19.9pp), Malta (18.5 pp) and Greece (17.8 pp). In 2019, 29.2% of all employed women in rural areas worked part-time compared to 6.7% of employed men in rural areas[189].

In the majority of EU Member States, the activity rate of **rural women tends to be lower than the activity rate for rural men.** The average activity rate gap between rural women and men amounted in 2019 to 12.5 pp for EU-27. The EU countries with the widest gender activity rate gap between rural women and men in 2019 included Malta (24.6 pp), Romania (23.4 pp), Italy (21 pp), Greece (19 pp) and Poland (17.8 pp). [190]

There are different drivers of rural gender inequality. Women living in rural areas are typically engaged in **informal employment**, taking role of carers in their families and in their rural communities (17.8% of women in rural areas provided informal care or assistance compared to 12.9% of men in rural areas[191]). Many of them are involved in agricultural work, but **do not receive a separate income from their husband** or other male members of the household. By assisting their employed spouses, they are **not entitled to social security** in their own right and **often do not hold property rights** to land or farms.[192]

[188] Eurostat, *Employment rates by sex, age and Degree of Urbanisation*. https://ec.europa.eu/eurostat/databrowser/product/page/LFST_R_ERGAU__custom_443889

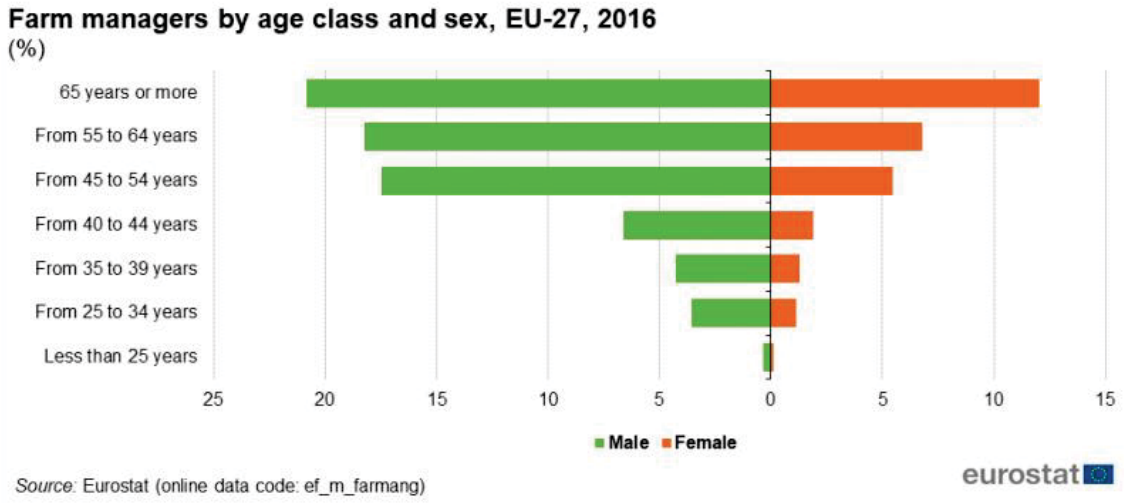
[189] EP, *The professional status of rural women in the EU*, EP study, 2019. https://www.europarl.europa.eu/RegData/etudes/STUD/2019/608868/IPOL_STU(2019)608868_EN.pdf

[190] Data from Eurostat for 2019 for persons aged 15-64 years (LFST_R_PGAUWSN)

[191] Data from Eurostat for 2014 for persons above 15 years (HLTH_EHIS_IC1U)

[192] EP, The professional status of rural women in the EU, 2019.

Figure 57 Farm managers by age class and sex, 2016



Source: Eurostat (online data code: ef_m_farmang)

Furthermore, the unequal impact of parenthood and caring responsibilities on women remains one of the main drivers of their lower employment rates, with inflexible work-life-balance options and **underdeveloped care and social services,** particularly in rural areas, presenting major barriers to female employment. The unequal sharing of the care burden leads to a higher incidence of career disruptions among women, resulting in greater risks of poverty and financial dependency.[193]

In 2019, **the mean and median income level** was higher for rural men than for rural women in all Member States. The countries with the widest mean and median income gender gap between rural women and rural men included Belgium, Denmark, Austria, Sweden and Italy.[194] Lower income levels translate into lower pension entitlements for women. Women's pensions in the EU are on average 28% lower than men's.[195]

The various challenges faced by rural women referred to above very often lead to **women migrating out of rural territory** seeking better educational and professional opportunities in cities and urban areas. It has become evident that young and well-educated women are becoming the most likely to leave peripheral regions.[196] This trend negatively impacts the attractiveness of rural regions.

- Opportunities for women in rural areas

As the EU's working age population has been shrinking for a decade and this is projected to continue,[197]**it is becoming inevitable to attract and retain women in work longer** and improve

[193] EP, *The professional status of rural women in the EU*, 2019.

[194] Data from Eurostat for 2019 for persons above 18 years (ILC_DI17)

[195] Eurostat online table ilc_pnp13; No data available on specific situation of rural women.

[196] EP, *The professional status of rural women in the EU*, 2019.

[197] Eurostat online tables demo_pjan and proj_19np

attractiveness of working places and productivity. There are a number **of opportunities for rural women** to increase labour market participation, to formalise their employment status, enhance their social security rights, improve their quality of life and prevent their out migration from rural regions.

The shift to distance working and learning stimulated by the COVID-19 outbreak has shown that digital technology can be very powerful. It has manifested that it is possible to link teachers/trainers and learners from different geographical locations and thus open up opportunities for providing better and higher quality education in rural and remote areas. This is conditional upon the access to broadband and technologies. **Digital technologies have potential to increase the participation of rural women in education and training.**

In general, the share of older people in the EU-27 living in predominantly rural regions and intermediate regions is higher than in predominantly urban regions.[198] Older people living in rural areas are more prone to the insufficient provision of social and health services.[199] The growing number of older people in rural areas coupled with the absence of the provision of services, brings **new opportunities in the 'silver' and care economies** creating new jobs in rural areas. **At the same time, better availability of formal long-term care and support for informal carers** can enable more women to enter and remain in the labour market and find opportunities in rural areas.

Social enterprises and non-profit organisations have the potential to deliver health and social care services, including for older people, while they could also create excellent employment opportunities for women benefiting from their local roots and their knowledge of the specific community needs.

Climate change adaptation and mitigation and the need to preserve natural resources can provide opportunities for women to become active in nature-based solutions and the bio-economy. Here a number of job opportunities may arise in the sphere of organic farming, or innovative start-ups in the circular economy. Targeted tailor made programmes to encourage rural women entrepreneurs and women in decision making, including politics, should be supported.

In general, the provision of incentives and enabling conditions to enhance women engagement in entrepreneurial activities in rural regions could contribute to closing employment, social exclusion and poverty gaps between rural men and women.

[198] "In 2019, there were 90.4 million older people (aged 65 years or more) living in the EU-27. Of these, 39.7 % were living in intermediate regions and 38.2 % in predominantly urban regions, leaving 22.1 % in predominantly rural regions." (p.28) in Eurostat, *Ageing Europe- Looking at the lives of older people in the EU*, 2020. https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-02-20-655

[199] EASPD, *Provision of social care and support services in remote rural areas: Challenges and opportunities*, 2018. https://www.easpd.eu/sites/default/files/sites/default/files/social_services_in_rural_remote_areas_-_easpd_report_march_2018.pdf

- Conclusions

Gender equality is a core value of the EU, **a fundamental right**[200] and a **key principle of the European Pillar of Social Rights.**[201] Equality is also an essential condition for an innovative, competitive and inclusive European economy as it brings more jobs and higher productivity.[202]

This implies promoting equal opportunities to thrive for rural women on equal footing with rural men by closing the gender gaps that still persist in the rural areas.

For rural women this will mean to find adequate responses to the challenges and take advantage of the opportunities driven by the current transition processes including climate change and demographic transformation. The automation and digitalisation have the potential to speed-up the development of rural areas for the benefit of the whole rural population. This will require up- and reskilling of rural population, in particular women, to acquire the necessary skills to meet the digitalisation demands in the relevant sectors of rural economies. Technology, for example, can facilitate the access to telemedicine, distance learning or other services and thus bridge the gap in the provision of services and create employment opportunities in rural and remote areas.[203]

[200] See Articles 2 and 3(3) TEU, Articles 8, 10, 19 and 157 TFEU and Articles 21 and 23 of the *EU Charter of Fundamental Rights.*

[201] The European Pillar of Social Rights expresses principles, the rights already present in the Union acquis. See Interinstitutional Proclamation (2017/C 428/09) *European Pillar of Social Rights*. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017C1213%2801%29

[202] "By 2050, improving gender equality would lead to an increase in the EU's GDP per capita by 6.1% to 9.6%, which amounts to €1.95 to €3.15 trillion" in EIGE, *Economic case for gender equality in the EU*. https://eige.europa.eu/gender-mainstreaming/policy-areas/economic-and-financial-affairs/economic-benefits-gender-equality

[203] OECD, *Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change*, OECD Rural Studies, OECD Publishing, Paris, 2021. https://doi.org/10.1787/83025c02-en

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COMMISSION STAFF WORKING DOCUMENT
Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

A long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040

{COM(2021) 345 final} - {SWD(2021) 167 final}

4. EU INITIATIVES, POLICIES AND FUNDING IN RURAL AREAS

4.1. EU POLICIES AND INITIATIVES FOR RURAL AREAS

Several EU policies and funds provide support to address rural challenges and opportunities and contribute to a fair, green and innovative development of rural areas. These policies need to be mobilised coherently to support their development. The **European Structural and Investment Funds**, notably the European Agricultural Fund for Rural Development (EAFRD), the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF) play a particularly important role in supporting the development of rural areas. The EU's **different sectorial policies** also contribute to tackling the numerous challenges faced by rural areas. This section presents an overview of the actions and the foreseen outcomes of each policy in rural areas.

4.1.1. The Common Agricultural Policy (CAP)

The **Common Agricultural Policy (CAP)** plays a crucial role to ensure food security, the sustainable use of natural resources and the balanced development of Europe's rural areas. It aims to:

- support farmers and improve agricultural productivity, ensuring a stable supply of affordable food;
- safeguard European Union farmers to make a reasonable living;
- help tackle climate change and the sustainable management of natural resources;
- maintain rural areas and landscapes across the EU;
- keep the rural economy alive by promoting jobs in farming, agri-foods industries and associated sectors.

The main funding tools of the CAP are **income support through direct payments** and **market measures funded by the European Agricultural Guarantee Fund** (EAGF, the so-called first pillar) and **rural development measures funded by the European Agricultural Fund for Rural Development** (EAFRD, the so-called second pillar).

The farming and food sectors together provide nearly 40 million jobs in the EU, and are crucial for the rural economy. The CAP plays a positive role in reducing poverty and the creation of better jobs for farmers[1].

Under the 2014-2020 EU multi-annual financial framework (MFF), the CAP had an allocation of EUR 408.3 billion (for EU-28 and after transfers between pillars), accounting for 35.4% of the EU budget. The first pillar of the CAP (EAGF) was EUR 308.0 billion and the second pillar (EAFRD) EUR 100.3 billion. The new 2021-2027 MFF for the EU-27, allocates EUR 291.1

[1] World Bank, *Thinking CAP - Supporting Agricultural Jobs and Incomes in the EU*, World Bank report on the European Union, 2017. https://pubdocs.worldbank.org/en/369851513586667729/Thinking-CAP-World-Bank-Report-on-the-EU.pdf

billion to the first pillar (EAGF), while the part for rural development (EAFRD), including the Next Generation EU funding to help rural areas (EUR 8 billion), amounts to EUR 95.5 billion.

The largest share of farm income is generated by the selling of products on the agri-food markets. Since the CAP reform of the early 1990s, the CAP has become increasingly market orientated, which has strengthened the competitiveness of the EU's farming sector. Farmers and other actors of the value chain (from "farm to fork"[2]) benefit from a very efficient EU food supply chain that demonstrated its resilience during the COVID-19 crisis, ensuring there was no significant disruption of food supply. The CAP offers, via the **Common Organisation of the Markets (CMO)** the necessary legal framework[3] to ensure the functioning of the food chain for both farmers and primary processors of agricultural products. This framework includes marketing standards, rules on producer organisations and inter-branch organisation, adequate derogations to competition rules, market transparency provisions and safety net instruments in case of market disturbance. A recently adopted directive regulating unfair trading practices[4] completes the picture and strengthens the position of farmers and other small and medium-sized enterprises in the food supply chain. The increased market orientation has allowed and will continue to allow EU farmers as well as other actors of the food supply chain present in rural areas, i.e. the high number of small SMEs involved in food processing, to take advantage of opportunities offered by global, European and local markets, thus contributing significantly to the economic vitality of rural areas.

In European rural areas, many jobs are linked to farming and the management of natural resources. Farmers need machinery, buildings, fuel, fertilisers and healthcare for their animals, also known as 'upstream' sectors. Other operators deal with 'downstream' operations – such as preparing, processing, and packaging, as well as in storage, transport and retailing of food, as well as fibre, fuel and feed. To operate efficiently and remain modern and productive, farmers, upstream and downstream sectors need access to the latest information on agricultural issues, farming methods and market developments.

Direct payments[5], financed by the EAGF, ensure income support and stability and contribute to remunerating farmers for environmentally friendly farming and delivering public goods not normally paid for by the markets. On average direct payments account for 26% of farm income in the EU[6]. Direct payments have a strong and significant effect on the economic development in the agricultural sector primarily through support and stabilisation of farmer income, which is still lagging behind compared to income in the rest of the economy on average.

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[2] COM (2020) 381 Communication A Farm to Fork Strategy.

[3] Regulation 1308/2013 of the European Parliament and of the Council establishing a common organisation of the markets in agricultural products

[4] Directive (EU) 2019/633 on unfair trading practices in business-to-business relationships in the agricultural and food supply chain

[5] See: CAP explained – direct payments for farmers 2015-2020. https://op.europa.eu/en/publication-detail/-/publication/541f0184-759e-11e7-b2f2-01aa75ed71a1/info/publications/brochure-cap-explained-direct-payments-farmers-2015-20_env

[6] European Commission, *Evaluation of the impact of the CAP measures on the general objective 'viable food production'*, Commission staff working document SWD(2021)105, 2021. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cmef/products-and-markets/impact-cap-measures-towards-general-objective-viable-food-production_en

This has positive effects on social development and supports the attractiveness and viability of rural areas for its inhabitants and can have a positive effect on the quality of life. These effects are felt both within and outside of the agricultural sector. The reduction in abandonment of rural areas and the support for generational renewal are important factors for social development. While being cost-effective, farmers should work in a sustainable and environmentally friendly manner, and maintain soil and water quality as well as biodiversity. Business uncertainty and the environmental impact of farming justify the significant role that the public sector plays to support farmers.

With the EAFRD, support for rural development was introduced as the second pillar of the CAP under what was known as the 'Agenda 2000'[7]. In the 2014-2020 programming period, as well as in the transition period (2021-2022), it serves the three general objectives of improving the competitiveness of agriculture, achieving sustainable management of natural resources and climate action, and a balanced territorial development of rural areas, including generational renewal in farming and rural areas. The EU's rural development pillar contributes to these objectives through a comprehensive set of measures to support the sustainable development of rural areas throughout the EU. All of these measures contribute to the diversification of the economy and improving quality of life. Member States implement the second pillar of the CAP through national or regional rural development programmes (RDPs) tailored to fit the unique challenges and needs of the territory they cover.

The EAFRD pays particular attention to the environment and climate. It supports the uptake of environmental and climate friendly management practices, including organic farming, modernisation of agricultural holdings, risk prevention, and the development quality products. It also supports the afforestation of agricultural land for the purpose of carbon sequestration, among other climate-friendly measures and environmentally friendly forestry practices. In addition to the income support provided by the EAGF, the EAFRD supports farmers in mountainous areas or areas facing natural or specific constraints, by compensating for the additional costs and income foregone linked to farming in those areas. Another important aspect is the need for support to facilitate generational renewal in agriculture. This takes place through start-up grants to young farmers who are setting up a holding for the first time, as well as support for investments. CAP generational renewal measures improve the performance of farm businesses, their resilience, and the secure transfer of farms from the older to the younger generation. However, the CAP on its own is not sufficient to address the main entry barriers into farming, such as access to land and access to capital[8].

The EAFRD goes beyond agriculture, environment and climate actions and also supports rural communities. Rural Development contributes to the CAP's objectives and is coherent with the general objectives for the Cohesion Policy as laid down in Art. 174 of the Treaty on the Functioning of the European Union (TFEU), which provides that "particular attention shall be paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions". In synergy with the other

[7] COM(97) 2000 European Commission, Agenda 2000 : For a stronger and wider Union.

[8] European Commission, *Evaluation of the impact of the CAP on generational renewal, local development and jobs in rural areas*, Commission staff working document SWD(2021)78, 2021. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cmef/rural-areas/impact-common-agricultural-policy-generational-renewal-local-development-and-jobs-rural-areas_en

ESIF, the EAFRD may support social inclusion, poverty reduction and economic development in rural areas, including initiatives that promote gender equality. This includes investments in basic services in villages and in broadband, initiatives creating local jobs, diversifying farm activities and/or added value to products. Part of these funds are dedicated to community-led local development via the **LEADER** method, where Local Action Groups (LAGs) decide on local development projects.

The EAFRD also finances a well-established **EU rural networking system**, at both EU and national level, to support policy implementation. Its scope and reach has continuously been expanded over successive programming periods. By promoting interaction and exchange between rural stakeholders and managing authorities of programmes across the EU, the networks help to share knowledge and good practices, build capacity, and drive innovation and co-operation both in the primary sector and for the wider development of rural areas. The European Network for Rural Development (ENRD) has, for example, played a key role in supporting implementation of local development strategies by more than 3 000 LEADER Local Action Groups as well as in facilitating the implementation of multi-funded Community-Led Local Development .

Promoting **knowledge and innovation in agriculture, forestry and rural areas** is a key priority area for rural development. Its policy importance has gradually increased, resulting in the proposed new cross-cutting modernisation objective for 2021-2027 CAP support. Launched in 2021, the European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) encourages farmers and foresters to work together with rural businesses, researchers, advisers, and others to co-create and test innovative solutions ready to be put in practice. The EIP interactive innovation model embraced by more than 2000 operational groups so far, is a new way to deliver innovative solutions that help farmers and rural businesses become more competitive and sustainable, with positive repercussions in terms of jobs, climatic, environmental and social conditions and the well-being of rural communities. The EIP-AGRI also serves as bridge for the farming and rural communities to benefit from the EU's research and innovation policy, connecting EIP grassroots innovative projects to transnational research and innovation projects funded under Horizon 2020 and Horizon Europe.

Financial support provided to **Producer Organisations** (POs) through the EAFRD and through the EAGF in sectors like fruit and vegetables or olive oil also contributes to enhance job opportunities and – consequently - to the development of rural areas. POs can strengthen the social fabric in rural areas by offering their members a sense of belonging and by increasing the level of social capital and trust within the communities where they are based. POs can also help promote their regions and local areas on a national or international stage, in particular by showcasing the quality and variety of local and traditional food products. POs can also play a role in satisfying the increasing demand for local products as their products are inherently linked to the specific rural areas where they and their members are based.

Additionally, rural areas also benefit from CAP support in other ways. Synergies between tourism and valorisation of products with **geographical indications** including on farm marketing and processing can be observed and contribute to the development of rural areas. Geographical Indications[9] protect names and guarantee the authenticity of products to consumers. Products

[9] A geographical indication (GI) is an indication (usually a name) used on products that have a specific geographical origin and possess a given quality, reputation or other characteristic that is attributable to that origin. Traditional speciality guaranteed (TSG) highlights the traditional aspects such as traditional production method or traditional composition, without being linked to a specific geographical area.

with specific characteristics can be of considerable benefit to the rural economy, in particular to areas with specific environmental features like mountainous areas, by promoting a regional or local identity, improving the incomes of farmers and by retaining the rural population in these areas. The sales value of GI certified products is shown to exceed the sales value of similar products without a certification[10]. GI products are intrinsically linked to the natural factors and/or know-how of producers in local areas. They also contribute to preserve cultural heritage, in particular gastronomic, linked to the local identity and territory. The current GI system is reviewed in order to strengthen it with a view to increasing the uptake of GIs across the EU, to include specific sustainability criteria – where appropriate, and to better valorise traditional products and production methods, by promoting a regional/ local identity, improving the incomes of farmers and by retaining rural population in these areas.

- The Common Agricultural Policy post 2020

The Commission proposal for the future CAP aims at modernising the policy to meet the current challenges and policy objectives, and at simplifying it by reducing the administrative burden. The CAP will continue to support the transition towards a fully sustainable agricultural sector and the development of vibrant rural areas, providing secure, safe and high-quality food to over 450 million consumers. Europe needs a smart, resilient, sustainable and competitive agricultural sector. This allows for the production of safe, high-quality, affordable, nutritious and diverse food for its citizens and a strong socio-economic fabric in rural areas. The modernised CAP should further enhance its European added value by reflecting a higher level of environmental and climate ambition and addressing citizens' expectations for their health, the environment and the climate, in line with the "The European Green Deal", and notably the Farm-to-Fork strategy and the Biodiversity strategy (see sections 4.1.6 and 4.1.7).

The reform introduces CAP Strategic Plans as a national planning instrument to enhance the strategic approach of the policy, covering direct payments and sectoral interventions funded by the EAGF as well as rural development interventions funded by the EAFRD. The European Commission proposes that the CAP be built around nine key objectives (and an additional cross-cutting objective on knowledge, innovation and digitalisation in agriculture and rural areas). Focused on social, environmental and economic goals, these common objectives will be the basis upon which EU Member States design their CAP strategic plans.

The policy increases the focus on results through a "new delivery model", which will shift the administrative focus from compliance to performance, and rebalances responsibilities between the EU and the Member States with more subsidiarity. The new model aims at better achieving EU objectives based on strategic planning, broad policy interventions and common performance indicators, thus improving policy coherence across the CAP and with other EU objectives. In its assessment and approval of the CAP Strategic Plans, the Commission will ensure that the level of ambition makes a sufficient contribution to meeting EU policy objectives, including in relation to relevant Green Deal targets.

[10] AND international and Ecorys, *Study on economic value of EU quality schemes, geographical indications (GI) and traditional specialities guaranteed (TSG)*, Brussels, 2021. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cmef/products-and-markets/economic-value-eu-quality-schemes-geographical-indications-gis-and-traditional-specialities-guaranteed-tsgs_en

The CAP Strategic Plans are expected to be in place as of 2023. In order to ensure a smooth transition, the policy framework for 2014-2020 has been extended to cover the years 2021 and 2022, funded by the MFF 2021-2027.

The future Common Agricultural Policy (CAP) contributes to managing the transition to sustainable food systems and strengthen the efforts of European farmers to contribute to the EU's climate objectives and to protect the environment. The proposed common objectives and rules, and in particular the common system for measuring results, will allow monitoring and ensuring that all Member States play their part in delivering on our sustainability commitments.

A key element of the proposal concerns the links to EU legislation on the environment and climate. Every Member State will have to explain in the CAP Strategic Plan how it plans to use the agricultural and forestry policy instruments to help meet the ambitious European targets arising from EU legislation on climate change, energy, water, air quality, biodiversity and pesticides. In the case of climate change, all Member States have to cut their greenhouse gas emissions under the terms of the National Energy and Climate Plans. Each Member State's CAP plan will have to show what contribution the CAP will make to achieve that target.

To guarantee that the future CAP Strategic Plans fully support the transition foreseen in the European Green Deal, a structured dialogue between the Commission and the Member States is taking place. In this context, **the Commission made recommendations to the Member-States,** based on its analysis of the individual situation of each of them in terms of agriculture and rural development, assessed through the prism of the nine CAP specific objectives and the cross-cutting objective.

Through these recommendations the Commission asked Member States to set national values (impact indicators) for selected Green Deal targets, showing how they plan to contribute to the EU's climate and indicating a clear direction of the efforts to be made at national level. The Member States will then design, in their CAP Strategic plans, appropriate interventions and assess their expected use by farmers. When approving and amending the strategic plans, the European Commission will assess their coherence with the Green Deal targets. Progress towards these Green Deal targets, at Member State level, will be monitored through the future CAP's performance and evaluation framework.

In terms of environmental and climate objectives (climate change, natural resources, and biodiversity and landscapes)**,** Member States will have the legal obligation to clearly show greater ambition through their CAP Strategic Plans (compared with their current implementation of the CAP) with regard to the three environment- and climate-related objectives of the future CAP. This principle, which must be translated into a clearly explained combination of elements in each CAP plan, will avoid any "backsliding" in the contribution of the CAP to care for climate. **The requirement for 'ring-fencing' a certain share of the budget for the environment and climate is strengthened.**

The objective- and planning-based approach - covering both CAP pillars – and the flexibility in the design and combination of interventions will allow Member States to pursue the CAP's environmental and climate objectives with a more coherent, effective and targeted response. It will specifically allow for more efficient CAP spending related to climate and the environment.

Other objectives refer to farm income and farmer´s position in value chain, greater focus on research technology and digitalisation, generational renewal, employment, growth, social inclusion and local development in rural areas. Societal demands on food and health are also

addressed. They are all key challenges and opportunities for rural areas and are highlighted in the long term vision**.**

The **Farm to Fork Strategy**[11], a cornerstone of the Green Deal, is the EU's strategy to support a robust and resilient food system, capable of ensuring access to a sufficient supply of affordable food for citizens. It addresses the challenges of sustainable food systems and recognises the inextricable links between healthy people, healthy societies and a healthy planet. The strategy is also central to the Commission's agenda to achieve the United Nations' Sustainable Development Goals (SDGs). It aims to accelerate the transition to sustainable food systems that will have a neutral or positive environmental impact, help to mitigate climate change, reverse the loss of biodiversity, ensure food security, wholesome nutrition and public health. All people should be able to access safe, nutritious, sustainable food and the affordability of food should be maintained, while generating fairer economic returns, fostering competitiveness of the EU supply chain and promoting fair trade.

Even though the EU's transition to a sustainable food system has started in many areas, the agri-food chain continues to make a significant contribution to climate change and environmental degradation. The Farm to Fork Strategy intends to counteract this by reducing dependency on chemical pesticides and fertilisers, reducing any use of antimicrobials that is neither prudent nor responsible in farming and aquaculture, increasing organic farming, improving animal health and welfare, reducing food loss and food waste, promoting a healthier and more environmentally sustainable diet and securing plant resources for sustainable agriculture and forests while strengthening the protection of plants from emerging pests and diseases.

4.1.2. Cohesion Policy and Regional policy

Cohesion Policy is the EU's main policy to promote and support the overall harmonious development of its Member States and regions. The European Single Act in 1987 created and set up Cohesion with the objective to support growth, employment and European territorial cooperation, concentrating on less developed regions to help them catching up. It underpins the European solidarity, aiming at reducing development inequalities between regions within the EU. The economic, social and territorial cohesion among Member States is an essential objective of the European Union, which aims at reducing disparities in income, wealth and opportunities between regions (TFEU, Article 174). Cohesion Policy addresses very diverse development needs through its three funds- the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF). For its part, and with its two main funds (ERDF and CF), the EU Regional policy is today the EU's main investment policy. It delivers a critical mass of investments supporting job creation, competitiveness, economic growth, improved quality of life and overall sustainable development while reducing the development gap of the least favoured regions, including the most remote ones (i.e. outermost regions[12]).

[11] COM (2020) 381 Communication A Farm to Fork Strategy.

[12] The EU outermost regions (French Guiana, Guadeloupe, Martinique, Mayotte, Reunion Island and Saint-Martin (France), Azores and Madeira (Portugal), and the Canary Islands (Spain)) are geographically very distant from the European continent and home to 4.8 million citizens. In accordance with Article 349 TFEU, specific measures and derogations in EU legislation help these regions address the major challenges they face due to their remoteness, insularity, small size, difficult topography and climate, and economic dependence on a reduced number of products.

The recent reforms of Cohesion Policy put it at the centre of EU economic governance and EU economic policy coordination, pursuing sustained and sustainable economic development. These reforms include inter alia targeting resources at key growth sectors (thematic concentration), prompting performance orientation reinforcing the effectiveness of policy measures and investments measures, verifying the existence of a wider framework to ensure the efficiency of the investments before channelling funds (enabling conditions) and strengthening links to the wider EU economic governance. Moreover, Cohesion Policy provides incentives for a more effective multi-level governance based on partnership and integrated place based approach in its programmes. Responsibility for proposing and delivering Cohesion Policy programmes is in the hands of national and regional authorities. Shared management ensures that public investment decisions are taken as close as possible to the citizens and that EU actions are justified in the light of possibilities at national, regional and territorial levels. In the 2014-2020 period, Cohesion Policy is ensuring the investment of more than EUR 470 billion (EUR 344 billion from the EU budget) in Member States, connecting local development potentials with European objectives.

As a result, Cohesion Policy now underpins smart, sustainable and inclusive growth in all regions and territories, and massively supports rural areas. **For the 2014-2020 programming period, investments in rural areas linked to Cohesion Policy stand at EUR 53.9 billion in total[13]. For their part, ERDF and CF alone invest a total of EUR 46.2 euros in rural areas[14]. This represents 24.7% of all ERDF/CF investments which location national authorities reported on**. More ERDF/CF investments benefit rural areas, out of the 58% of Cohesion Policy expenditure which location is not specified. Altogether, the three Cohesion Policy funds support investments in basic services and infrastructure in rural areas, including broadband. The ERDF pays particular attention to rural areas and to regions suffering from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density, remote regions in particular outermost regions and island, cross border and mountain regions.

Actually more than 69% of the planned Cohesion Policy funds targeting rural regions come from the ERDF, followed by the ESF (18%) and the CF (13%), bearing in mind that the relative contribution to rural areas of the various funds is directly linked to the types of investments eligible under these funds.. In the current Programming Period 2014-2020, the "Multiple Thematic Objective" category is the most commonly used when reporting the nature of investments planned in rural areas (23%), while 76% are linked to individual Thematic Objectives (TOs). Among them, the largest amounts went to Environment Protection and Resource Efficiency – EUR 6 billion (EUR 4.6 billion from the EU budget) and Network Infrastructures in Transport and Energy - EUR 5.5 billion (EUR 4.4 billion from the EU budget). Finally, Cohesion Policy aid intensity, which corresponds to funding per person and per year, appears to be systematically higher in rural regions. Analysis based on expenditure of the 2007-2013 ERDF and CF programmes suggest that aid intensity in rural regions funding per person and per year) is the highest, with EUR 549 per inhabitants, against EUR 282 in urban regions and EUR 482 in intermediate regions. This being said, the quality of territorial spending is equally important, considering the governance conditions attached to Cohesion Policy.

[13] Selected projects end of 2020 total amount (EU budget and national co-financing)

[14] Selected projects ,end of 2020, total amount (EU budget and national co-financing)

At ground level, the Cohesion Policy contributes to rural development with targeted support to territorial and local development strategies. In the 2014-2020 Programming Period, Cohesion Policy funds support more than 700 territorial and local development strategies[15] outside urban areas, and many urban strategies support rural areas close to urban centres.

With its budget of EUR 373 billion[16], the next generation of Cohesion Policy (the 2021-2027 Programming Period) will focus on green and digital transitions, more connected, inclusive and social Europe, and a Europe that is closer to its citizens. It aims at triggering ambitious territorial and local development to leave no place and no people behind while supporting structural transformative transitions on the ground through inter alia: reinforced innovation based on smart specialisation, climate change adaptation, environment protection, low carbon economy, digitalisation, improved competiveness of SMEs, education and employment, and social inclusion. Member States will be required to analyse territorial disparities, needs and challenges for their operational programmes, and also to outline place based and tailor made integrated strategies for addressing demographic challenges and development needs of regions and areas, including rural ones, in their Partnership Agreements. In this respect, new ERDF provisions also foresee the possibility of voluntary Member States commitments to support disadvantaged areas including rural areas.

To meet its ambitious territorial objectives, the post-2020 Cohesion Policy introduces a new crosscutting policy objective for integrated and sustainable territorial and local development: "Policy Objective 5 – Europe closer to citizens". Together with the territorial instruments available under any Policy Objective (integrated territorial investment – ITI, community-led local development – CLLD, and other nationally designed territorial tools), the Cohesion Policy provides a flexible and adaptable framework for Member States and regions to support all territories, including rural areas and address the challenges they are confronted to**.** Thus offering place-based solutions directly at the level where citizens live, work and spend. **The** 2021-2027 Cohesion Policy will support integrated territorial and local development strategies, following the basic principles and concepts of integrated and sustainable territorial and local development, such as integrated approach, place-based approach, multi-level governance, partnership and participation of stakeholders in the design of territorial strategies as well as in project selection. Minimum requirements in that regards are set out in the Common Provisions Regulation that need to be fulfilled for both Policy Objective 5 and territorial instruments under all policy objectives. The territorial instruments will be also available to other funds, including the EAFRD, which helps ensure coherence and coordination among the different funding sources. Applying common rules with the lead fund approach can further facilitate coordinated support to CLLD Local Action Groups.

Most of the cross border areas of the EU are rural and peripheral in their country's organisation. Rural border regions benefit from European Territorial Cooperation (Interreg), including cross border cooperation. Through cross border cooperation, rural border regions may address challenges such as weak connectivity, environmental pollution and poor access to quality healthcare and other public services. They can also strengthen the local economy and develop cross border labour markets by alleviating legal and administrative border

[15] https://urban.jrc.ec.europa.eu/strat-board/#/where

[16] Current prices

obstacles. In addition, public authorities in border regions can benefit from small pilot projects seeking solutions to legal and administrative border obstacles. These small projects are called B-solutions (border solutions) and are directly financed by the Commission outside of Interreg programmes.[17]

When supporting sustainable urban development, the ERDF shall also give special attention to supporting functional urban areas and strengthening urban rural linkages, thus considering a city together with the surrounding towns, suburbs and rural areas, which are part of its commuting zone. Together these operate as a single system in economic and social terms, thus planning investments in an optimal way benefiting to a wider territory.

Altogether, Cohesion Policy enables to make the most of EU assets for the EU rural areas, notably those which do not have the means to get out developments traps by themselves, be them the poorest of all, the most remote ones, or depending quasi exclusively on the primary sector or suffering from a serious risk of desertification*:* adapting or reorganising public infrastructure and services; strengthening smart specialisation strategies beyond agriculture and agro food sectors; stimulating new economic activities; stimulating innovation, entrepreneurship and industry such as manufacturing and extractive activities in the areas identified in these strategies; closing the digital gap between rural and urban areas; harnessing opportunities in the circular and sustainable bio-economy; enhancing urban/rural linkages to support rural areas.

4.1.3. Maritime and Fisheries policy

The **European Maritime and Fisheries Fund (EMFF)** supports coastal communities in diversifying their economies and finances projects that create new jobs and improve the environment, biodiversity and quality of life along European coasts. The maritime and fisheries policies and their financing mechanisms do not distinguish between rural and no rural coastal areas, neither do official statistics. The **EMFF for 2014-2020 was EUR 7.86 billion**, however there is not disaggregated data available by kind of territory.

Whilst fishing ports can be in rural or urban areas, **aquaculture is predominantly a rural activity**. As part of the implementation of the **new Strategic Guidelines for a more sustainable and competitive EU aquaculture** for the period 2021-2023[18], the EMFF will support the integration of the aquaculture sector in local communities. In particular the development of a circular economy approach, diversification of aquaculture activities in terms of species and production methods with low environmental impact, as well as aquaculture contributing to ecosystems preservation and regeneration. This can be done, for example, by using algae or waste from fisheries and aquaculture as input for agriculture (e.g. ingredients for animal feed, fertilizers), or by developing aquaponics systems, the simultaneous farming of fish and plants.

The EU algae sector has considerable potential for development as long as the economic, social and environmental sustainability challenges are addressed[19]. In this context, an **EU Algae**

[17] European Union, *B solutions*. https://www.b-solutionsproject.com/

[18] COM(2021)236 Communication Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030.

[19] Araújo R, Vázquez Calderón F, Sánchez López J, Azevedo IC, Bruhn A, Fluch S, Garcia Tasende M, Ghaderiardakani F, Ilmjärv T, Laurans M, Mac Monagail M, Mangini S, Peteiro C, Rebours C, Stefansson

initiative and action plan (to be adopted in 2022) will aim to unlock the sectors potential in Europe. The action plan will consider targeted support options for algae industry with the aim to foster algae role as an alternative protein source for human food and animal/fish feed, a biofertilizer for agriculture and as bioremediant in wastewater treatment plants and in natural environment.
An element key to further for costal rural areas are **the synergies with ERDF and other structural funds**. The opportunity can be seized by considering the experience of local action groups (e.g. FLAGs) supported by EARDF and EMFF during the 2014-2020 period and build on them to achieve better links between seaside and hinterland of coastal rural areas.

The EMFF can support partnerships between the different sectors involved in coastal rural areas to develop a comprehensive approach to make the area more attractive. In certain areas, this would aim at integrating fisheries and aquaculture activities with other activities such as tourism, or offshore renewable energy, marine protected areas, or coastal ecosystem restoration. The Commission will encourage tourism stakeholders to agree in 2021 on a **Charter of good practices for sustainable cruise tourism** aiming, inter alia, at a sustainable green evolution of cruise tourism in the EU which also benefits local coastal and rural communities.

Any development of seafood production should be environmentally sustainable, agriculture production as well as any economic activity impacting water quality in coastal areas should reduce emissions of pollutants into the water system to reach the objectives set by the **Zero Pollution Action Plan**[20]. In addition, achieving the level of protection of marine areas as foreseen by the **Biodiversity Strategy**[21] entails better interactions between economic actors such as the food production sector (at sea or on land) who have to lead on pollution reduction efforts and authorities and actors concerned by protection of biodiversity.

In most coastal rural areas, **generational renewal in the seafood sectors and/or skills adaptation** is a major issue. The organisation of training on fisheries, aquaculture and agricultural entrepreneurship to change the image of the sectors, attracting more young people and prevent them leaving the area **can specifically be supported by the EMFF**. For the long-term attractiveness of these areas, it is essential that transformations are anchored into **horizontal recruitment strategies** combining traditional professions (eg. agriculture/fisheries/aquaculture) and showcasing "the new way of working" and living based on modern technologies and exceptional work and natural environment. Such training should focus on ensuring a wide range of skills adapted to modern reality of professional fisheries, aquaculture and agriculture (e.g. supply chain, marketing and entrepreneurship).

Finally, support of the local population and therefore **increasing local participation** is essential. EU funds (EMFF and EARDF in particular) **can support the set up an elaborate citizen participation models** where the local population is involved by developing local bottom-up initiatives to turn existing challenges (e.g. beached seaweed or algae-blooms) into business opportunities (e.g. collecting and producing biofertilizers for agriculture).

T and Ullmann J, *Current Status of the Algae Production Industry in Europe: An Emerging Sector of the Blue Bioeconomy,* Front, Mar, 7:626389, 2021. doi: 10.3389/fmars.2020.626389.

[20] COM(2021)400 Communication Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil.

[21] COM(2020)380 Communication EU Biodiversity Strategy for 2030.

4.1.4. Employment, social affairs and inclusion policy

One of the objectives of the European Union is to achieve sustainable development based on **a highly competitive social market economy, aiming at full employment and social progress** (Art 3 of the Treaty on European Union).

The **EU's social acquis** has evolved gradually[22]: The Treaty of Rome in 1957 included provisions on the **free movement of workers**. Secondary legislation to **coordinate social security** for mobile workers has existed since 1958. The Treaty of Rome in 1957 established a **European Social Fund[23],** providing financial support to improve employment opportunities and living standards. European-level action on vocational training started in 1963.

Gradually, the move towards a single market was complemented by **minimum standards** set in EU law, including on workers' health and safety at work, involving and consulting workers and working conditions. This includes legislation adopted via the implementation of agreements concluded between the **social partners**, i.e. representatives of management and labour, at EU level.

In the context of increased macro-economic policy coordination and monetary union, the EU has moved towards a **stronger coordination of Member States' employment and social policies** in the context of the European Semester. Based on proposals by the Commission, the Council adopts country-specific recommendations, including in the field of employment and social policy.

In 2017, the European Parliament, the Council and the Commission proclaimed the **European Pillar of Social Rights**[24]. The Pillar is our guiding compass for fair and Social Europe and includes 20 principles, under the headings of equal opportunities and access to the labour market; fair working conditions; and social protection and inclusion. It will further be an essential framework in the **transitions towards climate neutrality and increased digitalisation of economy and society**, **as well as demographic change**. The aim is to ensure that these transitions are just and fair, leaving no-one and no place behind[25].

While the European Pillar of Social Rights applies to the EU as a whole, many of its principles **are particularly relevant in rural areas**. As indicated earlier, these include notably challenges related to access to employment and quality jobs for women and for young people. The **Reinforced Youth Guarantee** (2020) strengthened the outreach to and activation of vulnerable young people significantly, including those most vulnerable living in rural areas, such as Roma or people with migrant background. It does so through tailored, individualised support, skills strengthening, and partnerships with relevant social services and civil society organisations.

In Principle 17 of the European Pillar of Social Rights, the **right of people with disabilities to inclusion is laid down**. People with disabilities have the right to income support that ensures

[22] For an overview, see SWD(2016)050.Commission Staff Working Document - The EU social acquis,

[23] In the 2021-2027 period, the European Social Fund Plus (ESF+) with a budget of EUR 99.3 billion will remain the main instrument for investing in employment, social inclusion, education and skills in all territories of the EU.

[24] Interinstitutional Proclamation on the European Pillar of Social Rights, Official Journal C 428, 13.12.2017.

[25] COM(2020)014 Commission Communication A Strong Social Europe for Just Transitions.

living in dignity, services that enable them to participate in the labor market and in society, and a work environment adapted to their needs. Disability concerns are also mainstreamed in all relevant principles and reflected in the social policies to implement them (see also section 4.1.6.).

Access to essential services, early childhood education and care as well as enabling services such as training, or long-term care also pose a specific challenge in rural areas. Among others, principle 20 of the European Pillar of Social Rights is particularly relevant for rural areas. It underscores the right to **access essential services**: water, sanitation, energy, transport, digital communications and financial services. Access to essential services can be challenging in rural areas. Several EU initiatives, described in other sections of this document, enhance the availability of essential services in rural areas. National social policies and the initiatives included in the European Pillar of Social Rights Action Plan can further support access, by improving the affordability and accessibility of essential services in rural areas.

On 4 March 2021, the Commission adopted the **European Pillar of Social Rights Action Plan[26].** It sets three new ambitious EU-level 2030 headline targets in the area of employment, skills and poverty reduction[27], which will be supported by a revised Social Scoreboard. The latter will enable to monitor progress towards the implementation of the 20 Principles as part of the well-established policy coordination framework in the context of the European Semester. The Commission has also announced concrete 67 initiatives to implement the principles of the Pillar.

As a follow up of the Action Plan, a proposal for the **European Child Guarantee[28]** was launched with the aim of further preventing and combating social exclusion. This proposal supports Member States in their efforts to guarantee access to quality key services for children in need: early childhood education and care, education (including school-based activities), healthcare, nutrition, and housing.

In 2021, the Commission will launch a **European action plan for the social economy** that will include measures to address challenges faced by the social economy and social enterprises, and to untap the potential of these organisations to generate social innovations and address societal challenges, including in rural areas.

The Commission will propose an initiative on **Long-Term Care in 2022** to set a framework for policy reforms to guide the development of sustainable long-term care that ensures better access to quality services for those in need, including those living in rural areas.

Given the distribution of competences in the field of social and employment policies, delivering on the Pillar is a **shared political commitment and responsibility**. The European Pillar of Social Rights Action Plan received a strong endorsement, from the Presidents of the European Commission and the European Parliament, the Portuguese Prime Minister holding the Presidency of the Council of the EU, the European social partners and civil society organisations. Furthermore, the Porto Declaration adopted by EU Leaders at the Porto Social Summit endorsed the new EU-level 2030 headline targets on employment, skills and poverty reduction, and

[26] COM(2021)102, Commission Communication The European Pillar of Social Rights Action Plan.

[27] The 2030 targets include an employment rate of 78% among the population aged 20-64; 60% of adults to participate in training every year; a reduction of the number of persons at-risk-of-poverty and social exclusion by at least 15 million.

[28] COM(2021)137, Proposal for a Council recommendation Establishing a European Child Guarantee. -

committed to continue deepening the implementation of the European Pillar of Social Rights at EU and national level.

4.1.5. Cross-cutting attention for Inclusion and gender

The European Union has the objective to **combat poverty and social exclusion** in cooperation with Member States. In a number of countries, people in rural areas are much more exposed to risk poverty or social exclusion. EU policies and funding put in place measures to address this issue, including the European agricultural fund for rural development (EAFRD) – one of its priorities 6 refers to "Promoting social inclusion, poverty reduction and economic development in rural areas"-, the European Regional Development Fund (ERDF), the Cohesion Fund (CF) and the European Social Fund (ESF)

Another relevant challenge is **gender**. The workforce in many rural areas is mainly masculine and women are often in invisible/unpaid positions. This is for example the case in family farms (which leaves them without access to income/pensions). Farm owners are mostly men and women usually own smaller farms. Young qualified women often leave rural areas. Hence, there is a need to ensure gender-sensitive employment creation, including funding for women's entrepreneurship and qualified job opportunities beyond the agricultural sector. Ensuring affordable, accessible and high quality early childhood education and care and other care services aimed at promoting work-life balance, as well as empowering women in rural governance would also be relevant. It is also necessary to provide support services for victims of gender-based violence.

The European Commission, published in **2020 the Gender Equality Strategy 2020-2025**[29]. It delivers on the Commission President's commitment to achieving a Union of Equality. The Strategy presents policy objectives and actions to make significant progress by 2025 towards a gender-equal Europe. It announced funding opportunities to women's entrepreneurship knowledge and to invest in basic services' development in rural areas under the Common Agricultural Policy. The Commission will also continue supporting Member States' work on improving the availability and affordability of quality care services for children and other dependents through investments from the European Social Fund Plus, the European Regional Development Fund and the European Agricultural Fund for Rural Development.

Businesses and public bodies in rural areas who wish to undertake economically viable investments can benefit from **InvestEU**. It offers financing to SME's and farmers as well as funding for infrastructure projects. The InvestEU Advisory Hub provides technical assistance and capacity-building support to financial intermediaries and final recipients.

In addition, the **European Institute for Gender Equality (EIGE)** has been conducting research in topics such as gender in agriculture and rural development contributing to a better understanding of the specific challenges of gender in rural areas.

[29] COM(2020)152 Communication A Union of Equality: Gender Equality Strategy 2020-2025.

As underlined in the EU anti-racism action plan 2020-2025[30], discrimination on the grounds of racial or ethnic origin persists. This is particularly true for Roma[31], the largest ethnic minority. Many of them continue to face socioeconomic exclusion, discrimination and anti-gypsyism[32] in their daily lives. **Many Roma people also live in the rural areas**, particularly in poor segregated settlements, with few or no public services and lack of economic opportunities. The lack of local economic activity but also labour market discrimination, the limits in municipality's own margin of manoeuvre (including means, political will or sometimes competences) and insufficient public transport and/ or infrastructure prevent them from benefitting from jobs and mainstream education opportunities in neighbouring urban areas. The Commission adopted in October 2020 the package on the **EU Roma strategic framework for equality, inclusion and participation**. This package is designed to pursue the implementation of the European Pillar of Social Rights. It consists of a Communication and a proposal for Council recommendation on Roma equality, inclusion and participation (currently negotiated in the Council, planned for adoption at March EPSCO). The Communication sets seven objectives at the EU level for the period up to 2030. Three of these objectives are horizontal and four are sectoral in the areas of education, employment, health and social services, housing and essential services. To implement these objectives effectively, the Commission formulates quantitative EU headline targets and proposes the use of a portfolio of indicators. For example, one of the headline targets is to reduce the poverty gap between Roma and the general population as well as between Roma children and the other children by at least half, another aims to cut the employment gap between Roma and the general population by at least half.[33]

The proposal for a Council recommendation on Roma equality, inclusion and participation [34] (adopted in March 2021 EPSCO (Employment, Social Policy, Health and Consumer Affairs) Council configuration) invites Member States to set national targets and aims at advancing the effective implementation of EU equality legislation the use of Union funds for improving the access to social rights and services of Roma people. Those Member States where substantial

[30] COM(2020)565 Communication Union of equality: EU anti-racism action plan 2020-2025.

[31] The reference to 'Roma', as an umbrella term, encompasses a wide range of different people of Romani origin such as: Roma, Sinti, Kale, Romanichels and Boyash/Rudari. It also encompasses groups such as Ashkali, Egyptians, Yenish, Dom, Lom, Rom and Abdal, as well as traveller populations, including ethnic Travellers or those designated under the administrative term gens du voyage and people who identify as Gypsies, Tsiganes or Tziganes, without denying their specificities.

[32] Antigypsyism (a form of racism against Roma) is a historically rooted structural phenomenon that appears at institutional, social and interpersonal levels. It is rooted in a process of 'othering' that builds on negative as well as positive, exoticising stereotypes. While there is consensus about the understanding of antigypsyism among proponents of the need to reinforce the fight against it, there has been a debate about the term. The European Parliament (in its 2015, 2017 and 2019 and 2020 resolutions), the Commission (in its annual communications between 2015 and 2019, and its 2018 conclusions paper), the Council (in its 2013 recommendation and 2016 conclusions) and the Council of Europe have recognised antigypsyism as a barrier to inclusion, and hence the importance of tackling it. The Commission uses the spelling proposed by the Alliance against Antigypsyism, while accepting that different terms might be appropriate in different national contexts.

[33] For the full list of the headline targets and indicators please see Annex 2, *EU Roma framework for equality inclusion and participation* https://ec.europa.eu/info/publications/new-eu-roma-strategic-framework-equality-inclusion-and-participation-full-package_en

[34] Council Recommendation 2020/0288 on Roma equality, inclusion and participation.

investment needs have been identified should embed Roma inclusion in public policies and provide targeted support to marginalised Roma communities in a more effective manner. [35]

The LGBTIQ (lesbian, gay, bisexual, trans, non-binary, intersex and queer) equality strategy 2020-2025[36], adopted by the European Commission on 12 November 2021, sets out key actions and objectives to advance LGBTIQ equality. In line with their respective competences, the strategy foresees actions for the Commission as well as actions that Member States are called upon to implement with the support of the Commission. The strategy pays particular attention to the most vulnerable LGBTIQ people and recognises that geographical remoteness can be an additional vulnerability factor.[37] The Commission has called on the European Committee of the Regions to promote a dialogue with local and regional authorities and civil society on how to advance LGBTIQ equality. Combating inequality in the EU is indeed a shared responsibility and requires joint efforts and action at every level, including the regional and local ones.

The **Strategy for the Rights of Persons with disabilities 2021-2030**[38] was adopted in March 2021 and sets outs various flagships and action for the next decade in order to improve the lives of persons with disabilities in the EU and beyond. It aims to implement the UN Convention on the Rights of Persons with Disabilities to which the EU and all Member States are party. The strategy takes into account the diversity of disability, resulting from the interaction between long-term physical, mental, intellectual or sensory impairments, which are often invisible, with barriers in the environment. It promotes an intersectional perspective, addressing specific barriers faced by persons with disabilities who are at intersection of identities, such as the ones explained in the paragraph above (gender, racial or ethnic origin, LGBTIQ). Persons with disabilities may encounter greater risks of discrimination in rural areas, notably due to accessibility barriers and limited availability of services including those targeted to persons with disabilities.

Moreover and with regard independent living, many persons with disabilities, adults and children, are segregated from community life and do not have control over their daily lives, in particular those living in institutions. This is mainly due to the insufficient provision of appropriate community-based services, housing and technical aids, as well as to the limited availability of support for families and of personal assistance. The situation is particularly difficult in remote and rural areas. On that regard, the Commission will promote and secure financing for accessible and disability-inclusive social housing, including for older persons with disabilities. The Commission will also, by 2023, issue guidance recommending to Member States improvements on independent living and inclusion in the community, in order to enable persons with disabilities to live in accessible, supported housing in the community, or to continue living at home. The UN Convention on the Rights of Persons with Disabilities is an integral part of the EU legal order and is shaping social policies to be disability inclusive and accessible.

[35] See country reports for BG, CZ, ES, HU, RO, SK and in particular their Annex D.

[36] COM (2020) 698 Communication on Union of Equality: LGTIQ Equality Strategy 2020-2025.

[37] In a 2019 FRA survey, 47% of the LGBTI respondents across all groups in the EU live in a big city, 11% in the suburbs or outskirts of a big city, 30% in a town or small city, and 13% in a rural area. (FRA, EU-LGBTI II - A long way to go for LGBTI equality, 14 May 2020)

[38] COM(2021) 101 Communication Union of Equality: Strategy for the Rights of Persons with Disabilities 2021-2030.

4.1.6. European Green Deal/Climate and Environment Policy

The **European Green Deal** establishes an EU target of climate neutrality by 2050, with an intermediate target proposed for 2030 of at least 55% reduction of net GHG emissions compared to 1990 levels. The shift to climate neutrality will be achieved through implementing a range of policies, many of which concern rural areas. These include: the **Renewable Energy Directive**[39], with a binding target of 32% for renewable energy sources in the EU's energy mix by 2030; energy efficiency measures; the **Effort Sharing Regulation**[40] which covers notably the transport, building, waste and agriculture sectors; the **Land Use, Land Use Change and Forestry (LULUCF) Regulation**[41] which covers emissions and removals from managed land, including forestry, farmland and wetlands; and further mainstreaming of climate adaptation policies to enhance ecosystems' resilience and improve climate risk management of public and private investments. Many of these policies are now under revision to make them fit for the new climate target with new proposals planned for adoption in July 2021. Rural innovation and research also supports efforts to mitigate and adapt to the impacts of climate change. Building a resilient rural economy requires an inflow of innovative solutions and their rapid uptake, as well as using natural resources smartly.

The **EU Biodiversity strategy**[42] recognises the need to take urgent action to protect and restore habitats and biodiversity. **Its implementation should provide new opportunities for rural areas**. The biodiversity strategy and Farm to Fork targets for 2030, the half-way point of the long term rural vision, include reducing the use and risk from chemical pesticides by 50%, ensuring that high-diversity features account for at least 10% of the agricultural area, with at least 25% of land farmed organically, reducing fertiliser use by 20% and nutrient losses by 50%, planting at least 3 billion additional trees in the EU by 2030, and restoring 25 000 km of rivers. In addition, legally binding nature restoration targets will be proposed, and more efforts will be required to improve the conservation status of protected habitats and species, and to reduce soil sealing and soil and water pollution. Under the umbrella of the Biodiversity Strategy, new strategies will be developed for sustainable use and management of soils and of forests. The recently adopted **EU adaptation strategy**[43], that sets out how the EU can adapt to the unavoidable impacts of climate change and stresses the importance of implementing nature-based solutions on a larger scale. To that end, the Commission will develop a certification mechanism for carbon removals, to monitor and quantify the climate benefits of land-based removals that will create new income possibilities for rural areas through carbon farming initiatives.

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[39] Directive (EU) 2018/2001 *on the promotion of the use of energy from renewable sources*.

[40] Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

[41] Regulation (EU) 2018/841) on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU.

[42] COM(2020) 380 Communication EU Biodiversity Strategy for 2030.

[43] COM(2021) 82 Communication Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change.

Many other elements of the EU's environmental policy also contribute to ensuring the quality of rural life, including particularly legislation related to water resource management, air quality and environmental impact assessment. The new **Circular Economy Action Plan** ensures that circularity works for people and regions, including rural regions. The recently adopted **Zero Pollution action plan** will contribute to ensuring healthy people and healthy environments, thus maintaining the quality of life and resources in rural areas. The **new EU Forest Strategy** will cover the whole forest cycle and promote the many services that forests provide. The **LIFE instrument**[44] finances actions to develop and demonstrate best practice and innovation to achieve environmental benefits in harmony with local communities.

The **Green Deal Investment Plan**, with nature and biodiversity as a priority, and Invest EU's natural-capital and circular economy initiative (worth 10 billion EUR over the next 10 years) offer **significant opportunities to rural areas and communities to invest in new climate and environmentally friendly ways**, providing finance to get projects started. These, and other policy initiatives such as the Carbon Farming Initiative under the Farm to Fork strategy (including the Carbon Farming Initiative), , green public procurement and the EU Business and Biodiversity platform are intended to make these types of investments more attractive to the private sector, generating economic benefits from socially, climate and environmentally sound business decisions. The EU taxonomy for sustainable finance could play a role in this context. .

The Green Deal has called for additional action at EU level to fight climate change, and it is reasonable to anticipate adapted policy framework and different initiatives and financing possibilities needed to enable the transition to climate neutrality. The raft of measures for climate and environment included in the Green Deal will release funding opportunities and enable positive initiatives to be undertaken. In these circumstances the challenges described above should be addressed and rural areas and communities should be able to seize the opportunities described. This will benefit not only rural areas, but society as a whole.

4.1.7. Bioeconomy

In 2012, the EU adopted a **Bioeconomy Strategy** and updated it in October 2018[2]. The bioeconomy[45] is the only system providing food, feed, and ecosystem services. The revised version puts an increased emphasis on rural development and builds synergies with the CAP. The The 2018 bioeconomy action plan[46] proposes 14 concrete actions along three priority areas: (1) Strengthen and scale-up the bio-based sectors, unlock investments and markets; (2) Rapidly deploy bioeconomies across the whole of Europe; (3) Understand the ecological boundaries of the bioeconomy. The revised EU Bioeconomy Strategy cuts across different policies, including

[44] 'LIFE programme is the EU's funding instrument for the environment and climate action.' European Commission, *LIFE programme*. https://ec.europa.eu/easme/en/life

[45] According to the EC definition, the bioeconomy covers all sectors and systems that rely on biological resources (plants, microorganisms, and derived biomass, including organic waste), their functions and principles, and related products and services. It includes and interlinks i) land and marine ecosystems and the services they provide, ii) all primary production sectors that use and produce biological resources (forestry fisheries and aquaculture), and iii) all economic and industrial sectors that use biological resources and processes to produce food, feed, bio-based products, energy, and services.

[46] European Commission, *Bioeconomy: the European way to use our natural resources. Action plan 2018,* Directorate-General for Research and Innovation 2018. doi :10.2777/79401

research and innovation, the common agricultural policy and its rural development pillar, maritime, fisheries, climate action, environment, industry, energy, etc. It also aims at mobilising Member States, regions and relevant stakeholders. The Bioeconomy Monitoring System[47], developed as part of this Strategy, will allow to track the EU bioeconomy's progress towards sustainability in the EU and its Member States. Several Member States have in fact already developed national bioeconomy strategies

Agriculture, aquaculture and forestry are a fundamental component of the EU bioeconomy, with a high relevance for rural employment and farmer's and forest owners income. Due attention has to be paid to biodiversity, GHG emissions pesticides application as well as nitrogen and phosphorous loads. A sustainable bioeconomy needs to avoid, prevent, and reduce food losses and food wastes, while promoting sustainable diets. Processing unavoidable food by-products, residues, and food waste into added-value products (e.g., biopolymers, bioceramics, packaging materials, bio-based textiles, coatings and composites, bioenergy) can help processors, retailers, and consumers to reduce food waste, and contribute to multiple objectives of the European Green Deal, including circular economy and renewable energy.

The development of new, more diverse bioeconomy value chains can help bring the added value of the bioeconomy to rural areas. The development of this sector would also be linked to economic and social value while protecting biodiversity and the environment. Circular-bioeconomy value chains allow the flow of biomass and value starting from primary sectors in rural areas, moving through manufacturing, retail and ultimately to consumers in urban ones, make its way back to rural areas.

4.1.8. Energy policy

The European Commission supports **the regions' just transition,** which means ensuring that regions are not left behind in the clean energy transformation by offering alternatives to coal and peat regions and supporting alternative (clean) transport as well as heating and cooling solutions. Besides, the European Commission is committed to ensuring that rural regions benefit from the new economic opportunities from renewable energies. The **Just Transition Mechanism (JTM)** is the key EU tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. It provides targeted support to help mobilise at least EUR 150 billion over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition.

The Energy Poverty Recommendation underlines the need to give rural areas in all EU countries the tools to play an active role in a just transition to climate neutrality. European regions can take advantage of technical assistance provided through different programmes. Firstly, the **European Local Energy Assistance (ELENA) tool**. ELENA is a joint initiative of the European Investment Bank (EIB) and Horizon 2020 programme. Horizon 2020 is the financial instrument implementing the R&I EU policy. ELENA tool provides grants for technical assistance for energy efficiency and renewable energy investments targeting buildings and innovative transport. Secondly, the **EU City facility,** set up under the Horizon 2020 programme, aims at **unlocking local potential.** EU City facility supports local authorities and their groupings with tailor-made, fast and simplified financial support (in the form of EUR 60,000 lump sums) and

[47] Knowledge Centre for Bioeconomy: https://knowledge4policy.ec.europa.eu/bioeconomy/monitoring

related services. The objective is to enable municipalities in Europe to **develop relevant investment concepts** related to the implementation of actions identified in their climate and energy action plans. Thirdly, the **Project Development Assistance (PDA) facility**, funded also under the Horizon 2020 programme, gives support to public authorities - regions, cities, municipalities or groupings of those - and public bodies in developing bankable sustainable energy projects. Besides, regions can also use the technical assistance window under the **Resilience and Recovery Fund**.

4.1.9. Home affairs and security policy

The European Commission is exploring concrete ways forward to foster the potential of embedding the **migratory dimension, and its benefits, as part of the comprehensive policy-mix** responding to the demographic challenges and depopulation in rural areas. The integration of migrants in rural areas can contribute to demographic and economic dynamism. Legal migration represents an opportunity for rural areas (notably in light of the needs identified during the COVID-outbreak for seasonal foreign workers[48]). Promoting **social inclusion for all**, but notably people with migrant backgrounds is also a **factor of attractiveness and socio-economic growth in rural areas**, while balancing risks of loneliness.

The New Pact on Migration and Asylum[49] proposed by the Commission stresses the importance of integration as part of a new comprehensive approach to migration and highlights the role of the local and regional actors. As part of the Pact, **the Action Plan on integration and inclusion 2021-2027**[50] presents a variety of actions to promote integration at the local level, including in rural areas and acknowledges specificities of rural areas in this context. Different EU Funds contribute to address this, with the **Asylum, Migration and Integration Fund (AMIF)** supporting the integration of third country nationals in host communities, which includes rural territories. The Action Plan also refers to a **partnership** with rural regions under the long-term Vision for rural areas, recognising the role of local and regional authorities, as key actors of integration.

The European Commission will adopt **a 'Talent and Skills package'** by the end of 2021, which will include measures to revise two existing Directives (Long-term residence, Single Permit) and to develop a talent pool at the EU level. On 17 May 2021, the European Parliament and the Council also reached a political agreement on the **Blue Card Directive**, in view of its swift adoption. When it comes to rural areas, the Commission ensures the respect of rules established in the **Seasonal Workers Directive**, in force since 2016, which is particularly relevant for the agricultural sector.

The European Commission supports a **balanced approach** to make the best of the migratory potential. The proposed actions in the field of legal migration and asylum, can contribute to make the best of the migratory potential for rural areas, given the magnitude of the demographic challenges, the current concentration of non-EU migrants in urban areas (13% of the population)

[48] Kalantaryan S., Mazza J., Scipioni M., *Meeting labour demand in agriculture in times of COVID 19 pandemic*, 2020.

[49] COM(2020) 609 Communication on a New Pact on Migration and Asylum.

[50] COM(2020) 758 final, Action Plan on integration and inclusion 2021-2027.

and less frequently in rural areas (only 4%). A balanced approach, can also contribute to migrant population to see opportunities in rural areas supporting the revitalisation of rural areas.

This work strand relies on an **evidence-based approach**, supported by the expertise in migration, territorial and demographic analyses of the Knowledge Centre on Migration and Demography in the Commission's Joint research Centre, linking demography with other domains (e.g., migration, economics, environment, health, education, politics, regional, and foresight).

Various **activities of organised crime groups** impact on the daily life of citizens and the environment in certain rural areas. This includes environmental crime (waste trafficking and dumping), labour exploitation in the agricultural and forestry sector (which can be linked to migrant smuggling and trafficking in human beings), drug production (laboratories for the production of synthetic drugs and the related dumping of dangerous substances, illegal cultivation of cannabis, etc.), property crime (theft of agricultural equipment, burglaries, etc.), and all other forms of organised crime. In order to respond to the challenges and new trends of organised crime, the European Commission adopted the EU Strategy to tackle Organised Crime 2021-2025[51].

Environmental crimes notably affect society in its entirety, and especially natural areas. It causes an ever-growing threat to the ecosystem and affects the climate, biodiversity and human health, notably in rural areas.The Commission promotes action by the EU, Member States and the international community to step up efforts against environmental crime, as stated in the **Security Union Strategy**[52]**.** In rural areas, there is a need to pay specific attention on the prevention and fight against **environmental crime** and their devastating effects. Currently, the European Commission is assessing whether the Environmental Crime Directive is still fit for purpose. **Trafficking in human beings**, notably labour trafficking, takes advantage of high-risk environments, which can include the agricultural, forestry and food manufacturing sectors. Businesses in certain sectors such as agriculture may rely on the workforce of people who are in a vulnerable situation. The EU Strategy on Combatting Trafficking in human beings 2021-2025[53] includes key actions to support anti-trafficking objectives, including in rural areas, such as assistance, support, protection and re-integration of victims of trafficking.

4.1.10. Enlargement and Neighbourhood Policy

The EU's enlargement policy is aimed at countries currently aspiring to become members of the European Union. The European Neighbourhood Policy (ENP) governs the European Union's relations with 16 of its closest Southern and Eastern Neighbours.

In its external dimension, it is in the EU's interest that its neighbours, and in particular the enlargement candidate countries and potential candidates are included to the possible extent in relevant policies, given their European perspective and obligation to align with the EU acquis. Such inclusion is particularly relevant in the areas of agriculture and rural development as well as other relevant policies for rural areas such as transport policy, for the mutual benefits of connectivity, trade and market access.

[51] COM(2021) 170 Communication on the EU Strategy to tackle Organised Crime 2021-2025

[52] COM (2020)605 Communication on the EU Security Union Strategy.

[53] COM(2021) 170 Communication on the EU Strategy on Combatting Trafficking in Human Beings 2021-2025.

Agriculture and related sectors still contribute around 10% of the Gross Domestic Product (GDP) in the western Balkan countries, while in some, the share of agriculture, forestry, and fisheries is close to 20% of the total workforce (40% in the case of Albania). Despite the rich natural resource base, agri-food systems in all countries in the region faces numerous challenges and remain constrained by deeply-rooted structural problems: the average farm size is several times lower than in the EU, labour productivity and yields are very low – due to underdeveloped technological capabilities and many households are still engaged in subsistence agriculture. While assisting gradual transformation of agri-food production systems in the Western Balkans, it is necessary to ensure that the transition in he longer term does not contribute further to unemployment or depopulation of rural areas or to deterioration of the rural landscapes and biodiversity loss in pre-accession countries.

EU pre-accession assistance (IPA), and in particular the support programmes for agriculture and rural development (IPARD) can be used to assist the economies of the pre-accession countries in reforming and restructuring their agri-food sectors and enabling rural communities to harness opportunities in the circular and bio-economy, making the rural economies of those countries more resilient to potential climate change impacts and the rural areas – vibrant spaces for their citizens. This would contribute to countering outmigration flows from rural areas.

Decentralised renewable energy is also an opportunity for rural areas and its largest extension to enlargement countries would be beneficial for grid stability and for increasing renewable energy's market share. For an effective green transition for Europe, the inclusion and cooperation of the EU's closest neighbours is essential. In addition, the EU neighbours 'rural youth represents a huge human capital. In this context, ERASMUS+ will in the new period be available to the EU's neighbours to strengthen in an inclusive manner education and match skills with employers' needs.

4.1.11. Digital policy

The European Commission has the responsibility to contribute to the development of **a digital single market** to generate smart, sustainable and inclusive growth. Digitalization can largely address rural challenges such as lack of adequate infrastructure and isolation; ageing population due to migration of younger generations to cities or abroad; or lack of access to appropriate services, in particular as regards to health or education, due to lack of professionals in their region, resulting in low reduced provision of long-term care. Ensuring appropriate digital infrastructure allows for better accessibility of e-services (including eHealth), education, better economic opportunities and growth (including smarter manufacturing and agriculture). The Commission aims to accelerate the roll-out of fast broadband internet in rural areas to achieve the objective of 100% access by 2025. As reaffirmed by the European Pillar of Social Rights, access to good quality digital communications is an essential service which needs to be accessible to everyone.

The 'Smart Village' concept set up initiatives to revitalize rural services through digital and social innovation, broadband is an enabler for this solutions. However, **Smart Villages Strategies** can also help overcome the digital gap by recognising the different starting points of

rural areas and villages and co-designing digital pathways from the bottom-up while at the same time building bridges with the essential top-down strategies.[54]

The European Commission supports the deployment of digital services and broadband networks via the **Connecting Europe Facility (CEF)**. This funding mechanism supports trans-European networks in the three sectors, transport, telecommunications and energy. It is a key EU instrument to facilitate cross-border interaction between public administrations, businesses and citizens. For 2014-2020 programming period CEF Telecom has a budget of approximately EUR 1 billion, out of which EUR 870 million are dedicated to Digital Service Infrastructures (DSIs). The rest is for connectivity networks.

The answer of the EU to help repair the economic and social damages caused by the COVID-19 pandemic lays out the foundations for a modern and more sustainable Europe, by supporting the green and digital transition. Member States must adequately integrate the challenges regarding digital transitions and support investments and reforms in this area.

The European Commission has been working together with Member States to respond to the need for the deployment of broadband in rural and remote areas. The European Commission presented in 2017 a five actions **toolkit on how to bring better broadband in rural areas**.

Action 1 is to set up **Broadband Competence Offices (BCOs)** to advise local and regional authorities on ways to develop broadband. The BCO Network brings together different levels of government, experts and European Commission representatives to exchange knowledge and good practices contributing to the capacity to bring high-speed broadband connectivity to all EU citizens. It contributes to bridging the rural/urban digital gap.

Action 2 deployed **technical assistance to regions** with low levels of broadband coverage to unlock administrative and financial bottlenecks.

Action 3 designed a **common methodology** for planning, reporting, monitoring broadband investments.

Action 4 introduced a **"rural proof test"** to prioritise broadband deployment in rural areas in the structural and investment funds.

Finally, action 5 had the objective to update the Commission's guide to broadband investments. In 2020 a **Broadband Handbook: 'Facing the challenges of broadband deployment in rural and remote areas'** was published. It aims at helping those areas to overcome the digital divide affecting their citizens, communities and economic activities, by taking a closer look at success factors and good practices. European municipalities have also benefitted from the **WiFi4EU initiative**, that grants vouchers of a value of EUR15 000 to install Wi-Fi equipment in public spaces that are not already equipped with a free Wi-Fi hotspot. This initiative aims to provide free public Wi-Fi connectivity for citizens and visitors networks in 6 000 to 8 000 communities by 2020 across the EU.

Furthermore, the European Commission has been supporting the deployment of digital **health solutions through Digital Innovation Hubs in all regions**. Digital technologies, such as telemedicine, biosensors for remote diagnosis and monitoring, with a focus on prevention, can bring improvements in patient outcomes.

[54] ENRD, *Smart Villages and rural digital transformation*, 2020. smart_villages_briefs-smart_villages_and_rural_digital_transformation-v07.pdf (europa.eu)

4.1.12. Space policy

Space is of strategic importance for Europe and a key enabler for jobs, growth and investments. Space technologies, data and services can support numerous EU policies, key political priorities and different economic sectors.

Three flagship space programmes deliver on the EU's space policy:

- Copernicus: the EU world reference Earth observation system providing Earth observation data and services
- Galileo: Europe's own global navigation satellite system, providing highly accurate global positioning data
- European Geostationary Navigation Overlay Service (EGNOS)*:* provides safety critical navigation services to aviation, maritime and land-based users over Europe

The **Copernicus programme** is designed to support the implementation and monitoring of European policies, such as the CAP, at national or regional level. The Land component of Copernicus program, with its land cover products, addresses the needs of several EU Policy areas relevant to the territorial dimension such as: Land degradation and desertification, Forest resources, Biodiversity, Water resources, Agriculture, Rural development and Food security. It provides indicators such as land take, high nature value farmland, and landscape fragmentation between natural and semi-natural land. Providing relevant, reliable and cost-efficient remote sensing data and information, **Copernicus helps to maximise the potential of smart farming and speed up the introduction of new technologies in the farming sector**. Copernicus helps assess agricultural land use and trends, crop conditions and yield forecasts. It also supports input management, farm management recording and irrigation management. The domains of application of Copernicus are not limited to precision farming. They also include seasonal mapping of cultivated areas, water management and drought monitoring, as well as subsidy controls, all of them supporting development of resilient and prosperous rural areas and helping to take informed decisions.

The use of precise positioning provided by **EGNOS and Galileo satellite navigation systems supports the wider introduction of precision agriculture** and can help Europe's farmers become more efficient. Synergies between both, Copernicus and European Global Navigation Satellite Systems (GNSS) programmes, bring additional added value to the various agriculture applications and support management and control of the Common Agriculture Policy (CAP) or provide cost-efficient and reliable solutions in favour of the rural economy and people.

4.1.13. Transport policy

In 2013, the EU embarked on a new era in transport policy and, in accordance with the **TEN-T Regulation**, created the basis for Europe to build a modern integrated transport system that strengthens the EU's global competitiveness and can meet the challenges for sustainable, smart and inclusive growth. With this new policy for the Trans-European Transport Network, the EU aims to build a high-performance EU-wide transport infrastructure network, using the Connecting Europe Facility (CEF) and other EU funding programmes and initiatives.

The **Connecting Europe Facility (CEF)**, key EU funding instrument to promote growth, jobs and competitiveness through targeted infrastructure investment, supports the development of interconnected trans-European networks also in the field of transport. In the transport sector, CEF is dedicated to the implementation of the TEN-T and aims at supporting investments in cross-

border connections, missing links as well as promoting sustainability and digitalisation. The total budget for CEF Transport was EUR 24.05 billion for the period 2014-2020.

The European Commission counts on **including rural areas and remote challenges among the priorities of its mobility policy**. Actions in the field of transport will include actions to help ensure that rural and remote areas are not left behind in terms of transport and mobility services, to better support connectivity between rural and peri-urban areas with metropolitan/urban areas via sustainable mobility options (and assess region-to-region connectivity including air travelling), or to improve road safety in rural areas. Through smart and innovative transport and mobility solutions and better information the digital revolution can positively affect rural areas so that rural and remote areas benefit from the planning and implementation of the Europe-wide transport infrastructure network ("TEN-T").

The **EU urban mobility package planned for 2021** will contain relevant measures to tackle the rural dimension to help ensure that rural and remote (including outermost regions) areas are not left behind in terms of transport and mobility services. The package will consider adapting the objectives, needs and guidance often associated with the urban mobility initiatives to cities and villages of smaller dimensions. Specific actions addressing urban-rural linkages, and how to better support connectivity between rural and peri-urban areas with metropolitan/urban areas via sustainable mobility options will be included.

The European Commission cooperates with Member States in the area of speed and speed management. It is committed to the good implementation of the **Road Infrastructure Safety Management Directive**, revised in 2019. It requires regular safety audits and inspections on all primary roads in the EU (in addition to all motorways) as well as a network-wide safety risk assessment resulting in a prioritised

The European Commission is currently assessing whether specific provisions should be imposed on **MaaS/ticketing** services[55] to ensure that they properly support rural areas and do not only benefit areas which are already well connected and served by transport offers. MaaS/ticketing Similarly, the European Commission is also currently assessing measures to support the development of ticketing/Mobility as a Service applications which could be an opportunity for rural areas as it should help to increase offers and connectivity, by facilitating for example access to car-sharing, shuttle bus etc.

4.1.14. Health policy

Accessibility of healthcare in rural areas is a challenge in a number of Member States. The availability of health services is limited mainly due to shortages of medical professionals, insufficient incentives for doctors and nurses to settle their practice in rural areas and insufficient alternative solutions, for example telemedicine of mobile care teams. Organisation of **health services is primarily a responsibility of Member States**. The Commission supports Member States in improving access to healthcare through mobilising efforts to reform health systems through the European Semester and providing evidence-based information and support with the help of European funds. Specifically, the third Health Programme is supporting projects aiming

[55] Maas (Mobility as a Service) 'MaaS seeks to allow people to access a variety of transport services - old and new - via their smartphone.' In Crozet Y., Coldefy J., *Mobility as a Service (MaaS): A digital roadmap for public transport authorities*, Centre on Regulation in Europe, 2021.

at the retention of health professionals medical deserts (areas where the population has inadequate access to healthcare), which includes rural areas, and better allocation of health resources in the areas with a lower coverage of health services. The selected initiatives will be implemented in 2021 and 2022.

Access to healthcare is high on the Commission's agenda. In March 2021, this commitment has been reinforced in the **European Pillar of Social Rights Action Plan**[56]. Actions proposed by the Commission target the most vulnerable groups and encourage national investments in healthcare, workforce and skills.

Commission also supports Member States in achieving and maintaining high **vaccination coverage** rates for public health reasons. Vaccination services should be easily accessible for all citizens, in terms of affordability, but also in terms of physical proximity, so that citizens can get their vaccinations, and those of their children close to where they live and work. Immunisation through vaccination is the best defence we have against serious, preventable, and sometimes deadly, contagious diseases. The waning of public confidence in vaccination, geographical differences in accessibility, and rise of disinformation on vaccination are a cause of concern. In December 2018, EU Health Ministers adopted a Council Recommendation on strengthened cooperation against vaccine-preventable diseases[57] addressing these and other challenges, and calling for a multitude of actions to be carried out at EU level to increase the uptake of vaccines in Europe. The Council Recommendation is implemented via a publicly available roadmap[58].

The **Europe's Beating Cancer Plan**[59], adopted on 3 February 2021, is one of the Commission's flagship initiatives and a main priority in the area of public health. The Plan addresses cancer in a holistic way through four pillars: (1) prevention; (2) early detection; (3) diagnosis and treatment; and (4) quality of life of cancer patients and survivors. Europe's Beating Cancer Plan aims to improve cancer prevention and care for all EU citizens, decrease existing inequalities between and within Member States and reduce the increasing pressure on health and social systems and the overall economy. It will support local and regional governments and health authorities in rural areas to promote and facilitate active and healthy lifestyles and invest sufficiently in the specific cancer needs of rural areas changing population.

The European Commission also supports regional and national innovative health ecosystems and exchange of best practices for improved health and wellbeing through different partnerships, such as the **European Innovation Partnership on Active and Healthy Ageing** or the **Active and Assisted Living Programme**. These partnerships and ecosystems, as well as innovative actions supported through **Horizon Europe** and **Digital Europe Programme** will continue to support the development and uptake of innovative health solutions for citizens and patients in EU regions. Actions include the support the development of healthcare including eHealth in rural

[56] The European Pillar of Social Rights Action Plan. https://ec.europa.eu/social/BlobServlet?docId=23696&langId=en

[57] Council Recommendation (2018/C 466/01) on strengthened cooperation against vaccine-preventable diseases.

[58] European Commission, Roadmap fort he implementation of action by the European Commission based on the Commission Communication and the Council recommendation on strengthening cooperation against vaccines preventable diseases. https://ec.europa.eu/health/sites/health/files/vaccination/docs/2019-2022_roadmap_en.pdf

[59] COM(2021) 44 Communication Europe's Beating Cancer Plan.

areas through access to data across borders, better data for research as well as person-centred and personalised healthcare.

4.1.15. Education policy

High quality education and training is the basis for sustainable and fair growth; it nurtures innovation and lays the foundation for active citizenship. It can play a key role in helping rural areas becoming more resilient, connected and sustainable by 2040. This requires targeted actions in improving access, participation and quality of education and training in rural areas, compensating for challenges related to distance or size, but also for socio-economic factors.

The Commission will propose a **Council Recommendation on Pathways to School Success** in 2022. The objective of this initiative is to promote better educational outcomes for young Europeans, in particular by reducing underachievement in basic skills (reading, maths and science) and early leaving from education and training, and by increasing the number of young people with an upper secondary qualification. **'Pathways to School Success'** is essential to ensure more inclusive and equitable education systems, in which all learners can achieve their full potential, irrespective of their socio-economic background, and be prepared for a healthy and successful adult life.

Digital education can also be an opportunity for rural areas. One aspect of the European Commission's 2021-2027 **Digital Education Action Plan** addresses how the deployment of digital technologies (apps, platforms, software) can be used to improve and extend education and training. Blended learning is an example of how technology can be used to support teaching and learning processes in rural areas. Drawing on the COVID-19 crisis, and as part of the Digital Education Action Plan, the European Commission will propose a **Council Recommendation on online and distance learning for primary and secondary education in 2021**. It will address what school education systems need to develop to provide different learning modalities (in-school and distance; online and off-line; synchronous and asynchronous) that are effective, inclusive and engaging. The objective is to support Member States in adapting their school education systems to be more flexible and inclusive and to cater for a broad range of learner needs, changing circumstances, and pedagogical approaches. Improving blended learning is, on the one hand, an immediate response to specific lessons learned from the COVID-19 crisis. On the other, it provides a more long-term opportunity to support to educators and learners in rural areas.

A second key aspect of digital education is the need to equip all learners with digital competences (knowledge, skills and attitudes) to live, work, learn and thrive in a world increasingly mediated by digital technologies. Another action of the Digital Education Action Plan, the **Digital Education Hub** is a network of national advisory services on digital education to exchange experience and good practices on the enabling factors of digital education. It could also help make the rural education and training systems fit for the digital age and help people in rural areas to achieve higher digital skills, which are needed to live, work, learn and thrive in the 21st century. **Alliances for Innovation** can support actors in rural areas in strengthening their innovation capacity by boosting innovation through cooperation and flow of knowledge among higher education, vocational education and training (both initial and continuous), and the broader socio-economic environment, including research.

Higher Education Institutions can benefit from the **HEInnovate**[60] toolbox in their entrepreneurial and innovation capacity, and use the guidance from the **Higher Education and Smart Specialisation**[61] initiative to guide investments from ERDF into skills and Human Capital.

The European Commission also supports the improvement of education and vocational education and training (VET) in rural areas through the **Erasmus+ programme**. The Erasmus+ programme offers opportunities for schools, adult education and VET provider (including VET schools focusing on agriculture skills) and other educational institutions to cooperate and to strengthen the quality of their education and training offer. In addition, it promotes the participation of teachers, trainers, and learners to learning experience abroad. A priority for participants with fewer opportunities and incitements for facilitating the travel of participants from the most remote areas, favours the inclusion of rural areas. The introduction of a new accreditation scheme, thought to facilitate access to the programme, should benefit to educational actors from rural areas.

The **Erasmus+ programme** 2014-2020 has supported over 7000 cooperation projects with rural development as one of their focus areas. The new Erasmus+ programme 2021-2027 will continue supporting cooperation projects of organisations addressing rural development in the fields of education, training, youth and sport. In addition, the new Erasmus+ will facilitate access to the programme to people with fewer opportunities, including people from rural and remote areas, with dedicated inclusion measures. These inclusion measures will range from financial mechanisms for participants and organisations, to targeted communication, awareness raising activities and easier-to-access activity formats.

Under the Erasmus+ Programme, the **European Universities, also supported by the Horizon programme,** can be helpful to improve the community **engagement of higher education institutions to support more alignment** between local, regional, national levels and to develop coherent regional and local policies.

The **European Universities**, **selected under Erasmus +,** will develop new interdisciplinary curricula and implement innovative pedagogies that will offer more relevant and adapted skills to their students and staff for sustainable development, e.g. linked to the digital and green transitions. An example relevant for rural areas is the E^3UDRES^2 European University, the "Engaged and Entrepreneurial European University as Driver for European Smart and Sustainable Regions". In this alliance, technical universities and universities of applied sciences located in a small or medium-sized European cities are anchored in their surrounding environments, including rural areas, but at the same time internationally connected and active within the European Higher Education Area. This alliance will address the development of small and medium-sized cities and their rural areas into smart and sustainable regions as its central issue. The higher education institutions in this European University alliance are committed to supporting their rural surroundings to overcome the challenges of the digital age as well as urbanisation.

[60] HEInnovate, developed by the European Commission with support from the OECD, is a self-assessment tool for Higher Education Institutions who wish to explore their innovative potential. https://heinnovate.eu/en

[61] European Commission, *Higher Education for Smart Specialisation A Handbook*, 2018. https://s3platform.jrc.ec.europa.eu/en-US/w/higher-education-for-smart-specialisation-a-handbook

The European Commission has been supporting the employability of young people and strengthening the solidarity between its citizens, across Member States via the **European Solidarity Corps**. They support the engagement of young people in organisations for solidarity volunteering activities or solidarity jobs and rural areas have been a privileged target for activities under this Programme.

4.1.16. Cultural policy

Across the territories of the European Union, culture is highly valued by residents and visitors alike. Cultural and creative industries are also **a vital asset for regional economic competitiveness and attractiveness**, while cultural heritage is a key element of the territories' **image and identity** and often times the focus of tourism. This is equally true for urban as well as rural areas.

The **New European Agenda for Culture**, **Work Plan for Culture 2019-2022** of the Council of the European Union, as well as the **European Framework for Action on Cultural Heritage** recognise the contribution of culture to local development and propose specific actions relevant for rural areas.

The EU can help local stakeholders to tap into the **potential of culture on the local level for rural areas**. Some of the specific topics that are being addressed are **culture for economic growth**, **culture for social cohesion and inclusion**, **culture for well-being** as well as **sustainable cultural tourism**.

In relation to culture on the local level in rural areas, EU can assist stakeholders with **capacity building**, **networking** and **financing specific initiatives**. This can be done via **Creative Europe** programme (the only EU programme specifically set up to support cultural and creative sectors), but also via opportunities available for culture through other EU funding mechanisms, including, for instance, **European Structural and Investment Funds**, **Erasmus+** or **Horizon Europe**.

In 2020, within the framework of **Voices of Culture**, the structured dialogue between the cultural sector in the European Union and the European Commission, an expert group was convened to examine the topic of **the role of culture in non-urban, rural and peri-urban areas**. 35 organizations from across Europe were selected through an open call for proposals in order to propose specific recommendations on the topic and exchange views with the Commission services. Their report, containing **specific recommendations and case studies**, was published in April 2020[62].

4.1.17. Industrial strategy policy

Rural areas host many actors of economic ecosystems and contribute to each and every one of them in a way or another. The **Industrial Strategy for Europe**[63] aims at taking into account all players within a value chain and reflect on the need for new ways of thinking and working to lead

[62] Read more about the work of the group as well as Voices of Culture here: Voices of culture, *The role of culture in non-urban areas of the European Union*. https://voicesofculture.eu/2019/10/10/the-role-of-culture-in-non-urban-areas-of-the-european-union/

[63] COM (2020)102 Communication A New Industrial Strategy for Europe.

the twin transitions. There are around 3,000 Clusters[64] organisations across Europe accounting for 1 out 4 jobs in the EU, reaching out to over 100,000 SMEs, some 8,000 large firms, about 11,000 universities and other research organisations. SMEs members of an industry cluster are more likely to be located in a small town or a village, rural areas are thus fully concerned by the European industrial strategy, the jobs relating to any of the ecosystems and the economic activity of their actors.

The Strategy focuses on several industrial ecosystems and in the key role of **clusters**; groups of firms, related economic actors, and institutions that are located near each other and have reached a sufficient scale to develop specialized expertise, services, resources, suppliers, skills. Clusters can be helpful to illustrate interdependencies between Member States, assess the investment needs in a value chain and identify business opportunities with a cross-border dimension. They **bring a supra-national and European added-value** to all ecosystems by going beyond national administrative boundaries.

Rural areas should seize the opportunity of working with such actors to preserve the socio-economic fabric and long-term development of rural territories. **Multi country and cross-border projects**, in particular involving other EU programmes, would benefit from efficient coordination that the Commission stands ready to provide as highlighted in the Communication on Annual Sustainable Growth Strategy 2021. Many of these projects will also enhance the strategic autonomy of the European economy.

Clusters capture important linkages in terms of uptake of technologies, skills, infrastructure, business development and research cutting across different firm sizes and industries. Hence, they can contribute **upscaling and disseminating widely outcomes of EIP-Agri projects** across industrial ecosystems.

Clusters are already strengthening the resilience of the agri-food sector and providing opportunities for its greening and digitalisation through their current activities and initiatives in the framework of COSME, Horizon 2020/Europe, etc. There is a need to **foster synergies between the EU Industrial policy and the CAP to ensure efficiency and allow for optimization** of actions where relevant.

Clusters are **key facilitators to further develop and reap up the benefits of emerging industries**. Their actions in relation to sectors such as advanced packaging or pharma food could provide positive opportunities for farmers and cooperatives across the EU but also help delivering on the CAP specific objective of safe, nutritious and sustainable food.

By integrating business, research, public administration, civil society/users of an ecosystem, clusters are well positioned to **effectively accelerate an uptake of advanced technologies**. They shall thus be seen as a strategic partner to deliver flagship areas such as *Power up* or *Scale-up* foreseen by the Recovery and Resilience Facility also in rural territories.

[64] Clusters are defined as groups of firms, related economic actors, and institutions that are located near each other and have reached a sufficient scale to develop specialized expertise, services, resources, suppliers, skills.

4.1.18. Competition policy

Article 107(3) (a) and (c) of the TFEU states that the Commission may consider compatible with the internal market, regional State aid to promote the economic development of certain disadvantaged areas within the European Union. On the basis of essentially economic (GDP) and social criteria (unemployment), Member Sates draw up regional aid maps identifying these disadvantaged areas, and are authorized to support companies located there.

Sparsely and very sparsely populated areas (many of them rural) are considered as fulfilling automatically the conditions to be included in the regional aid maps drawn by Member States; areas facing geographical isolation (islands, peninsulas or mountain areas) can be included by Member States in their regional aid maps without specific justification, also taking into account their geographical characteristics.

The General block exemption regulation (GBER), which allows Member States to grant aid without prior approval by the Commission, offers several possibilities of support to undertakings in these areas, in many fields (RDI, training, employment, energy, environmental protection etc.).

Finally, the European Union Guidelines for State aid in the agricultural and forestry sectors and in rural areas 2014 to 2020 and the Agricultural Block exemption regulation 2014 (ABER) contain specific provisions for aid in rural areas that is co-financed from the EAFRD.

Regional State aid rules are currently being revised and have been subject to a public consultation (draft guidelines for the period 2022-2027). The criteria for designating assisted areas should not substantially changed, since the evaluation of the existing text did not reveal any significant flaw. **However, the designation of assisted regions will be based on updated figures, which can have an impact on the list of covered (including rural) areas.**

The GBER is currently under review to allow better synergies between EU funding and national funding for the next programming period. **During the public consultation, some Member States and organisations requested a specific facilitated treatment of State aid for community-led local development ('CLLD') projects covered by the common provisions regulation (Regulation (EU) No 1303/2013 and future regulation), which could be particularly relevant for rural areas.** This proposal is currently under assessment.

The rules applicable in the agriculture and forestry sectors and in rural areas are also currently under review.

Specific state aid measures related to the COVID-19 crisis for rural areas: via relaxed state aid rules, extra flexibility for administrative requirements and controls is provided, in order to keep markets and food security stable.

4.1.19. Research and innovation policy

Research and Innovation (R&I), including social innovation, is necessary to effectively support job creation and sustainable growth in rural regions. Innovation is critical for the future competitiveness and sustainability of rural economies, job creation, and overall preservation of healthy, vivid, and connected rural areas. Attracting entrepreneurs and start-ups, leveraging their capacity to offer high quality of life for their inhabitants, will be key. Business models and innovation concepts, such as clusters, human capital, capacity and community building, along with good governance and citizen engagement, should be designed to address the specificities and needs of rural regions and their communities. The bottom-up development of innovation-

friendly local regulation is also needed. This will allow suitable support mechanisms and networks to exchange best practices to bring breakthrough innovation, start-ups and scale-ups to the attention of national and regional policies.

The EU finances Research and Innovation (R&I) projects through its **Horizon 2020** programme. R&I activities are engaging with rural actors in developing new knowledge and innovative solutions to facilitate generational renewal in rural areas and farming, foster synergistic territorial relations (e.g. rural-urban), develop forward-looking rural business models, help rural citizens and farmers benefit from digitalisation, improve access to social and health care in rural areas (reducing loneliness and isolation), increase their attractiveness for young people and tourists, promote the sustainable development of rural areas, and develop science-policy-society interfaces that improve democracy.

Under Horizon 2020, the Commission launched a €1 billion call for R&I projects that respond to the climate crisis, help protect Europe's unique ecosystems and biodiversity, and contribute to meeting the objectives of the Green Deal. The Horizon 2020-funded European **Green Deal Call** will spur Europe's recovery from the coronavirus crisis by turning green challenges into innovation opportunities, including in rural areas.

Knowledge exchange organised by the **CAP-funded rural networks** (ENRD and EIP-AGRI) help these innovations spread across Europe. Funding for R&I will continue with the successor to Horizon 2020, Horizon Europe.

Horizon Europe's Pillar 2 (Global Challenges and European Industrial Competitiveness) includes six clusters. All clusters are relevant for rural areas with Cluster 6 having a prominent role as it will focus on food, bioeconomy, natural resources, agriculture and environment. The aims of this cluster are to:

- lead the transition to a sustainable, climate-neutral, circular and environment-friendly economy, and better understand the underlying drivers of the sustainability opportunities and challenges, including in rural areas,
- foster an innovative, responsible and competitive European economy generating sustainable jobs and growth, and create competitive advantages on a sustainable basis including in rural areas.

R&I activities in rural areas will also be developed in at least three of the five **Horizon Europe's Missions**:

- A Climate Resilient Europe - Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and just Europe by 2030: through several areas of R&I such as regenerating community and social infrastructure.
- Mission Starfish 2030 - Restore our Ocean and Waters: through several targets such as zero plastic litter generation or eutrophication.
- Mission on soil health and food: through the development of living labs and lighthouses, the mission will engage local authorities, citizens, scientists, land managers and other actors in developing joint innovations to improve soil health and the state of related ecosystem services, link rural and urban communities.

Horizon Europe's third pillar will include three policy areas contributing to rural promotion and supporting innovation potential: the European Innovation Council, the European Innovation Ecosystems (EIE) and the European Institute of Technology. Place-based innovation policies and support to "innovation ecosystems" will be at the core of EIE R&I policies. Thriving innovation ecosystems rely on appropriate place-based regulatory frameworks, education and training, connectedness, support and incentives. Activities under EIEs will cater for the wider landscape of

innovation ecosystems in Europe and include multi-level actors and innovators from the local ecosystems committed to actively improving incremental and radical innovations.

New knowledge and innovative solutions to improve access to social and healthcare in rural areas (reducing loneliness and isolation) contribute to increase the attractiveness for young people, older people and tourists. R&I develops innovative solutions for better rural infrastructure, both tangible and intangible (such as the social fabric and culture in communities), better rural services and solutions for the sustainable development of cultural tourism.

Innovation generated by the **Cultural and Creative Industries (CCIs)** as well as the **Cultural and Creative Sectors (CCS)** is multifaceted, blending technological, business model, social and creative innovation that can help rural development in many ways. In addition to CCIs and CCS support to innovation can also be achieved by improving the supply chains and production networks in rural areas. The development of supply chains and local markets could contribute to strengthening growth and sustainability in rural areas.

Due to their innovation potential and their ability to increase competitiveness, CCIs and CCS can contribute significantly to the attractiveness of European regions, including rural areas, not only in terms of tourism, but also for example by increasing investments in the private sector. CCIs and CCS can attract talents and business to rural areas and for example develop cultural creative quarters (such as turning historic buildings into museums or historic venues).

Furthermore, CCIs and CCS strengthen the rural economy and society more widely by supporting the development of new sustainable industries, such as creative industries, services and tourism. CCIs and CCS can also contribute to improving intangible rural infrastructure, while considering vulnerable groups and the needs of existing activities and population, including an ageing population. CCIs and CCS support social innovation that helps these groups to better integrate into rural societies and develop more just, inclusive and sustainable rural areas.

The "**Silver economy**" is the part of the economy that concerns Europe's older citizens. It covers all the economic activities relevant to the needs of older adults and improving the quality of life, the inclusion and consideration in society, as well as the involvement in economic activity of the ageing population. The European Commission produced a background report on the Silver Economy in 2015, which noted that Europe could benefit from the ageing trend, partly because of the large public sector involvement and the opportunity of using public money more effectively to foster new markets and growth. The Silver economy thus constitutes an untapped opportunity for Europe's rural areas, which could be developed through R&I actions in the area of CCIs and CCS.

4.1.20. Data and statistics

The European Commission has been providing a variety of statistical indicators for the EU's territory contributing to the analysis of the situation in rural areas.

The European Commission has developed typologies of local areas, including the so-called **Degree of Urbanisation** with the objective to better account for the diversity of the European territory and rural areas. These typologies were integrated into the common classification of territorial units for statistics (NUTS Regulation). Giving them legal recognition and ensuring a harmonised application will allow for referencing these typologies from other legislation and will lead to even more European statistics on rural areas in the future. To name an example: the recently adopted **Integrated European Social Statistics (IESS) regulation**, which provides a

unified framework for seven previously independent data collections (including the surveys on Labour force and Income and living conditions) identifies the Degree of Urbanisation as a core social variable standardized across all surveys.

To appreciate how territorial demographic and socio-economic diversities across the EU territories[65] affect rural areas it is important to avail of data at high spatial resolution. Besides the use of official statistics, the European Commission is active in fostering the production of knowledge also through the development and adoption of advanced modelling and analytical platforms which allow analysing urban and rural dynamics (status and future trends, at fine granularity) and the interactions between territorial parameters such as e.g. demography, land changes, accessibility and remoteness, economy and others.

T**he European Commission will make more use of georeferenced data** by systematically integrating and mainstreaming geospatial information into statistical production and collecting more geospatial data. This will allow for more detailed regional and local level statistics in areas such as demography, health, education, tourism and agriculture.

Furthermore, the European Commission, in close cooperation with international partners, has produced a **methodological manual to define cities, towns and rural areas for international comparisons**[66]. The objective is to further improve quality and better harmonise statistic at international level contributing to broader analysis of rurality.

Relevant data will be, where possible, disaggregated by sex to allow for thorough analyses of gender inequalities, challenges and opportunities. Where available, data will additionally be broken down by ethnicity, as foreseen by the EU Roma strategic framework.

[65] Aurambout J.P., et al., *The demographic landscape of EU territories*, 2021.

[66] Eurostat, *Applying the Degree of Urbanisation — A methodological manual to define cities, towns and rural areas for international comparisons, Manuals and Guidelines*, 2021. https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-02-20-499

4.2. THE IMPORTANCE OF COORDINATION BETWEEN EU FUNDS FOR RURAL AREAS

As we can see from the previous sections, several EU policies and initiatives have links to rural areas. This section concentrates on two particularly important areas of intervention of the Union: support to rural development outside farming under the CAP and the Cohesion Policy, which deserve coordination to be as effective as possible on the ground.

4.2.1. Current and future EAFRD support beyond agriculture and forestry

- Current EAFRD support not directly linked to agriculture and forestry

Most support from the EAFRD is targeted to farming activities or farming communities. Depending on the strategy of the national or regional RDPs, the measures with the largest funding share include farming in areas with natural constraints, support to agri-environment practices, support to on-farm investments, support for setting-up of young farmers and organic farming.

Certain measures, as set out in the Rural Development Regulation EU (No) 1305/2013, do not directly target the agriculture and forestry sectors, but are none the less beneficial for farmers as part of the rural communities or business owners. Such measures provide support for basic services in villages, initiatives creating local jobs, diversifying farm activities and/or added value to products among others. Over the past decades, these measures are an important element in a holistic approach for the benefit of the rural economy, ensuring good living conditions for rural communities.

Such support in the current period (now extended to 2022) is programmed under the Rural Development Priority "Promoting social inclusion, poverty reduction and economic development in rural areas"[67] ("Priority 6").

For the period 2014-2020[68], 27 Member States have programmed some EUR 14.8 billion, of which EUR 14.0 billion corresponds to measures providing support not directly linked to agriculture and forestry. This represents **14.8% of the total EU-27 EAFRD budget, of which 48% is for LEADER and 41% is** for the measure "Basic services and village renewal". The tables below show the share of the EAFRD 2014-2020 programmed under priority 6 for measures not directly linked to agriculture and forestry, at EU level and at Member State level.

[67] The remaining priorities show a bolder sectorial orientation (agriculture, forestry and food chain).

[68] This excludes funds for the transitional years 2021 and 2022 from the EAFRD and the European Union Recovery Instrument (EURI) as these have not yet been programmed in the rural development programmes.

Table 11 EAFRD allocation not directly link to agriculture and forestry by measure and by Member State

Measures programmed under Priority 6	% of EU-27 EAFRD
M01 - Knowledge transfer and information actions	0,05%
M02 - Advisory services, farm management and farm relief services	0,01%
M04 - Investments	0,4%
M06 - Farm and business development	1,3%
M07 - Basic services and village renewal	6,1%
M08 - Forestry	0,1%
M13 - Areas with natural constraints	0,2%
M16 - Cooperation	0,2%
M19 - Support for LEADER local development	7,1%
M21 - Covid-19 mitigation support	0,05%
Total	**15,6%**
Total for non-agricultural measures (highlighted in grey)	**14,8%**

MS	% of non-agri support in MS EAFRD allocation
EU-27	**14,8%**
AT	12,9%
BE	9,6%
BG	28,2%
CY	11,0%
CZ	6,7%
DE	25,4%
DK	7,8%
EE	16,9%
ES	12,2%
FI	12,5%
FR	8,3%
GR	10,9%
HR	20,2%
HU	15,0%
IE	7,2%
IT	11,2%
LT	15,0%
LU	7,2%
LV	14,3%
MT	6,6%
NL	4,7%
PL	18,9%
PT	5,5%
RO	23,5%
SE	21,7%
SI	7,9%
SK	15,3%

Source: European Commission – Financing plans of EAFRD Rural Development Programmes (June 2021)

Beyond these two measures, support is also granted for training, advice, support to business development and cooperation projects.

While LEADER is deeply rooted in the CAP, it is important to look at the scope and extent of the **measure "Basic services and village renewal".** The budget programmed under Priority 6 for this measure (**EUR 5.8 billion or 6.1% of total EAFRD**, as shown in the table above) represents 41% of the total budget programmed under Priority 6 not directly linked to agriculture and forestry. The details by Member State are as follows:

Table 12 % of M07 under P6 in Member State EAFRD allocation and % of M07 in total of the non-agri support by Member State.

MS	% of M07 under P6 in MS EAFRD allocation	% of M07 in total non-agri support for MS
EU-27	**6,1%**	**41,0%**
AT	6,2%	47,6%
BE	2,6%	26,6%
BG	21,3%	75,4%
CY	6,0%	54,5%
CZ	0%	0%
DE	10,6%	41,8%
DK	0%	0%
EE	0%	0%
ES	1,4%	11,8%
FI	1,9%	14,8%
FR	2,2%	25,9%
GR	1,7%	15,7%
HR	13,9%	69,1%
HU	6,7%	44,8%
IE	0%	0%
IT	4,4%	38,8%
LT	4,2%	28,2%
LU	0%	0%
LV	8,0%	55,8%
MT	0%	0%
NL	0%	0%
PL	10,4%	54,9%
PT	0,1%	1,2%
RO	13,5%	57,5%
SE	14,0%	64,5%
SI	0,9%	11,3%
SK	5,7%	37,4%

Source: European Commission – Financing plans of EAFRD Rural Development Programme (June 2021)

These investments in basic services and village renewal in rural areas often consist in small scale investments (like agri-tourism, small-scale manufacturing or points of sale for local or farm products) which often benefit farming families directly.

Similar investments can be funded under the ERDF, and in some cases by the Cohesion Fund. There are no strict demarcation rules, but the EAFRD Regulation[69] refers explicitly to the funding of "small-scale infrastructures", with the exceptions of investments in broadband and renewable energy, for which Member States have to ensure demarcation and complementarity of support available under different Funds of the Union. The same approach applies as regards other support to non-agricultural activities, which can also be funded by the EAFRD as well as the ERDF/Cohesion Fund. This double possibility (being funded either under the EAFRD or under ERDF/Cohesion Fund) for these types of investments is chosen particularly by Member States or regions which have limited ERDF funding compared to the needs and/or no Cohesion funding (see also below) or particularly high needs to develop their rural infrastructures in addition to basic large infrastructure (trans-European, national, regional).

[69] Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005.

- **Future EAFRD support not directly linked to agriculture and forestry**

In view of the Long term Vision for rural areas, Commission President von der Leyen has stressed the importance of ensuring that "the needs of rural areas will be specifically catered for in the CAP Strategic Plans"[70].

Besides, the Commission proposal for a CAP Strategic Plan Regulation (SPR)[71] for the CAP post 2020 generally maintains the scope of public intervention of the EAFRD as in the current period, while providing more flexibility to Member States in designing interventions in rural areas. The proposal foresees a specific objective under Article 6(h) to *"promote employment, growth, social inclusion and local development in rural areas, including bio-economy and sustainable forestry",* as well as five result indicators to monitor progress towards this objective.[72]

Among the eight broad types of interventions that will frame the rural development support in the future CAP Strategic Plans, four may also support activities not directly linked to agriculture or forestry:

- Investments (Article 68 of SPR) contributing to the CAP objectives[73];
- Installation of young farmers and rural business start-up (Article 69 of SPR);
- Cooperation (Article 71 of SPR);
- Knowledge exchange and information (Article 72 of SPR).

It is important to ensure a coordinated approach and synergies between policies and funds contributing to development of rural areas. The reform proposal entails certain **limitations as to what can be funded by the EAFRD** as regards investments in infrastructures and business development. According to the SPR proposal, **investments in large infrastructures** not being part of local development strategies will not be eligible (Article 68(3)(g)).

As regards **rural business start-up**, according to the SPR proposal, support for rural business start-up may only be granted to help the start-up of **rural business linked to agriculture and forestry** or farm household income diversification (Article 69(2)(b)). The business start-up of **non-agricultural activities** in rural areas can only be supported if part of local development strategies (Article 69(2)(c).

The issue of future demarcation and complementarity between funds is addressed below in section 4.2.2.

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[70]President von der Leyen's mission letter to Janusz Wojciechowski https://ec.europa.eu/commission/commissioners/sites/default/files/commissioner_mission_letters/mission-letter-janusz-wojciechowski_en.pdf

[71] Proposal for a Regulation of the European Parliament and of the Council establishing rules on support for strategic plans to be drawn up by Member States under the Common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulation (EU) No 1305/2013 of the European Parliament and of the Council and Regulation (EU) No 1307/2013 of the European Parliament and of the Council. COM(2018) 392 final.

[72] Result indicators R.31 to R.35 of Annex I of the SPR proposal (COM(2018) 392 final).

[73] Article 68 does not list all possible investments under the CAP Plan, but rather provides a negative list of investment expenditure not eligible for support.

4.2.2. Support for rural areas under Cohesion Policy and other policies and improved coordination

- **Support for rural areas under current Cohesion Policy**

The Cohesion policy funds also address investment needs in rural areas.

Article 176 of the Treaty on the Functioning of the European Union (TFEU) establishes that the ERDF is intended to help to redress the main regional imbalances in the Union. Under that Article and the second and third paragraphs of Article 174 of the TFEU, the ERDF is to contribute to reducing disparities between the levels of development of the various regions and to reducing the backwardness of the least favoured regions, *among which particular attention is to be paid to regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions.*

For the programming period 2014-2020, the funds from the ERDF, ESF and the Cohesion Fund for rural areas amount to EUR 33.3 billion. The funds contribute as follows to "rural areas [which are] thinly populated":

11% of ERDF = **EUR 22.5 billion**

7% of ESF = **EUR 5.7 billion**

8% of CF = **EUR 5.1 billion**

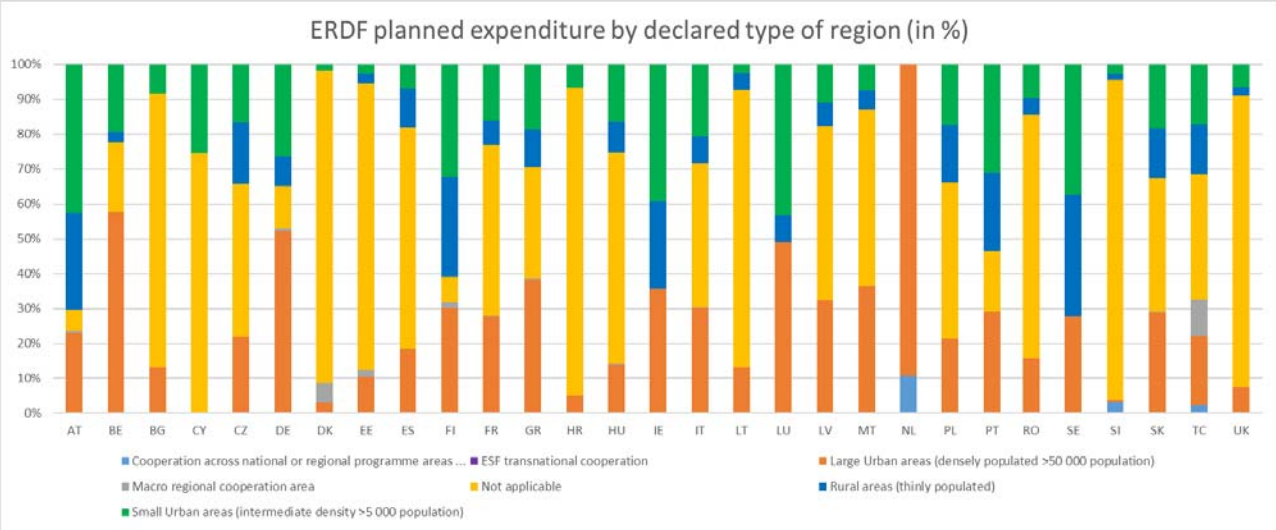
As the programming of Cohesion Policy funds is carried out at the level of priorities, figures at execution level may be higher than the planning level. In other words, **investment in rural areas is greater than the figures above** seem to suggest, specifically for "rural areas (thinly populated)". More than half of Cohesion Policy investments cannot in fact be categorised by type of territory as they are made at a level which covers both urban and rural areas. For example, investments made to improve the businesses or social infrastructure of a small town may be registered as urban by the programme authority, but would nevertheless benefit the surrounding rural area. This is, however, not the case for the remote rural areas.

The following charts show the distribution of Cohesion Policy funding per fund, Member State and type of territory, including rural areas.[74]

The category "not applicable" indicates funds that have not been categorised by type of territory by Member States. This may indicate that the investments concerned is covering both urban and rural areas, thus also possibly benefitting rural areas.

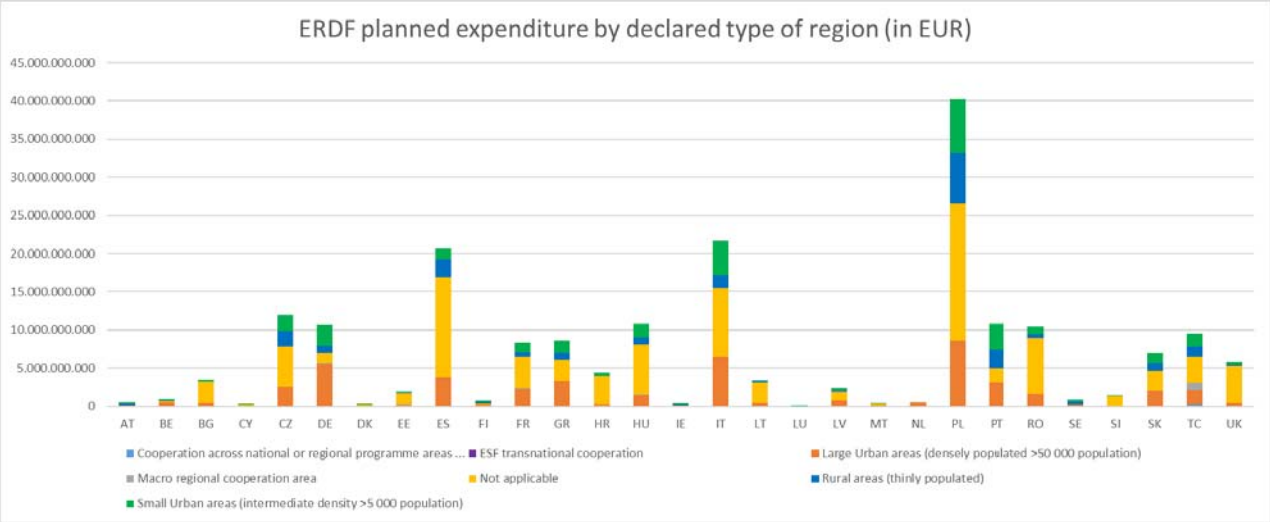
[74] The charts are based on data as of June 2021.

Figure 58 ERDF planned expenditure by declared type of territory in %



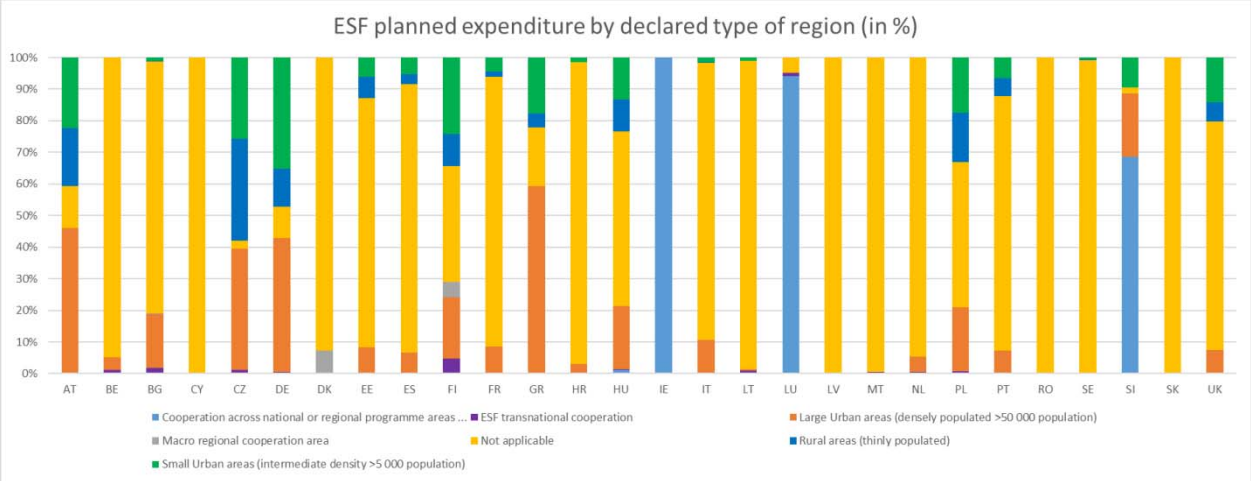
Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

Figure 59 ERDF planned expenditure by declared type of territory (in EUR)



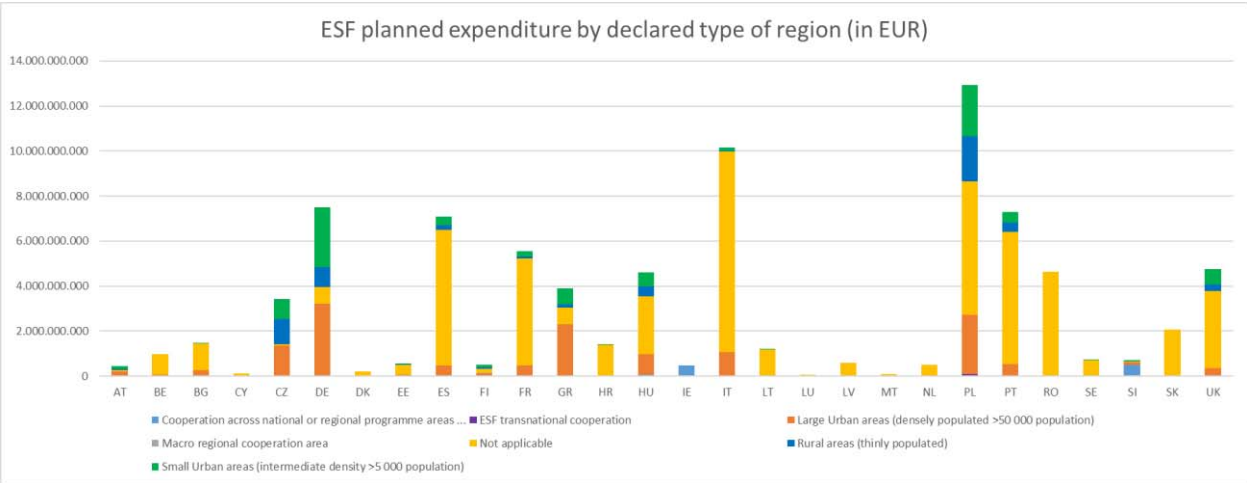
Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

Figure 60 ESF planned expenditure by declared type of territory (in %)



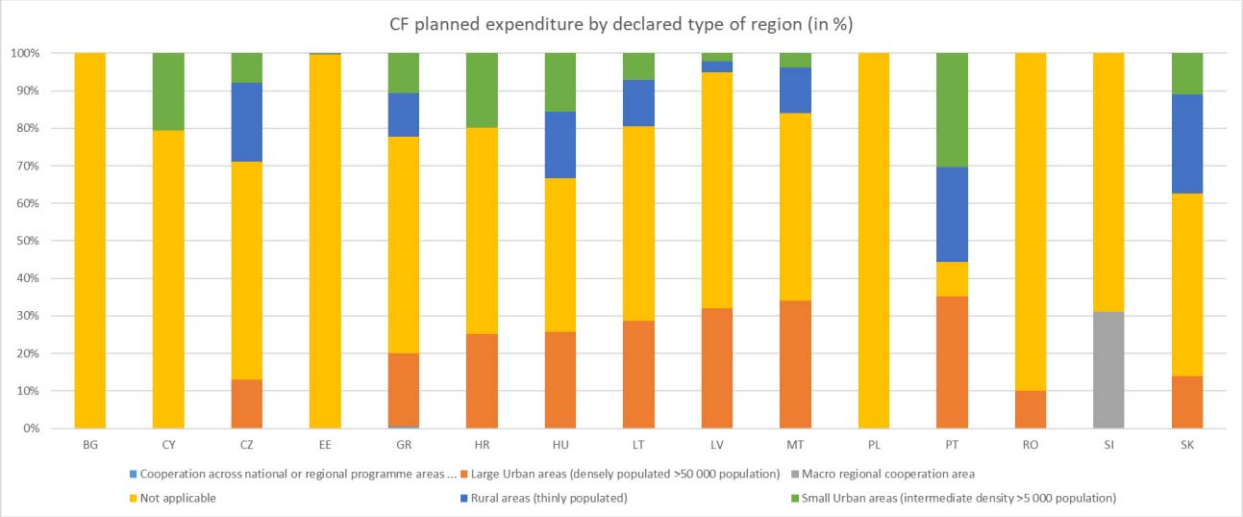
Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

Figure 61 ESF planned expenditure by declared type of territory (in EUR)



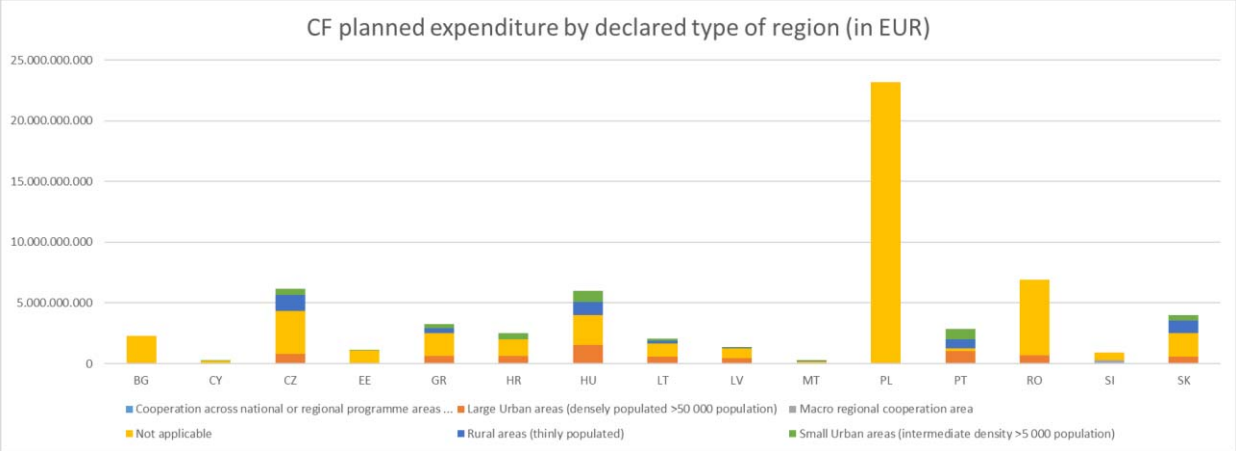
Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

Figure 62 Cohesion Fund planned expenditure by declared type of territory in %



Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

Figure 63 CP planned expenditure by declared type or region (in EUR)



Source: European Commission – Cohesion Open Data Platform https://cohesiondata.ec.europa.eu/ (June 2021)

- **Support for rural areas under future Cohesion Policy and Maritime Policy**

Cohesion Policy, together with the European Maritime Fisheries and Aquaculture Fund (EMFAF), will continue to provide support also in relation to rural areas, according to the **policy objectives** included in Article 4 of the CPR, and in particular point e) thereof[75]:

[75] Politically agreed text. (Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund Plus, the Cohesion Fund, and the European Maritime and Fisheries Fund and financial rules for those and for the

a) a more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity;
b) a greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation and risk prevention and management, and sustainable urban mobility;
c) a more connected Europe by enhancing mobility;
d) a more social and inclusive Europe implementing the European Pillar of Social Rights;
e) **a Europe closer to citizens by fostering the sustainable and integrated development of all types of territories and local initiatives**.

In addition, under this policy objective *e)*, the ERDF shall support the specific objective of *fostering the integrated and inclusive social, economic and environmental local development, culture, natural heritage, sustainable tourism and security, in areas other than urban areas. Support under policy objective 5 shall be provided through territorial and local development strategies, through the forms set out in points (a), (b) and (c) of Article 22 of Regulation [CPR]*. (Article 2(1)(e)(ii) of the future ERDF Regulation[76]).

There is no earmarking funding mechanism specifically for rural areas. However, the co-legislators have agreed on introducing a new Article 8a in the ERDF regulation as follows: *In accordance with Article 174 TFEU, the ERDF shall pay special attention to addressing the challenges of disadvantaged regions and areas, notably rural areas and areas which suffer from severe and permanent natural or demographic handicaps. Member States shall, where appropriate, set out an integrated approach to addressing demographic challenges or specific needs of such regions and areas in their partnership agreements in accordance with Article 8(1)(ga) of the of Regulation (EU) 2018/xxxx [new CPR]. Such an integrated approach may include a commitment on dedicated funding for that purpose.*

- Demarcation, coordination and complementarity between EAFRD and other support policies for rural areas

It is essential that close coordination between the policies is maintained to ensure that the funds active in rural areas are implemented in a coherent and coordinated way, as in the 2014-2020 period, not least with a view to ensure that all identified needs are addressed (no funding gaps). While most other shared management funds maintain the Partnership Agreement as the main coordinating planning tool at the start of the programing process, the CAP Strategic Plans will not be covered by the Partnership Agreement but the SPR contains provisions to guarantee and demonstrate coordination, synergy and complementarity.

The EAFRD remains the main specialised instrument for supporting the rural economy including agriculture and rural communities. However, since EAFRD funds will be insufficient to address all challenges and needs in rural areas, other Funds also provide support in rural areas, and the EAFRD must work in efficient synergy, complementarity and coordination with national and

Asylum and Migration Fund, the Internal Security Fund and the Border Management and Visa Instrument. COM/2018/375 final).

[76] Politically agreed text of the future ERDF Regulation. (COM/2018/372 Proposal for a Regulation of the European Parliament and of the Council on the European Regional Development Fund and on the Cohesion Fund.).

other EU funds (notably cohesion, social, regional and maritime funds), each of them in consistency with its own objectives, purposes and scope.

In the investment areas where several funds may intervene, it is primarily a task for Member States to ensure the synergy, demarcation, coordination and complementarity between the funds active in rural areas, to be followed closely by Commission services. Member States will clarify their decisions in this regard in the Partnership Agreement for the funds covered by the CPR, as well as in the CAP Strategic Plans.

Overall, to assess intervention areas where several funds may intervene, and to avoid any risk of double funding as well as funding gaps, coordination and demarcations arrangements have been agreed and must be translated into the programming and implementation processes. In addition to the EAFRD and Cohesion Policy, also funds from the EMFAF and the Asylum, Migration and Integration Fund (AMIF) can be mobilised. The main intervention areas that may be supported by several funds are the following:

- Investments in infrastructure and basic services (ERDF-EMFAF-EAFRD)
- Business development (in coastal/rural areas) (ERDF-EMFAF-EAFRD-ESF+)
- Nature conservation actions in Natura 2000 areas (ERDF-EMFAF-EAFRD)
- Climate and environment (ERDF-EMFAF-EAFRD)
- Research and innovation e.g. smart specialisation strategies (ERDF-EAFRD)
- Education and training, capacity building, knowledge exchange (in coastal/rural areas) (ESF+-EMFAF-EAFRD)
- Social inclusion initiatives (ESF+-ERDF-EAFRD-AMIF)
- Broadband (ERDF-EAFRD)
- Tourism and cultural heritage (ERDF-EMFAF-EAFRD)

Operations funded by EAFRD are with few exceptions of a small-scale character. In comparison, Cohesion Policy is able to finance larger scale investments, in line with its focus on broader territorial development aims (e.g. linked to connectivity, job creation and economic growth), although it may also support smaller-scale actions. Cohesion Policy may therefore be less likely to support the type of projects supported by the EAFRD (in particular the ones in remote and sparsely populated rural areas facing particular challenges, and support under the LEADER approach).

To avoid possible “funding gaps” in such disadvantaged territories, the coordination of EU funds is essential to ensure that funds are mobilised in full complementarity.

The specificity of the Members States should also be taken into consideration, as there are Member States which have limited ERDF funding and are not eligible for Cohesion Fund support, or lower CAP income support to farmers.

4.3. THE RESPONSE TO THE CRISIS FOLLOWING THE OUTBREAK OF THE COVID-19 PANDEMIC

The outbreak of the COVID-19 pandemic and the measures put in place to curb the spread of the virus in the beginning of 2020 have restricted the individual and social life of all citizens in an unprecedented manner and severely impacted the European economy.

In spring 2020 the European Commission took a number of initiatives to address the immediate impact of the crisis from several angles. These include proposals for new, exceptional measures as well as increased flexibility to existing rules allowing re-direction of funds to the urgent needs.

On 19 March 2020 the European Commission adopted a **Temporary Framework for state aid measures to support the economy following the COVID-19 outbreak**. The framework enabled Member States to use the full flexibility foreseen under State aid rules to support the economy in this difficult context. The Temporary framework has subsequently been amended and extended several times. The possibilities for public support to research, testing and production of products relevant to fight the coronavirus outbreak, to protect jobs and to further support the economy have been increased. It was further amended to enable recapitalisation and subordinated debt measures, and to further support micro, small and start-up companies and to incentivise private investments. The latest amendment of 13 October 2020, prolongs the Temporary Framework until 31 December 2021 and enables aid covering part of the uncovered fixed costs of companies affected by the crisis.

In April 2020 the Commission launched two packages of measures: **the Coronavirus Response Investment Initiative (CRII)** and the **Coronavirus Response Investment Initiative Plus (CRII+)**, which were swiftly endorsed by the European Parliament and the European Council. Through these initiatives existing cohesion policy funds have been re-oriented and new funds are available in all EU countries and regions to tackle the crisis.

The Commission proposed the **SURE Regulation** on 2 April 2020, as part of the EU's initial response to the pandemic. The temporary Support to mitigate Unemployment Risks in an Emergency (SURE) is available for Member States that need to mobilise significant financial means to fight the negative economic and social consequences of the coronavirus outbreak on their territory. It provides financial assistance up to EUR 100 billion in the form of loans from the EU to Member States to support job-retention schemes. SURE is a crucial element of the EU's comprehensive strategy to protect jobs and livelihoods, and mitigate the negative socio-economic consequences of the coronavirus pandemic. The instrument has been successful in reducing the increase in unemployment in the beneficiary Member States.[77] By 25 May 2021, the EU had provided nearly EUR 90 billion in back-to-back loans. All 19 EU Member States which have asked to benefit from the scheme have received part or all of the requested amount.

The Commission further ensured that mobile workers who qualify as critical in the fight against the COVID-19 pandemic can reach their workplace. Seasonal workers are critical to the agricultural sector in terms of harvesting, planting and tending functions, especially in the current season.

[77] COM(2021) 148, SURE: Taking Stock After Six Months. Report on the European instrument for Temporary Support to mitigate Unemployment Risks in an Emergency (SURE) following the COVID-19 outbreak pursuant to Article 14 of Council Regulation (EU) 2020/672.

Member States have also been encouraged to use the potential of rural development measures to support actions to mitigate the crisis. **A new exceptional and temporary measure has been adopted to address the liquidity problems of farmers and agri-food SMEs.** The measure allows Member States to mobilise up to 2% of their EAFRD budget to provide liquidity support to those farmers and agri-food SMEs that have been impacted the most by the crisis. Farmers and other rural development beneficiaries can also benefit from loans or guarantees to cover operational costs of up to EUR 200,000 at favorable conditions, such as very low interest rates or favorable payment schedules.

4.3.1. A recovery plan for Europe: NextGenerationEU

To help repair the economic and social damage caused by the COVID-19 pandemic, the European Commission, the European Parliament and EU leaders have agreed on a recovery plan for Europe, named **NextGenerationEU**, as part of the Multi-annual Financial Framework for 2021-2027, which was finally in place on 17 December 2020.

NextGenerationEU, which is designed to boost the recovery, is the largest stimulus package ever financed through the EU budget. A total of EUR1.8 trillion will help rebuild a post-COVID-19 Europe through several existing or new instruments. **NextGenerationEU is not only meant to lead the way out of the crisis, but also to lay the foundations for a modern, resilient and more sustainable Europe through a green and digital transition.**

The **Recovery and Resilience Facility (RRF)** is the main instrument of NextGenerationEU. RRF will make EUR672.5 billion in loans and grants available to support reforms and investments undertaken by Member States. The aim is to mitigate the economic and social impact of the COVID-19 pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. Member States will have access to the funds available in the Recovery and Resilience Facility through national Recovery and Resilience Plans (RRP), to be approved by the Commission.

Member States can use the RRPs to support the recovery and the green and digital transition in rural areas. For the green transition, several types of investments in rural areas could be supported, such as land restoration, improvement of the producers' position in the supply chain, land-based carbon sinks, investments in circular economy and bio-economy, sustainable food production, biodiversity etc.

The key areas for potential investment in digitalising agriculture and rural areas include broadband, investment in the bioeconomy and renewable energy, knowledge, innovation, cooperation and social capital for sustainable agricultural production and investments to improve the economic, social and environmental sustainability of rural areas. Investments in infrastructure, mobility and public and social services are necessary to sustain rural areas and strengthen their resilience.

The **Technical Support Instrument** provides technical support upon request of EU Member States to design and implement reforms. The support is provided across a wide range of policy areas, including the green and digital transitions in rural areas.

Within the Cohesion Policy, the **Recovery Assistance for Cohesion and Territories of Europe (REACT EU) instrument** was proposed with the objective to foster crisis repair in the context

of the COVID-19 pandemic and its social consequences and preparing a green, digital and resilient recovery of the economy. REACT-EU (of total budget of EUR 50.6 billion[78]) aims to bridge the gap between the immediate crisis response, facilitated by CRII/CRII+ amendments of the CPR 2014-2020, and the long-term recovery, which will be supported with the 2021-2027 Cohesion Policy. This means still focusing on rebuilding the resilience of healthcare systems, restoring labour markets, supporting workers and enterprises, addressing the social impact of the crisis, while preparing future-proof foundations of recovery. The mix of investments will depend on the case-by-case analysis in a given region or Member State.

REACT-EU under Cohesion Policy also provides for targeted measures to support SMEs to prepare for a green and digital transition as well as crisis liquidity support. In the 2021-2027 programming period, Cohesion funds support dedicated investment in SME competitiveness and innovation in particular amounts to approx. EUR 80 billion. The smart specialisation approach for investments in innovation under the ERDF promotes diversification outside the agricultural sector, notably in areas linked to the Green Deal such as renewable energies, the bio economy and climate change adaptation, as well as the strengthening of value chains in manufacturing and extractive sectors.

This new funding of EUR 50.6 billion is a top up to funding still available under 2014-2020 programmes and additional to the cohesion allocations 2021-2027. In addition, an extra allocation of EUR 10.8 billion will be implemented by the Just Transition Fund.

NextGenerationEU further includes an additional EUR 8 billion to the EAFRD directed at addressing the impact of the COVID-19 crisis and its consequences for the Union agricultural sector and rural areas. These funds should pave the way for a resilient, sustainable and digital economic recovery in line with the objectives of the Union’s environmental and climate commitments and with the new ambitions set out in the European Green Deal.. They will be implemented in the current rural development programmes which have been extended to 2021-2022.

[78] Data for this section is in current prices.

5. FORESIGHT FOR RURAL AREAS

In addition to activities relating to consultation, analysis and policy review, foresight provided building blocks for constructing the Long term vision for rural areas.

Foresight, as a discipline for generating collective intelligence about the future in a systemic way, offers a structured way forward to gain useful insights about possible mid- to long-term developments. Building on a participatory process, foresight helps to imagine alternative and preferred futures and to create a shared understanding of possible consequences of current trends, influencing factors and incremental as well as disruptive changes.[79] It supports stakeholders in developing visions to actively shape the future.

A **vision** is an aspirational, engaging image of the future, inspiring, providing a sense of direction to steer action, challenging, but achievable.

5.1. SETTING THE SCENE FOR 2040

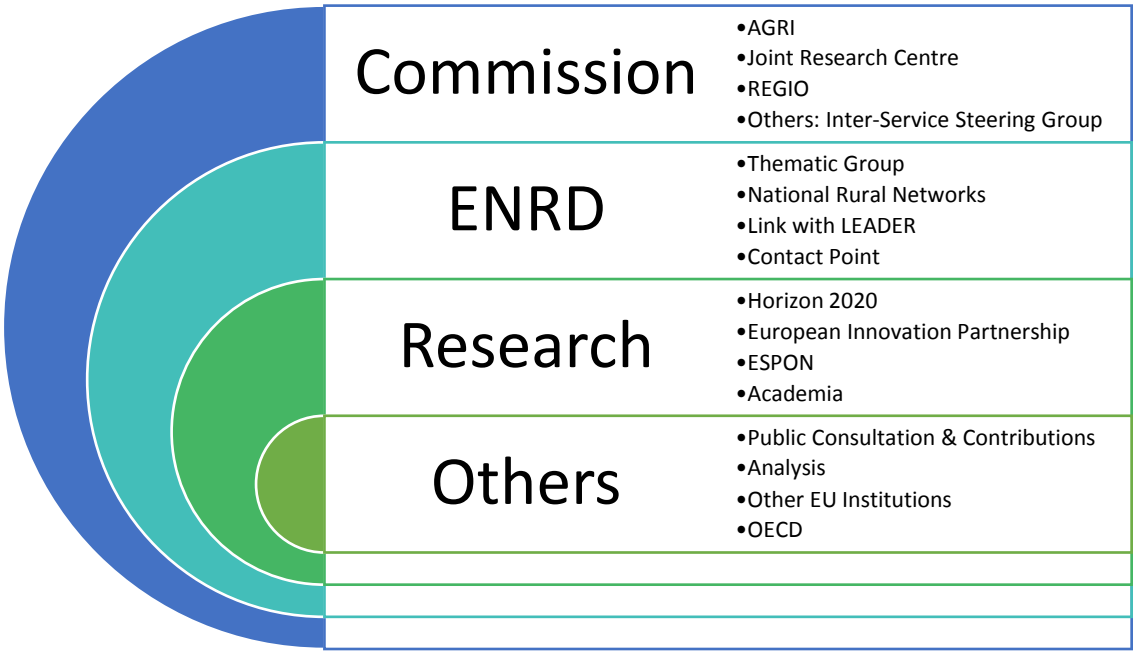
The horizon for the long-term vision is **2040**, mid-point between 2030 – with the United Nations Agenda for Sustainable Development articulated around 17 Goals (Sustainable Development Goals) and the European Green Deal targets, and 2050 – timeline for a "Clean Planet for All". This means looking 20 years ahead - less than the time for "generational renewal", for today's children to become adults. However, the Long-term Vision for rural areas should not just stop in 2040, but should be seen as part of a dynamic process to move ahead, even beyond 2040, for instance to be on track for climate neutrality by 2050.

To project oneself into 2040, a **participatory foresight** process was used, relying on multiple stakeholders and sources. While the public consultation was on-going, foresight drew on **analysis**, especially on the challenges and opportunities identified in section 1, as well as on **research** and **innovation** projects, broader academic work, European and international references.

Feedback and replies to the public **consultation** also included forward-looking contributions on the vision for 2040. For the purpose of consistency, these inputs are presented in the synopsis report and not duplicated here. In short, the public consultation echoed the call for recognition and revalorization of the vital and multiple roles of rural areas. Rather than the backward image of rural areas lagging-behind, the vision should offer forward-looking, positive prospects, leaving no one and no place behind.

[79] V. Sucha, M. Sienkiewicz (ed.), *Science for Policy Handbook*, Elsevier, 2020.

Figure 64 Participatory foresight for contribution to the long term Vision for EU Rural Areas



The Joint Research Centre (**JRC**) of the European Commission provided references and carried out a foresight exercise to develop scenarios together with the European Network for Rural Development (**ENRD**).[80]

The **ENRD Thematic Group** (TG) on the Long term Vision for rural areas (#Rural2040) had a pivotal role both for scenario development and for facilitating multiple contributions for the vision. It was established following a call for expression of interest launched in early summer 2020[81]. The group consisted of 55 members from across the EU, participating in a personal capacity, from National Rural Networks, Managing Authorities, Local Action Groups (LAGs), local and regional authorities, European stakeholder and research organisations, and staff from the European Commission.

Amongst references, the JRC could rely on its work on the Commission's **Megatrends** Hub.[82] Megatrends are long-term driving forces that will most likely have a significant influence on the future. The first 'Commission Strategic Foresight report', focusing on resilience, provided a preliminary analysis of the vulnerabilities and capacities revealed by the COVID-19 pandemic in the EU and its Member States, in light of the possible acceleration or slowing down of these megatrends due to the crisis. Likely changes in megatrends are depicted in Figure 65. For

[80] ENRD official website. https://enrd.ec.europa.eu/

[81] ENRD, *Long Term Rural Vision*. https://enrd.ec.europa.eu/enrd-thematic-work/long-term-rural-vision_en

[82] Megatrends are continually reviewed and updated by JRC experts. The definitions of the 14 megatrends are available at: European Commission, *The Megatrends Hub*. https://ec.europa.eu/knowledge4policy/foresight/tool/megatrends-hub_en

instance, the report indicated that COVID-19 pandemic has deepened inequalities, as well as accelerated hyper-connectivity and demographic imbalances[83].

Figure 65 Potential impacts of COVID 19 on megatrends

Source: European Commission, Charting the course towards a more resilient Europe, 2020 Strategic Foresight Report

The foresight exercise also used publications and projects of the European spatial planning observatory network (**ESPON**) for instance on demographic developments in rural areas.

As part of international reference material, a variety of relevant **OECD** reports have been taken into account in developing the Long-term Vision. Prominent amongst these have been the 2018 publication 'Principles on Rural Policy'[84,] and the subsequent 2020 policy document 'Rural Well Being: Geography of opportunities'[85]. Both these reports include policy recommendations taking megatrends into account. These policy documents are closely aligned with the EU approach, advocating an integrated place-based approach to rural policy, which takes appropriate account of scale, holistic policy and investment strategies and the full range of stakeholders, addresses economic, environmental and social aspects, and recognises the diversity and specificity of each rural territory.

[83] European Commission, *Charting the course towards a more resilient Europe*, 2020 Strategic Foresight Report, 2020.

[84] OECD, *Principles on Rural Policy*, 2019. https://one.oecd.org/document/CFE/RDPC/MIN(2019)4/en/pdf

[85] OECD, *Rural Well being: geography of opportunities*, OECD, 2020. http://www.oecd.org/regional/rural-development/rural-well-being-d25cef80-en.htm

5.2. ENRD/TG – JRC: SCENARIOS FOR RURAL AREAS

5.2.1. Participatory approach

Scenario building is a well-established foresight method. It allows to identify the key drivers of change and to develop a systemic understanding of the changing conditions and their potential impacts. Drawing alternative futures can inform the development of a shared vision.

Several past and running research projects funded by the EU through the EU Framework Programme for Research and Innovation (e.g. FP7, Horizon 2020) dealing with rural areas include a foresight component and sometimes the development of future scenarios (see next section). They are often focussing on specific aspects of rural areas, such as agriculture and food, transport or digitalisation. The scenarios developed in this exercise aim at complementing such sectoral/thematic scenarios with a more general view on the possible future development of rural areas. Their objective is not to reflect the existing and future wide diversity of EU rural areas, rather they focus on issues of mutual interest in an EU perspective.

The scenarios were developed with members of the ENRD Thematic Group on the Long term Vision for rural areas.[86] Three online meetings were organised between September and December 2020. Participants identified drivers of change and ranked them according to importance (Which drivers will have the most impact on rural areas?) and uncertainty (Which are the drivers for which we know least which direction they will take?). The aim was to identify the two most important and uncertain drivers to so as to form the axes of the scenario matrix, i.e. make up the scenario logic. The last workshops were dedicated to further developing the four scenarios, including titles and keywords.

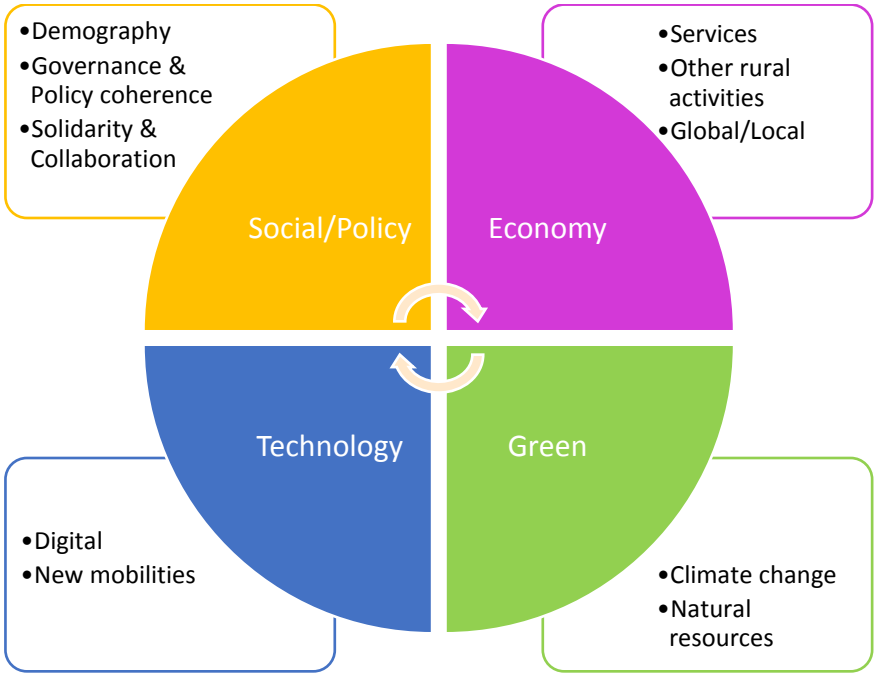
On this basis, JRC developed scenario narratives and presented them in an additional meeting in January 2021, providing an opportunity for further feedback from the Thematic Group members. The JRC presented the final scenarios during an opening session of the "Rural Vision Week" organised by the ENRD in March 2021.

5.2.2. Drivers of change for EU rural areas

Drivers of change are internal or external pressures or factors that cause change to a system. They are often grouped according to social, technological, economic, environmental and climate-related, or policy-linked dimensions (STEEP). Based on this classification, Figure 66 summarises the Top-10 drivers selected through a voting process the ENRD-TG as the most impactful and uncertain for the future development of rural areas.

[86] 'Meeting highlights' of the different Thematic Group meetings can be found here: ENRD, *Long Term Rural Vision*. https://enrd.ec.europa.eu/enrd-thematic-work/long-term-rural-vision_en

Figure 66 Top-10 drivers shaping rural areas for 2040- A selection by ENRD-TG



In addition to their nature (policy-related, socio-economic, green, technological), the identified drivers are further specified below according to the ENRD-TG votes on their estimated importance and uncertainty.

Multi-level governance and **demography** came out as the drivers that were at the same time the most important and the most uncertain.

Multilevel governance: The driver describes the way policies are developed and implemented in terms of participation of different types of actors (public and private) through formal and informal means.[87]

Coherence of rural-related policies – This requirement came out strong amongst policy drivers, including a reference to rural proofing.

Solidarity and collaboration – This driver relates to the cohesion within rural society and its capacity to deal with inequalities. It is also linked to the resilience of rural communities.

For the purpose of the scenario exercise, coherence and collaboration were considered together with multi-level governance (coordination versus low policy coherence).

Rural demography: The driver describes the demographic development in rural areas in terms of population numbers.

In the context of broad demographic changes in Europe – which indicate depopulation after 2040 and an aging society in rural areas – a more granular level shows a much more nuanced situation with different pathways of socio-economic development. The ESPON ESCAPE project indicates

[87] Larrea M., Estensoro M., Pertoldi M., *Multilevel governance for Smart Specialisation: basic pillars for its construction*, Publications Office of the European Union, Luxembourg, 2019. https://s3platform.jrc.ec.europa.eu/documents/20182/322704/Multilevel+governance+for+Smart+Specialisation+basic+pillars+for+its+construction/5598ea34-9340-40aa-8730-cd2962fbd9f8

that across the EU 59% of predominantly rural or intermediate NUTS-3 regions are shrinking (covering almost 40% of the area of the EU and almost one third of its population), while 41% experience growth[88]. Similarly, with respect to aging, the JRC report on Demographic Landscape of EU territories shows that towards 2050, the share of elderly in rural (30%), town (29%) and urban (27%) populations will be converging (against 19%, 17% and 15% respectively in 2020)[89]. Both reports point to the impact of in- and out-migration as a potential game changer. Taking the notion of expanding and shrinking rural areas in the scenario logic allows to explore this dimension and imagine what factors could be influencing these processes in the future, either in a positive or negative way.

Climate change policies – Climate change is expected to increase global average temperatures by at least 1.5 °C above pre-industrial levels by 2040[90] with severe impacts[91]. Climate change came out as an impactful megatrend, however with less uncertainty than governance and demography. The driver refers to the wide-range of EU policies put in place to mitigate and adapt to climate change while sustaining the transition towards circular and eco-system based approaches. In this respect, the role of research and innovation also matters, including for rural areas.

Availability and quality of natural resources –The global demand for material resources is expected to accelerate, after a ten-fold increase since 1900, it is set to double between 2010 and 2030[92]. At the same time the quality of natural resources is deteriorating (e.g. global wildlife populations declined by 68% over the last 40 years[93], soil degradation is widespread and diverse in the EU[94]). The driver refers to the availability and quality of natural resources in the EU, with a particular focus on bioeconomy related natural resources including biodiversity, as well as ecosystems, and their management.

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[88] ESPON, *European Shrinking Rural Areas - Challenges, Actions and Perspectives for Territorial Governance,* (ESCAPE) Main Final report, 2020. https://www.espon.eu/sites/default/files/attachments/ESPON%20ESCAPE%20Main%20Final%20Report.pdf

[89] Aurambout J.P., et al., *Demographic landscape of EU territories*, 2021.

[90] IPCC, *Special report. Global Warming of 1.5 ºC*, 2018. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

[91] Feyen L., et al. (editors), *Climate change impacts and adaptation in Europe*, JRC PESETA IV final report, Publications Office of the European Union, Luxembourg, 2020.

[92] EEA, *Global megatrends - Intensified global competition - for resources (GMT 7)*, 2015. https://www.eea.europa.eu/soer/2015/global/competition

[93] WWF, *Living Planet Report 2020 - Bending the curve of biodiversity loss*, Almond, R.E.A., Grooten M. and Petersen, T. (Eds). WWF, Switzerland, 2020.

[94] EEA, *The European environment — state and outlook 2020 - Knowledge for transition to a sustainable Europe*, 2020. https://www.eea.europa.eu/publications/soer-2020

Digitalisation in rural areas – The lack of access to digital infrastructure is a limiting factor for the rural population and rural economic actors.[95] The driver refers to connectivity and the development of digital infrastructure in rural areas, in particular reliable and fast broadband.

New forms of transport & mobility – Transport and mobility ensure the connection of rural areas to other rural areas and to urban centres for both people and goods. The driver refers to the future development of innovative transport modalities in rural areas, e.g. access to quality public transport, new transport technologies. [96]

Availability and quality of public and private services – The availability and quality of services such as education, healthcare, banking or retail are important socio-economic elements contributing to the quality of life. Lack of access to services is often mentioned as an inhibiting factor for rural areas.[97] The driver summarised in Figure 66 refers to the "if and how" of the provision of services to the rural population, both public and private, and their quality.

Other economic activities, in particular new forms of **rural businesses** and **structure of farming sector** – As part of economic activities, agriculture[98] represents an important sector in rural areas, influencing land use, environmental quality, and employment and economic opportunities, being an important part of the **bioeconomy**[99]. The future structure of the **agri-food** sector – continued consolidation or a more diverse structure, as well as more sustainable food systems will have an impact on many aspects of life in rural areas. The explicit reference to "new types of businesses models" highlights the importance of innovation.

Globalisation – understood as the degree of global economic integration. The future development of global trade and the increasing economic relevance of the emerging economies in the global south and east will influence the economies of rural areas. While growing markets and a global outlook might provide opportunities, competitiveness will be an issue[100]. Geopolitical tensions, global supply chain disruptions, and changes in consumer preferences might lead to a decrease in globalisation. Shorter or more **local** supply chains can offer opportunities.

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[95] SHERPA, *Discussion paper Long-term vision for rural areas; Draft Position paper Long-term vision for rural areas, Contribution from SHERPA Science-Society-Policy platforms*, 2020.

[96] Future Today Institute, *Tech Trends report 2020*, 13the edition, 2020.

European Commission, *Smart Sustainable Mobility-Targeted scenario N°16*, Glimpses of the future from the BOHEMIA study, 2018. https://ec.europa.eu/info/sites/info/files/smart-sustainable-mobility-targeted-scenario-16_2018_en.pdf

[97] SHERPA, *Discussion paper Long-term vision for rural areas*, 2020.

[98] Bock, A.K., Krzysztofowicz, *M. et al. Farmers of the Future*, Publications Office of the European Union, Luxembourg, 2020. doi:10.2760/680650, JRC122308

[99] Fritsche, U., et al., *Future transitions for the Bioeconomy towards Sustainable Development and a Climate-Neutral Economy - Foresight Scenarios for the EU bioeconomy in 2050*, Borzacchiello, M.T., Stoermer, E. and Avraamides, M. (eds.), Publications Office of the European Union, Luxembourg, 2021.

[100] OECD, *Rural 3.0 People-centred rural policy*, OECD Highlights, 2019. https://www.oecd.org/rural/rural-development-conference/documents/Rural-3.0-Policy-Highlights.pdf

5.2.3. Scenarios

The scenarios describe possible futures of rural areas for 2040, but they are not, in themselves, the vision. Furthermore, the scenarios cannot as such fully reflect the diversity of rural areas, instead their narratives describe possible developments in a generalised way, with a focus on issues of mutual interest in an EU perspective. Scenarios display images and narratives of "**ruralities**" with both positive and negative aspects. They illustrate contrasted projections for 2040 through the prism of demography and governance, which the ENRD-TG selected as the most impactful and uncertain drivers.

These two drivers form the axes for the scenario logic.

Vertical axis = rural **demography**, with extremes defined as:

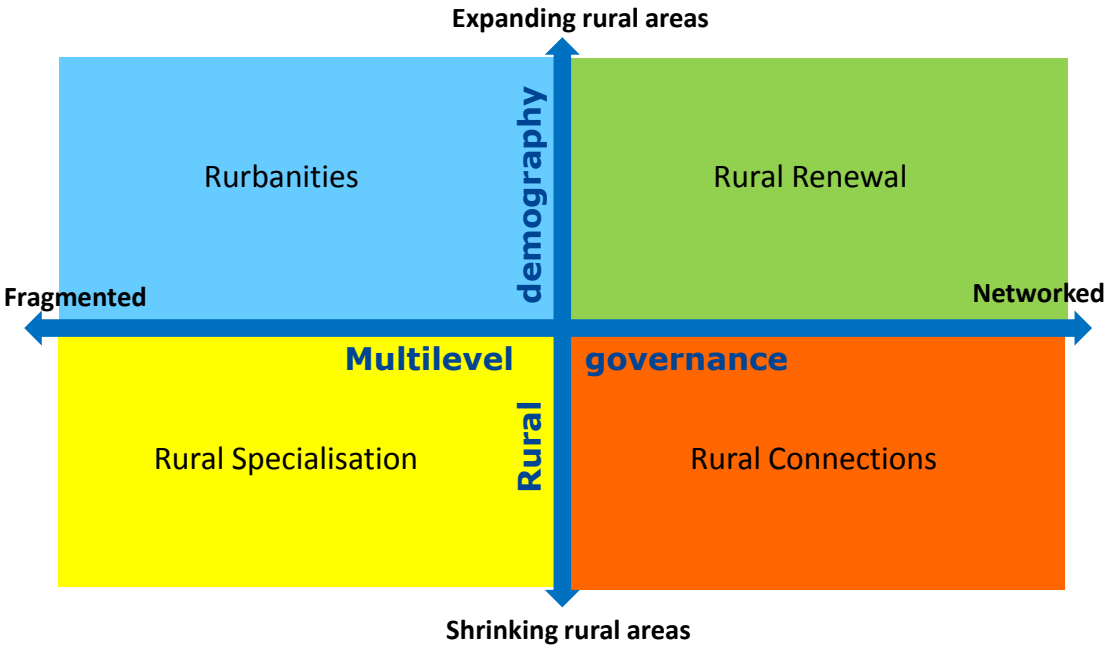
- 'expanding rural areas' – the rural population increases due to in-migration primarily from urban centres, and reduced out-migration.
- 'shrinking rural areas' – The rural population declines due to continued out-migration to urban centres.

Horizontal axis= multilevel **governance**, with extremes as:

- 'fragmented multilevel governance' – limited coordination and collaboration between different types of actors, resulting in low policy coherence. Poor direct participation of citizens in decision-making.
- 'networked multilevel governance' – dominance of well-coordinated, collaborative and often collective decision making processes, with a strong direct citizen participation.

While contrasts are somewhat exacerbated for illustrative purposes, the four scenarios sketched out in Figure 67 might give an idea about possible futures for different rural areas.

Figure 67 Four illustrative scenarios for EU rural areas by 2040



The top half of the figure depicts rural areas retaining young people and attracting new inhabitants (e.g. renewal, rurbanities), while the part below represents areas with shrinking population, but nevertheless potential (e.g. rural specialisation, rural connections). The right-hand

side illustrates the benefits of networked multi-level governance (e.g. connections, renewal), while the latter is more fragmented on the left-hand side, with less synergies (e.g. rurbanities and specialisation). The scenarios also address rural-urban interdependencies.

Table 13 Overview of the foresight scenarios summarises the main features of the scenarios while the next section provides more detailed narratives.

Table 13 Overview of the foresight scenarios

	Rurbanities	**Rural renewal**	**Rural connections**	**Rural specialisation**
Multilevel governance	Common objectives but uncoordinated initiatives, lack of integration of investments	Closely networked and integrated transition management	Strong coordination and collaboration at local/regional level, including cross-border	Competing, disconnected initiatives for specific interests
Rural demography	Migration to rural areas for higher quality of life	Migration to rural areas for a change in lifestyle, counter-urbanisation movement	Migration from rural areas to urban economic centres, convergence in rural hubs	Migration from rural areas to urban economic centres, depopulation of rural areas
Diversity of rural economy	Very diverse, opportunities for entrepreneurs and SMEs	Very diverse, circular and local, short supply chains	Importance of agriculture as part of a circular bioeconomy	Specialised, consolidated large-scale bioeconomy
Rural-urban relationships	Close links and competition	Rural-rural relationships gain importance	Rural-rural-urban networks, recognition of interdependence	Urban-centric perspective
Access to public services	Complex regulatory and e-service systems, strong fragmentation	Close, frequent interaction and integration	Lean services, fully digitalised	Seamless, customer-oriented online service delivery
Digital Infrastructure and services	Well developed, access to higher quality and services more costly	Well developed, community-owned local networks	Well developed, priority for managed transition of rural areas	Well-developed to enable economic activities
Civic engagement	Private-interest-driven engagement,	Deliberative democracy, collective	Liquid, deliberative	Disengaged citizens

	volatile and temporary pressure groups	decision-making	democracy	
Rural communities	Individualised society, local-oriented communities, weak social cohesion	Strong community spirit, consciously building and maintaining local communities	Strong local community spirit and bottom-up do-it-yourself engagement	Largely urban society, dispersed, unorganised rural population
Land management and agriculture	Multifunctional land-use focused on production and living functions (rural sprawl). Diverse agriculture but increased tensions.	Multifunctional land-use focused on living and ecological functions, collaborative governance. Smaller scale farming, diversified with focus on agro-ecology.	Specialised land use – compromise between regional and local needs. Large scale agriculture plus few smaller local initiatives	Specialised land use, zoned and optimised for benefits of the city. Large scale farming focused on sustainable intensification.
Climate change policies	Reactive and technology-driven, using economic incentives and voluntary approaches. Slow sustainability transition	Proactive with regulatory approaches and focus on behaviour and lifestyle changes	Proactive combining focus on environmental standards, local, short supply chains, encouraging sufficiency with climate diplomacy	Proactive with focus on few large corporate actors (regulations, economic incentives), large-scale technological interventions
Transport & Mobility	Primarily road transport, advanced individual transport prevails	Distributed and varied mobility networks, community-owned	Collaborative and collective approaches to mobility	Centralised, geared towards needs of industry and urban tourists

5.2.3.1. Rurbanities

Expanding rural areas – Fragmented multilevel governance

The EU in 2040

After the worst years of the COVID-19 pandemic in the early 2020ies, a sluggish recovery increased frictions in the EU. Citizens were keen on going back to their pre-COVID-19 pandemic lifestyles, including mobility and consumption patterns.

To rebound to pre-crisis GDP growth levels and strengthen global competitiveness compared to the faster growth of emerging economies, in particular in Asia, emphasis was put on R&I and large funding programmes, launched both at EU and national levels. Public-private partnerships were encouraged, in the context of creating an overall business friendly environment, which would favour **employment** and **economic growth** in all areas.

Governance

In 2040, the authorities at EU and national levels see a need to provide the society with their visions and strategies to show strategic leadership, yet there is limited coordination between them. This is reflected also at regional and local levels, with limited efforts to coordinate across sectorial policy fields and across territories. Rural proofing of national policies is not implemented. Instead, regions and their municipalities compete for EU and national funding and to attract entrepreneurs, industry and investments, also from third countries. The proliferation and fragmentation of programmes, strategic guidance documents and instruments make it difficult to create integrated and systemic approaches at local level.

Various groups exert influence on diverging interests. The post-COVID economic crisis increased economic inequalities and eroded the social cohesion and solidarity in the EU. Apart from sporadic initiatives via citizen assemblies on controversial policy questions, there is limited direct structured involvement of citizens in regional or national policymaking, and citizens are not pushing for it. Thanks to social media platforms, it is very easy and common to temporarily form pressure groups on major as well as very specific issues, and - often successfully - influence policies in this way.

People

The years 2020 and 2021 saw a substantial increase in teleworking due to the COVID-19 pandemic. This opened the possibility for many people to decide on their place of living independently from the location of their working place or clients. Looking for a higher quality of life in terms of lower costs, less pollution and more security, people turned to rural areas. The first to move were those who had the possibility to work remotely. As digital infrastructure improved and virtual reality applications substituted for physical presence, more people followed in the next decade. Many micro rural areas saw their population numbers increase in a dynamic and noticeable way. Favourable conditions for businesses contributed to the creation of jobs and kept particularly young people from leaving; migrants from across the EU and third countries added to the number of people wanting to live in attractive rural environments.

As social cohesion declined, in 2040, the diverse population in rural areas has a little developed sense for local community. A part of the attraction of rural areas was more private space and an

escape from the perceived surveillance and constraints of city life (housing, landscape, urban access regulations).

Wanting to keep the individualised urban lifestyle in the comfort of the rural areas, people care primarily for their own family and friends. Cooperation and collaborations tend to be interest-driven and volatile and there is limited trust in others beyond one's closest social circle.

A 'not-in-my-backyard' attitude is widespread and contributes to tensions among residents, and between residents and policymakers. While newcomers add to rural life with new ideas and initiatives, tensions also emerge when interests and attitudes of newcomers differ too strongly from those of the initial rural population.

In addition, gentrification, increasing land and house prices in combination with growing inequalities tend to lead to the creation of closed communities and "gated villages", followed by segmentation of services and infrastructures.

In 2040, rural areas have close links with several urban centres – many rural residents have personal and work relations in the cities, many of the rural companies' customers are located in urban centres. As some rural areas have become more prosperous and successfully compete for budget, infrastructure, companies' headquarters and production sites, urban centres start feeling the competition.

Rural areas which are able to attract the new population and business activity are those that have specific amenities (natural or other – coastal, cultural etc.). This has increased the divergence between the most prosperous and other rural areas. The more remote and less attractive areas have felt the spill-over effects. Alongside, a more radical counter-urban movement promoted eco-villages in the more remote areas.

Infrastructure

Rural areas in 2040 benefit from a diversity of economic activities. The demand for services and goods provides for job opportunities. Favourable conditions in terms of financing, tax reductions and access to facilities attracted entrepreneurs and small businesses. In 2040, due to the increasing demand and economies of scale, digital infrastructure is in place to accommodate the needs of citizens and businesses from leisure, shopping, and work to automation and production. The widespread availability of the latest broadband and telecommunication infrastructure permits access for everyone, but higher quality or more specialised services can be accessed at a higher price only by those who are willing and able to pay more.

Road transport plays a large role, and citizens favour individual over public transport for its immediate availability and independence. Advanced transport technology is readily taken up - autonomous cars allow a relaxed and fuel-efficient travel outside denser areas, drones deliver services and goods to smaller villages from e.g. the local manufacturing supplier or distribution centre, etc. Public transport infrastructure, accordingly, is not very well developed.

Administrative e-services are the norm, but it is difficult to find one's way among the different local, regional and national government agencies and responsibilities. Systems based on Artificial Intelligence (AI) and digital personal assistants help people navigate the complex regulatory and service systems including social ones. Calls for a better coordination are erupting once in a while, but citizens largely are used to the status quo. E-healthcare is accepted, digital health assistants and monitoring devices support citizens in managing their health and allow seamless medical support, remotely or in a clinic in one of the rural centres.

Rural centres provide the needed local infrastructures from shops, leisure facilities, to bars and restaurants. Online retail and delivery services complement the offer. Smaller villages have their specialised restaurants or other leisure facilities, attracting customers from elsewhere.

Education in 2040 is highly individualised, and follows a hybrid online/physical presence concept. Project-dependent online courses can be booked from any public school in the region, but also from private providers against a fee. Facilities for face-to-face lessons are located in the rural centres.

Land use, agriculture, environment and climate change

With more people moving to rural areas, the rural sprawl with more land used for housing and infrastructure becomes an issue. In many places the expansion of the settlement and commercial areas did not take place in a structured way, resulting in an inefficient land use and difficulties with the existing infrastructure. As the built-up area increases, at the expense of fertile land at the fringes of rural towns and villages, forests, protected areas and nature reserves are increasingly under pressure due to competing commercial or leisure interests.

A diverse farming structure caters for the demand and industry needs. However, the perceived nuisance of noise, water pollution and smell and increasing conflicts have driven most of agriculture further away. Smaller farm businesses respond to local consumer demands for sustainable or specialised products and often sell directly to consumers, and provide educational and social services (i.e. social farming). Their business model focuses as much on production (mostly based on organic, regenerative practices) as on other services it provides – care and therapy; education; entertainment. Larger scale production of food and biomaterials in more remote areas is geared towards national and global markets and the regional biorefineries.

Although a reality with tangible impacts, climate change policy is largely reactive. Most of the policy instruments are economic (investment, loans and grants, trading schemes) and rely on voluntary schemes, with a strong emphasis on technological innovations to adapt and reduce net emissions. The policy focus is on businesses to increase material and energy efficiency, including use of alternative products (e.g. substituting concrete for construction) and closing resource loops. Energy and material consumption is also addressed through economic incentives (subsidies for electric cars and efficiency improvements, gamification, personal carbon trading). The advancement in green and solar technology for renewable energy generation is a major issue for this energy hungry society, as is the advancement of carbon capture and storage technology to tackle climate change. The bioeconomy is developing and new products and technologies are readily taken up if they are economically and functionally competitive.

Businesses advance the environmental and climate performance of their products and services in as far as they perceive business opportunities. Working in a patchwork of different national regulations, and regional variations of implementations, the industry pushes for harmonised rules and standards. While the EU commitments and the diversity of frameworks and approaches in the different regions and the competition allows the development of different solutions and tailored applications, the lack of coordination and sharing of experiences between regional and national levels and policy sectors potentially hinders the use of synergies and slows down the sustainability transition.

5.2.3.2. Rural renewal

Expanding rural areas – Networked multilevel governance

The EU in 2040

The EU in 2040 focuses much of its efforts on the green transition on the way to the goal of climate neutrality by 2050. The Green Deal and NextGenerationEU funds have redirected much of the investments towards green and digital transitions and the Conference on the Future of Europe has paved the way to support governance structures that are more networked and cooperative to quickly align the headline goals with implementation and monitoring. Two decades of subdued economic growth have also refocused the expectations from GDP growth to wellbeing and more dematerialisation of consumption with the degrowth movement gaining strength.

A growing geopolitical instability and the increasing role of the global east and south led to the EU focusing more inwards, limiting its efforts on global issues to those where it leads through example: consistent green diplomacy, strengthening of democracy, international standards. The EU is one of the main actors in international trade in services, which now surpass the trade in goods.

Governance

The coordination of the green transition is one of the overarching aims of the governance systems. The steady growth of deliberative democracy, citizen engagement and co-creation, reinforced by trends towards more transparency and accountability, have led to an open government where public institutions are centres of collective decision-making. Accordingly, the distinctions between governmental and non-governmental actors blur.

Multi-level governance consists of various institutions with overlapping goals and jurisdictions at different geographical and functional levels working together to achieve societal goals, which are set qualitatively in the context of the EU (or globally in some cases) and operationalised at other scales. Digital technologies, such as blockchain and telepresence allow almost immediate access to relevant information and participation in decision-making at all levels. Internet of Things (IoT) and Artificial Intelligence (AI) systems perform preliminary analysis of the processes in the physical world and provide the evidence basis for decision-making.

The combination of large scale EU funds, local taxes (and related public procurement expenditures) as well as concerted private and consumption spending support the transition.

More balanced and integral territorial development strategies led to a situation where rural-rural partnerships have become at least as important as those with urban areas in terms of innovation networks, people and material flows. The cities initiate the links to rural areas to support their own green transition plans.

People

In 2040, a focus on more sustainable living and the disadvantages of high-density cities have strengthened the counter-urbanisation movement with increasing numbers of people moving to the rural areas.

In the 2020s these were either determined professionals, very often with families, intent on starting more sustainable and slower lifestyles or retired people, leveraging their urban property values to move to a more pleasant environment. The post-COVID popularity of remote work as well as the trend of maintaining several different paid activities at the same time and easier access to digitised services (education, healthcare) has removed some of the barriers and increased the speed of immigration from cities. In time, increased opportunities in green jobs, sustainable entrepreneurship and growth of the bioeconomy created next waves of newcomers. Multi-local working and living gained traction.

At the same time, the policy and investment support for green transition has also reshaped rural planning. The new waves of newcomers would find themselves increasingly restrained in terms of building permits, and types of activity with the aim to achieve the goals of sustainability. In 2040, the diversity of the rural society is much higher, but there is a permanent conscious effort in building and maintaining communities.

Social economy organisations are well equipped to revive rural areas, given that they are active in human-centred activities, they have a local anchorage and a long existence in rural areas, and they are participatory, contributing to empowering citizens and communities. They provide services on a local scale in a wide range of areas that can increase residential attractiveness, cohesion and retain local job opportunities, such as local trade, tourism, culture, care and the circular economy.

Infrastructure

Nature-based solutions, small-scale circular economy and sustainable pathways were often easier to implement in the villages and smaller towns than cities, due to access to natural resources and lower population density. In some places, new settlements have been created from scratch such as "regenerative eco-villages" to cater for particular niches (active retired, creative and arts, mountain lovers). Rural areas have become a space of experimentation with various sustainable living, learning and working approaches.

The growing population and the direction of green transition offered a chance for a second opportunity to plan climate-neutral net-zero settlements (waste, water, energy). A more circular economy, shorter supply chains together with development of local micro-factories and small-scale bio-refineries have also transformed the infrastructure needs. Local, community-based, high-quality bioeconomy facilities led to positive effects on rural employment and a reduction in the gap between rural and urban areas.

For local travel, the new spatial planning has limited the need for private car ownership and encouraged community-owned shared alternatives for personal and group mobility (smart mobility pods, hyperscooters, and autonomous robo-vehicles). For longer journeys, autonomous vehicles can be rented. The energy system will be more diversified, with multiple sources of generating clean energy and various storage facilities.

The increased rural population has stimulated the offer of local services in terms of catering and hospitality, customer and leisure services greatly improving the quality of life and further consolidating the community. The retail sector transformed from large supermarkets to smaller shops, as the owners usually connect it with other services and activities they provide, retail activities are also run by micro-factories and 3D printing shops. At the same time, people tend to use various networks for repair, reuse and renting, limiting the needs for purchasing new products.

As public institutions play a large role in the transition management, citizen's interactions with public services are very frequent. Most of the times, this takes place through interactions in wider communities and associations – public institutions are directly involved in most of the initiatives and communities in the area. Procedural and administrative arrangements are conducted digitally by citizens connecting their personal data vault with the system of the service provider where algorithms outline contracts satisfactory to both sides. The contracts are then recorded in a public database.

The role of digitalisation has been mainly to support the transition and community building. Communities own, operate and govern the local wireless mesh networks using open-source and commons software, connected to an ecosystem of other local and global networks.

Land use, agriculture, environment, climate change

Along with developing local circular economy and regenerative approaches, land has become a multifunctional resource focused on the regional scale. The available resources are managed in collaborative governance to create synergies between formerly competing uses of land – combining food, energy, tourism and other demands.

Smaller scale farming is dominant with farm networks following regenerative practices, permaculture and agroforestry, often in community-supported farming models. To scale-up, networks of such farms work together, sharing technologies and ecological practices. Participation in farming activities, whether commercial or for self-provisioning, is one of the multiple jobs for most of the residents.

Climate change adaptation and mitigation measures are focused on behavioural and lifestyle changes (strong reduction of consumption and energy use), as well regulatory (better rural planning, a complex system of permits, climate audits) and collaborative, community solutions. Integrated strategies and climate budgeting make planning easier. Social economy organisations and social enterprises are centred around impact on the community rather than profit maximisation, adopting a stewardship role to resources and encouraging sufficiency.

5.2.3.3. Rural connections

Shrinking rural areas – Networked multilevel governance

The EU in 2040

In 2040, territorial development is shaped by responding to **economic** and **environmental** crises. After several years of focussing on the post-COVID economic recovery, the level of debt of Member States required large restructuring of government spending and cutting back on social policies and public services. Increasing climate change impacts and a continuing degradation of the environment require communities to focus on **resilience** and crisis response. While the EU with its favourable geographic location still fares comparatively well, impacts in other parts of the world cause more frequent harvest failures, resulting in trade interruptions and risks of supply shortages in the EU.

Governance

The successful overcoming of the COVID-19 pandemic and the related economic difficulties strengthened integration at EU level. Regional governments, being closer to the citizens, gained political weight at EU level.

The cuts in public service were partly compensated by increased digitalisation, and use of algorithmic, AI-based decision-making.

Digital applications facilitate citizen participation through virtual communication channels, including across national borders where relevant. In parallel, digital approaches helped strengthening collaboration across all levels and at geographical scale.

The "liquid democracy" system, combining elements of representative and direct democracy, allows selecting representatives at any moment, for a broad or a narrow range of issues. Most people conduct these duties alongside other activities. While political decision-making has become more transparent and deliberative, and decisions can count on broad support, deliberation and compromising between different competing interests takes time and can lead to a slowing-down in decision-making.

With the need to face the climate and environmental challenges and to secure supply of food and fibres, the awareness of the importance of rural areas for these fundamental services increased. In line with a strongly networked policy approach and citizen participation in the processes, integrated local and regional strategies were developed, also across national borders.

The shrinking rural population, though not perceived as a positive development, provided the opportunity to effectively use rural spaces for the benefit of all citizens. Participatory structures were put in place to facilitate a bottom-up strategy development as well as tailored local implementation. Though being a time-intensive process, it resulted in commonly agreed goals and principles for the necessary transformative resilience. Based on a systems approach, local and regional strategies are developed, coordinated, linked to and coordinated with other European regions. The sharing of experiences contributes to a common learning process and respective improvements.

People

After a temporary interest in living in rural areas during and right after the COVID-19 pandemic at the beginning of the 2020ies, urban areas quickly regained their attractiveness as the centres of gravity of economic activities, innovation, opportunities and cultural life. Due to channelling most of the investment in greening the cities and improving the quality of life for its citizens, people continued moving from rural areas to urban centres, resulting in a continuous shrinking and ageing of the rural population. As population numbers and economic activity decline, local budgets decrease and the sovereign debt burden decreases national budgets. It becomes increasingly difficult to maintain smaller villages and hamlets so people start to concentrate around rural hubs.[101]

While it was a difficult choice for some to leave villages to nature or to convert them into tourist locations, the rural hubs were attractive for newcomers to rural areas as the necessary services including health services were to a large extent available, as well as some jobs in local businesses linked to agriculture and the bioeconomy. In 2040, population numbers in rural areas are stabilised at a low level, with a mix of rural and neo-rural retirees, farmers, entrepreneurs, employees and their families.

Within rural hubs, inhabitants form a tightly knit community to be able to organise themselves in political processes but also to step in where public and private services leave a gap. With participatory structures in place (local councils, legal requirements to involve citizens via citizen panels at regional and local level, also EU level, topic-related local working groups), inhabitants of the rural hubs are actively involved in shaping their community and deploy innovative solutions. Volunteering and time banks, in particular building on the expertise and time of active retirees cater for unmet needs and support the bottom-up organisation of e.g. mobility services, cultural events, social services. A decentralised organisation structure provides for a certain autonomy of the rural hubs in terms of e.g. energy supply, and local decision-making on public budget use.

Rural hubs establish close links with other hubs and urban centres, creating a network that facilitates joint actions, efficient use of infrastructures, shared learning and the creation of synergies. The interdependence of rural and urban regions is recognised and provides the basis for a constructive and trustful cooperation. The fusion of municipalities, following the decline of rural population numbers, allowed for a lean restructuring of administrations.

Infrastructure

Recognising the trend of a shrinking rural population early on, a strategy was jointly developed to manage and facilitate the transition. As part of the rural strategy, priority has been given to digital infrastructure, with the view to facilitate connection and integration, the provision of e-services (for e.g. administration, health, education, finance, culture), and to enable the digitalisation of agriculture and the bioeconomy (e.g. precision farming, automation). A well-maintained road and rail system ensures efficient transport of goods to the cities. Public transport is provided through local on-demand mobility services, organised and co-funded by the rural inhabitants. Private initiatives such as ride-sharing complement the offer.

[101] For the purpose of this foresight exercise, a rural hub is meant as a spatial entity gathering rural inhabitants or communities, exchanging and networking according to interest.

In 2040 digitalisation of public services is the norm. Be it a new identity card or any other kind of administrative step, all can be done online and via virtual appointments. Healthcare, in particular monitoring of patients, is carried out remotely. E-health applications are widespread complemented by face-to-face conversations and examinations. The rural hubs, depending on their size, function as a rural health centre, and several hubs that are in the vicinity, organise their health services in a collaborative way.

Rural hubs also collaborate for education services. Following the COVID-19 pandemic, online schooling and tertiary education has been further developed and is combined with physical presence in schooling facilities. These are only located in larger rural hubs, and pupils from other hubs need to commute. Higher education institutions are only located in urban centres.

Rural hubs with their products are linked to the global markets, but overall trade is limited due to sustainability considerations and the preference for domestic products. With a strong re-use and repair culture, rural hubs are part of the circular economy. Maker spaces allow interaction, take-up, adaptation and further development of technologies. The 3D-printing technology enables the on-time local production of many items, reducing transport needs. All these elements support the sense of autonomy, and the Do-It-Yourself approach of the hub community.

Land use, agriculture, environment and climate change

The consolidation trend in agriculture continued and in 2040 large farms determine the sector, geared towards sustainable intensification and complying with stricter environmental standards. Small-scale agriculture has a minor share, but an important role in providing food for self-consumption and the local population. Remote areas and high nature value areas are protected, dedicated to ecosystem and carbon capture services. Scenic locations form part of a network of landscape care arrangements through extensive agriculture and see a temporary population increase in holiday seasons.

As the interest in healthier diets grew with the ageing of the population and a higher share of diet-related diseases, this results in a push towards including also environmental criteria for food products through e.g. price incentives, clear labelling and easy-access information. Agriculture in the EU had to adapt and this, in addition to stricter environmental standards contributed to a reduction of its environmental impact.

With renewed decisiveness and strong support from its citizens the EU pushes for stronger international goals and collaborations, based on renewed commitment and implementation of comprehensive environmental standards and climate change adaptation and mitigation measures at home. The strategies adopted by particular rural hubs focus on maintaining an important share of local, short supply chains to cover consumption. Social solutions, such as market gardens, micro-grids and community solar gardens as well as pooling and sharing resources (reuse, repair, recycle) approaches are popular.

The circular bioeconomy is at the core of the efforts, relying on advanced technology (automation, biotechnologies, digitalisation). Dedicated and protected nature areas and reforestation and rewilding contribute to carbon capture and stopping a further decline of biodiversity in the EU.

5.2.3.4. Rural specialisation

Shrinking rural areas – Fragmented multilevel governance

The EU in 2040

The EU in 2040 focuses much of its efforts on recovery from three decades of low economic growth. Most of the public budget is spent on restructuring economies to benefit from the green and digital transition and to follow consumer demand to generate more economic activity, employment and economic optimism which would lead to a new rebound and more prosperity. The decades of over-promising targets have decreased further the trust in existing public institutions. Different levels of governance are increasingly competing for legitimacy, creating their own "resilience and revitalisation" strategies, programmes and tools.

The growing economic and political role of the global east and south has put high hopes of recovery in efforts to increase Europe's international competitiveness and tightening the trade ties with various international partners. At the same time, geopolitical instability and the declining role of western institutions has stalled efforts for political cooperation.

Governance

The restructuring, revival and rebound are the overarching aims of the governance systems. Actors at European, national and local levels are putting a lot of effort into the analysis of the situation and actions to be taken in their jurisdiction and areas. The fragmentation of the efforts and funding creates many frictions and incoherencies in implementation. The diffuse political responsibility makes it easy to shift the blame and carry on.

The eroding legitimacy and trust in public institutions has lowered citizens' involvement in political decisions. Increasing public sector efficiency, seamless service delivery and customer-centric approaches were considered key in regaining citizens' acceptance. The use of big data, Artificial intelligence (AI) algorithms and user-experience approaches led to a proliferation of targeted apps, social media plug-ins and automated bots which were the main way of interaction with the government.

The decision-makers are a relatively small, professionalised group supported by experts. With growing public debt, governments have to be more frugal with public money, focusing instead on public-private partnerships.

The focus is on those areas, actors and sectors where interventions will be more cost-effective, scalable and with highest success rates. Thus, much of the support goes to big cities and large "champion companies" or unicorn start-ups, which are expected to kick-start the new prosperity.

People

With declining EU rural population and aging, less economic and social opportunities for growth and minimal public support, most of the people moved to urban centres. As the process of depopulation accelerated, the breaking down of social fabric and diminishing quality of life pushed others to also re-join their families and friends who had left earlier.

The few who remain in rural areas are dispersed. These are mostly people who lacked alternatives, chose to stay or willingly wanted to live "outside the grid". Most of the other people are either commuters from urban areas – including those supervising farms and other large

energy and production facilities or seasonal workers in the recreation, health and "edutainment villages" (combing education and entertainment) providing services to tourists.

With a shrinking and unorganised rural population left, rural policy is mostly made in urban centres in function of their needs for food, natural resources, leisure etc. The cities themselves had to transform. Increased population, and societal demands for reducing environmental and climate impacts meant that the availability of food and natural resources have become a prime concern. Their strategy is to secure the availability of resources in the region, and cooperation with private companies that could supply large populations.

Infrastructure

The consolidation of land through the purchases of large corporations, investment funds and trusts, has left the practical management of the resources in the hands of private actors. These usually build large, automated facilities (farms, renewable energy installations, smart factories) or manage very large land parcels for other uses (forestry, wilderness, recreation parks).

The infrastructure tends to be centralised, connecting the cities with particular facilities. There are two parallel communication and infrastructure systems. One is mostly for tourist and recreation movements, based on fast trains leading straight to leisure and recreation centres. Another, industry-focused system for resource extraction and processing, connects facilities, cities and major ports through freight trains. Occasional other travels (maintenance workers etc.) are usually done by air transport (e.g. passenger drones).

The large renewable energy facilities (hydro, as well as solar and wind farms) are connected in a European smart grid, which optimises the supply and demand for energy.

Land use, agriculture, environment, climate change

Land tenure reforms and privatisation led to consolidation of land and specialisation of land-use. There are competing interests for land-use. The growing cities look for resources in their broad surroundings to build a regional circular economy, sustain food and energy networks and increase the wellbeing of city-dwellers. National and European institutions want to optimise land-use in their own respective scales to reach particular climate, economic and environmental goals. The corporations have a global outlook – looking for the best land for their activities. At the same time, due to lower demographic pressure, some land is abandoned in less favourable areas. This all points to the importance of land management.

As most of the activities in rural areas are large-scale, they permit considerable economies of scale, efficiency gains and quick adaptation and streamlining of production processes. Sustainable intensification in agriculture and forestry allows for increased production in a more resource-efficient way and using less environmentally harmful processes. Large, mostly automated, farms are owned by corporations with integrated food and bio-based products processing. Controlled-environment, vertical farming units – the farm factories – are developing quickly in the peripheries of the cities. Smaller farms also remain, especially in less favoured regions, for providing local food. The co-existence of various types and scales of farming needs to be addressed.

Conservation strategies focus on the preservation of specific ecosystems, creating increasing targets for the percentage of areas that are protected, as well as re-wilding of areas previously used for agriculture on less productive land.

In terms of climate mitigation and adaptation, most of the solutions focus on regulatory solutions with many different binding targets and standards set at different levels of governance (from

world-wide to local) and economic instruments focusing on large companies managing large areas of land (infrastructure investments, feed-in tariffs for renewables, loans and trading schemes). Large-scale technology-based interventions are favoured, such as massive afforestation with bioengineered trees and carbon capture technologies, restoration and adaptation of natural habitats etc… For adaptation, insurance and financial tools, such as weather derivatives, are developed. With more flexibility in land management, geoengineering ideas are gaining ground.

5.3. Insights from European research and innovatio projects

The EU research and innovation (R&I) framework programme (FP) has funded a number of projects that undertook participatory foresight activities, scenario building and vision development, hence providing relevant insights for the EU rural vision. These include four on-going projects funded under the Horizon 2020 work programme 2018-2020 through calls targeted at building modern rural policies on long-term visions and societal engagement[102]:

- RURALIZATION and POLIRURAL, that look at generational renewal in rural areas, with special attention to newcomers and new entrants into farming: most relevant outputs include literature reviews, analysis of drivers and trends and exploring the rural dreams of young people for the future;
- DESIRA that looks at the long-term socio-economic impacts of digital transformation in both rural areas and farming: relevant inputs include an analysis of trends;
- SHERPA that coordinates science-society-policy interfaces on issues of interest to rural policy makers and rural communities: relevant inputs include an overview of previous foresight analyses, a discussion paper summarising trends and a position paper synthesising the work of 21 multi-actor platforms (MAPs)[103] in 20 countries.

In addition, a number of on-going Horizon 2020 projects can bring elements of interest such as **vision papers** they developed on selected themes or in specific types of areas (e.g. RURITAGE on cultural heritage and COASTAL on land-sea interactions), **scenarios** on topics (e.g. IMAJINE on spatial justice, SALSA on small farms). Finally, some projects funded under previous EU R&I framework programmes produced results that are still relevant to inform the development of the EU rural vision because of their scope (FARO-EU) or time horizon (VOLANTE).

[102] European Commission/SEIDA, *Building modern rural policies on long-term vision and societal engagement*, Funding & tender opportunities. https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/rur-01-2018-2019;https

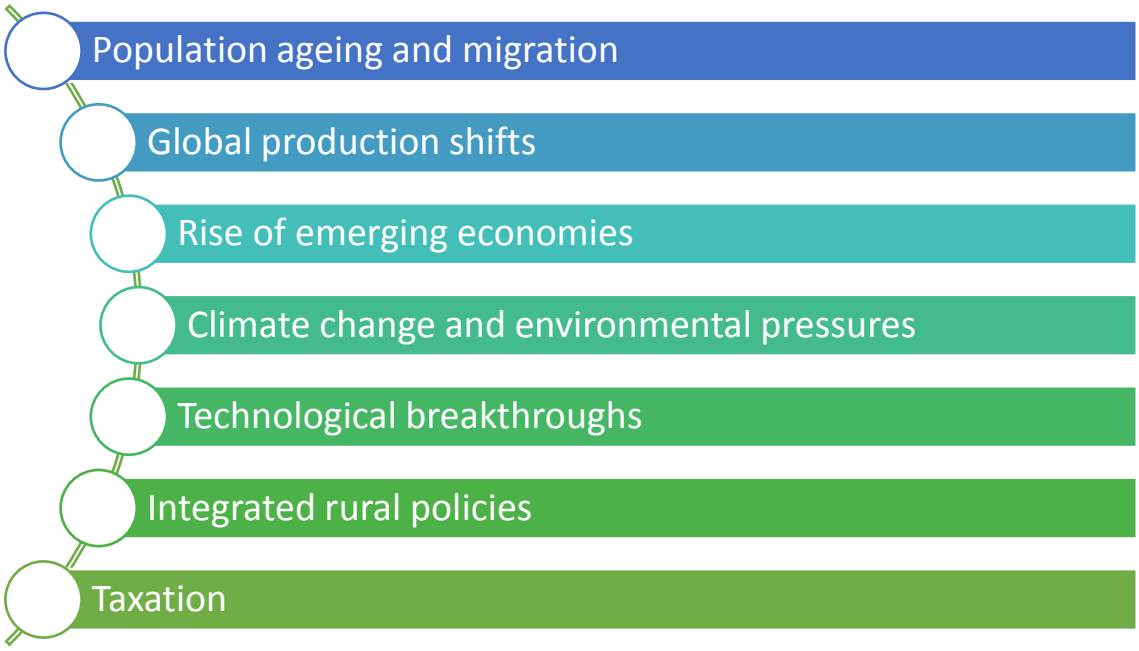
European Commission/SEIDA, *Socio-economic impacts of digitisation of agriculture and rural areas*, Funding & tender opportunities. https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/rur-02-2018

[103] SHERPA, *Multi-Actor Platforms* (MAPS). https://rural-interfaces.eu/multi-actor-platforms/

5.3.1. Drivers and trends analysis

SHERPA built an overview of previous foresight exercises[104] and summarised in a discussion paper[105] elements on trends on seven themes, shown in (Figure 68).

Figure 68 Most important trends for rural areas



Source: Sherpa

RURALIZATION extracted from the analysis of 1560 trends observations, 60 trends that are most likely to shape the future of rural areas, including 10 mega-trends, 20 trends and 30 weak signals.[106] An analysis per sector found that **unequal development and inequality** was the most frequently identified influential trend in the case of all four economic sectors (primary production, manufacturing, private services and public services), followed by **rural decline**, **migration patterns** and **ageing** for all but primary production. Other top trends affecting the primary sector included for example, **farm size, diversification vs. specialisation** of farms and practice-oriented food systems (e.g. organic farming). Other top trends affecting manufacturing were **climate change**, resource competition and infrastructure. **Digital economy** ranked high among trends affecting private services alongside several demographic trends reflecting how strongly private services depend on the population base and purchasing power. **Rural hubs** and

[104] Brunori, G., et al., *Overview of a sample of existing foresight and scenario studies carried out at EU and global levels*,SHERPA, 2020. SHERPA-Overview-foresight-document_compressed.pdf (rural-interfaces.eu)

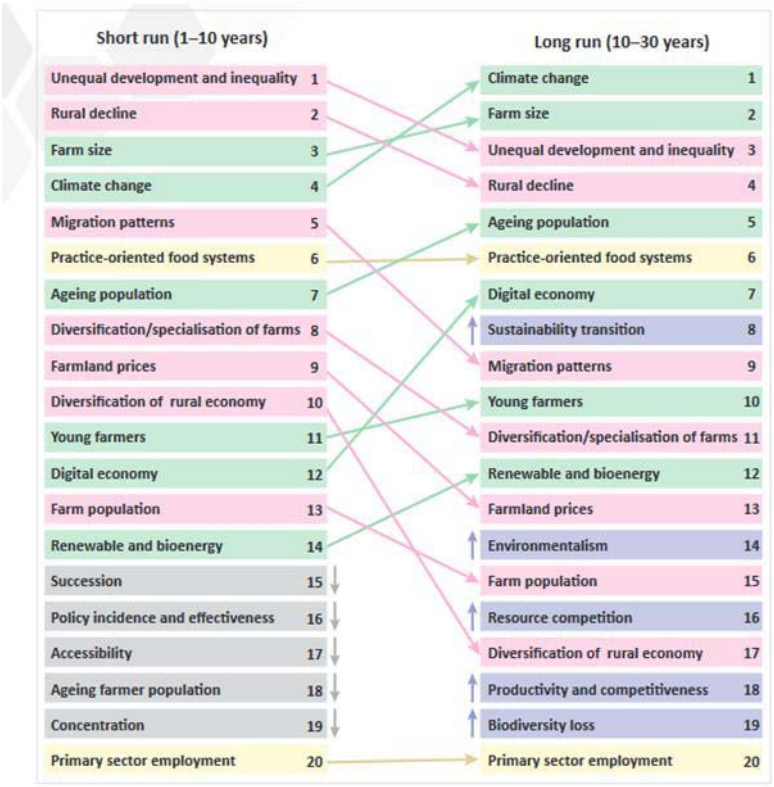
[105] Feret, S. et al., *Long-term vision for rural areas: contributions from 20 multi-actor platforms, SHERPA discussion paper*, SHERPA, 2020.

[106] Kuhmonen T., Ahlmeyer F., Dołzbłasz S., et al., *Trend analysis: summary report and trend database*, RURALIZATION - Horizon 2020, 2021.

creative economy were among the top-20 trends only for the private services sector. Trends relating to **policy and governance rank highest** in the public services sector compared to others. **Community-based action** and **accessibility** were found in the top-20 list only in the case of public services.

The project also analysed how the significance of trends evolves when looking at the short-run or the long-run (Figure 69). New trends appear in the top-20 list in the long-run: **sustainability transition, environmentalism, resource competition, productivity and competitiveness** and **biodiversity loss.**

Figure 69 Most significant short run trends and long run trends



Most significant trends (top-20) in the short run (1-10 year) and in the long run (10-30 years) based on the frequency ranking of trends that were assessed to have 'high significance' for rural areas

The analysis of **drivers** behind these trends by sector revealed that the **dominant driver for all economic sectors is globalisation**. A number of other drivers have a significant impact on primary production: ecological awareness, climate change, increasing farm size and decreasing farm numbers. Other top drivers affecting manufacturing, private and public services include **market liberalisation**, **demographic change**, **industrialisation** and **digitalisation**. **Urbanisation** and the **internet** are most significant for private services.

RURALIZATION also analysed the impacts of the trends between **various types of rural areas** (within functional urban areas, in urban proximity or remote). They found that positive impacts mostly relate to rural economic growth and diversification (e.g. rising demand for 'local' products), facilitating migration into rural areas, protecting the rural environment and, finally, supporting equality and inclusiveness of rural societies. The profile of impacts is quite similar between the different types of rural areas, with food related trends being slightly more impactful in rural areas close to cities (e.g. prosumerism) and economy and population related trends being

more important in remote areas. In the latter regions, positive impacts are mostly linked to the entry of new inhabitants, new or better services, halting rural decline and preserving activities. On the negative side, again the impact are quite similar, with negative impacts related to the environment ranking higher in rural areas within functional urban areas, whereas negative impacts related to economy are most common in remote rural areas.

When looking in more detail, one can however find a relatively high differentiation. A tendency to cut public spending in disfavour of the rural, enhanced depopulation, deficiencies in services and infrastructures, increased transaction and reorganisation costs and the role of regulation rather than markets in guiding production are examples of impacts that the project finds to be more common in remote rural areas than in urbanised areas. T**he analysis concludes that all three types of areas can harness trends such as sustainability transition, cooperation and networks, lifestyle and governance to overcome negative impacts of other trends**, with a more challenging situation for remote rural areas and areas outside of a functional urban area.

POLIRURAL analysed 64 drivers of change using the STEEPV[107] methodology. They identified as main drivers the **impact of the COVID-19 pandemic**, the related **counter-flow of people from urban to rural areas**, the **impact of climate change on the economy** (including the integration of farming in the carbon economy), future policies (in particular the Green Deal and the new CAP delivery model), and finally **activism and interest in the cooperative economy.**[108] This latter point echoes the identification by ROBUST, through its qualitative analysis of rural-urban relations, of a growing interest at local or regional levels for **new approaches of economy that provide social and environmental benefits on par with economic benefits**. They also observed changes in rural-urban relations as a result of COVID-19 pandemic.

In their report on digital game changers[109], DESIRA experts found that the four technologies with the largest potential to bring change and contribute to build desirable futures in rural areas by 2040 are i) **data and analytics** (big data); ii) **artificial intelligence**; iii) **local and remote sensing**; and iv) **websites** and **online platforms**.. They found out that **websites and online platforms** will be particularly relevant for infrastructure and services, the availability, affordability and quality of digital technologies and providing income and jobs. **Social media and social networks** could have a strong effect (positive or negative) in facilitating social inclusion and vitality. In the domain of **infrastructure and services** (health, education, housing, transport), the influence of a wider variety of technologies is observed, such as Blockchain or other certification or traceability services; augmented reality, virtual reality and 3D printing, artificial intelligence (AI); and autonomous systems. Finally, experts identified technologies such as data and analytics (Big data), local and remote sensing and artificial intelligence (AI) as those most likely to change the game in relation to climate change and environment.

In their report on anticipatory futures of modern rural economies, RUBIZMO experts identified three emerging opportunities to seize to develop modern rural economies:

- the use of **new information and communication technology,**

[107] STEEPV: Society, technology, economy, environment, politics and values.

[108] POLIRURAL, *An inventory of STEEPV drivers of change*, POLIRURAL Horizon 2020, 2021.

[109] Brunori G., Nieto E., Casares B., et al., *Expert's recommendations to boost sustainable digitalisation of agriculture, forestry and rural areas by 2040*, DESIRA, Horizon 2020, 2021.

- knowledge exchange, and service delivery, the **development of the bioeconomy based on renewable resources,** which brings the potential to create a bio-industry with a strong rural base, and
- the **activation and valorisation of ecosystem services** for the protection and improvement of the environment and its use for touristic activities.[110]

SURE-FARM assessed the impacts of future scenarios on the **resilience** of farming systems across the EU, including on the link between farming resilience and the attractiveness of rural areas. Resilience is described as the capacity to withstand shocks (robustness), adapt to shocks with minimal changes (adaptability) or significantly change the systems logic (transformability).[111] They concluded that most farming systems are close or beyond critical thresholds that require important transformation.[112]

5.3.1.1. Scenarios in research projects

Although not recent, the project FARO-EU "Foresight analysis of rural areas of Europe" (2007-2009) is worth mentioning because of its scope. The research team developed two scenarios with 2030 as a time horizon, policy as the main driver and "public intervention" vs "market liberalisation" as extremes. Both scenarios showed the potential for positive or negative outcomes for rural areas, with more positives for the public intervention scenario and more negatives for market liberalisation. Key concluding messages included that non-agricultural trends in rural areas appear more relevant in shaping rural futures than agricultural processes. The project focused its policy recommendations on the **need for place-based and tailored policies.**[113]

SHERPA has reviewed ten foresight studies[114], three of which looked at **demography** and **democracy** drivers together (WEF, ESPAS, EDORA), with 2030 as a time horizon. The review focuses on 17 scenarios developed at the time of publication.

Two projects, SALSA and TRANSMANGO developed scenarios focused on agri-food. SALSA's scenarios (business as usual; mirror; enabling; and disrupting) aimed at assessing the **role of small farmers in regional food systems by 2050** and were structured around several drivers shaping more constraining or enabling environments for small operators, including openness to international markets and concentration of value chains and legal requirements.[115] The "enabling" scenario which combines a limited concentration of value chains and flexible

[110] Schiefer G., *Anticipated futures for modern rural economies*, RUBIZMO - Horizon 2020, 2018.

[111] SURE Farm, Resilience Framework. https://www.surefarmproject.eu/about/resilience-framework/

[112] Accatino F., *Impacts of future scenarios on the resilience of farming systems across the EU assessed with quantitative and qualitative methods*, SUREFARM, Horizon 2020, 2020.

[113] FARO-EU consortium, *The ruralities of EU 27: Main findings and policy considerations of the FARO-EU project*, 2010.

[114] Brunori, G., et al., *Overview of a sample of existing foresight and scenario studies carried out at EU and global levels*, SHERPA, 2020.

[115] Arnalte-Mur L., P. et al.,. *Synthesis report on the future potential role of small farms in FNS in Europeand Africain 2030 and 2050: results of a foresight assessment*, SALSA, Deriveralbe 4.2, 2019. http://www.salsa.uevora.pt/wp-content/uploads/2020/02/D4.2_participatory_foresight_feb20.pdf

legal requirements is the most favourable to rural prosperity. The scenario analysis highlighted that even under the most unfavourable conditions for them, small farmers and food businesses can retain a significant role in securing food supply to a minority of vulnerable groups. It also highlighted that the role of these small operators goes beyond food security and is closely linked to the preservation of rural landscapes, environmental services and the **support to employment and rural communities**. It also highlighted the role of collective action and cooperation in seizing opportunities and overcoming threats.

TRANSMANGO's four scenarios were used to assess the **impact of global drivers on EU and global food production and consumption.** One of the four entitled "the price of health" scenario sees people moving back to rural lives as a result of necessity, changing norms and values, improved connections and strong government policies on sustainability and self-reliance.

VOLANTE 'visions of land-use transitions in Europe' produced a scenario framework for interpreting and refining storylines for land use change at the European scale by 2040 (cf. visions) structured around two axes: **willingness vs reluctance to change to more sustainable lifestyles** and **globalised or regionalised world** with respectively weak or strong public intervention. Globalisation is seen as favouring more intensive land-use and greater territorial inequalities.

The ESPON project 'European Development Opportunities for Rural Areas' (EDORA) considered **climate change** as the most important driver and developed four scenarios structured by two axes, speed of the response to climate change (rapid vs gradual) and levels of state support (high vs low). They suggested that increasing spatial differentiation is principally a consequence of **localised differences in the capacity to respond to external drivers,** highlighting the need for capacity building in communities.

Finally, SHERPA's review refers to the meta-analysis carried out by LEI Wageningen on alternative futures of rural areas[116], that stressed the need to take into account not only varying levels of policy interventions, as most scenarios do, but also the likeliness of disruptive events that may act as real **game changers**.

Most recently, the project IMAJINE developed scenario sketches of future visions for European spatial justice. The scenarios take 2048 as a time horizon and are structured considering two factors: "**What degree of solidarity vs autonomy is shown within the European Union?"** and "**What is the prevailing goal of European society, economic prosperity or wellbeing?**" Territorial inequalities tend to decrease at least in some regions under both scenarios in which solidarity is high, and even more where **well-being is the prevailing goal**. Territorial inequalities intensify under the "*autonomy and economic prosperity*" scenario while outcomes are more variable under the "*autonomy and well-being*" scenario as a result of increased local variations which can see a village and a metropolitan area thrive when others decline.[117]

The project RELOCAL also developed scenario work across its 33 case studies analysing the likelihood of certain outcomes depending on a multiplicity of factors. Types of spatial inequalities analysed include "territorial disadvantage" and "disempowered places". The project

[116] Jansson K.M., Terluin, I.J., *Alternative futures of rural areas in the EU: a comparative analysis of scenario studies*, European association of agricultural economists, 113th Seminar, Belgrade, 2009.

[117] Finch M., *Scenario sketches for IMAJINE,* IMAJINE -Horizon 2020, 2020. http://imajine-project.eu/2020/09/07/scenario-sketches-for-imajine-future-visions-for-european-spatial-justice/

found **demography** factors to be the most important for territorially disadvantaged places while **policy factors** are the most important for disempowered places. [118]

From the specific perspective of land-sea interactions, the COASTAL project built three thematic narratives from participatory activities involving six local cross-sectoral multi-actor labs: "**people and nature**", "**governance and cooperation**" and "**circular economy**" and identified 13 transition pathways each applying to one of the four strategic sectors: farming, energy, tourism and maritime activities. **Transition pathways for each sector vary depending on the shared goal that is chosen**.[119]

5.3.2. Visions & enablers

The SHERPA project elaborated a vision using a participatory process (April- December. 2020) involving 20 local multi-actor platforms (MAPs)[120] in 20 countries and one EU-level multi-actor platform[121], each composed of 10-15 representatives from civil society, policy making and research. People were invited to formulate their vision for a desirable future and then to reflect on enabling factors. The latter were prioritised through a survey of over 1000 rural stakeholders. The resulting position paper[122] is informative despite caveats on the representative character of the group of participants. This paper draws together common elements that would characterise a desirable future for rural areas by 2040 from the 21 individual visions:

- Rural areas are **digitalised and smart**
- Rural **economies are diverse**, **well-connected, valued** and **circular**
- **Climate, environment and biodiversity** are nurtured
- Rural communities are **well-connected** through **improved infrastructure and services**
- **Social capital is strong** through stable demographic structures
- People are **involved in the governance of their territory, thanks to inclusive governance, better rural-urban connections and a revalorisation of the role of rural areas.**
- Knowledge and data empower a better understanding and **positive image** of rural areas

The paper insists that future rural areas should have **powerful local communities**. They should be **appealing to live in, visit and work**. They should be **attractive in their own right**, with a **high quality of life** and they should be **attentive to climate and nature**.

[118] Simone P. et al., *Trajectories of spatial justice and actions to achieve it across Europe*, RELOCAL – HORIZON, 2020. https://relocal.eu/wp-content/uploads/2020/07/RELOCAL_D8.3_020720.pdf

[119] Akinsete E., Guittard A., Depoorter M., *Coastal-rural generic scenarios and transition pathways*, Deliverable 18, COASTAL - Horizon 2020, 2020.

[120] Multi-actor platforms (MAPs) https://rural-interfaces.eu/multi-actor-platforms/

[121] EU-level multi-actor platform https://rural-interfaces.eu/eu-map/

[122] Chartier, O. et al., *Long-Term Vision for Rural Areas: Contribution from SHERPA science-society-policy platforms.* SHERPA Position Paper. 2021. https://rural-interfaces.eu/wp-content/uploads/2021/02/SHERPA_PositionPaper-LTVRA.pdf.

The enabling factors to reach this vision most frequently selected by the MAPs were "***Empowering local actors and communities***" and "***enhancing multi-level and territorial governance***" (18/20), followed by "***enhancing smart ruralities and digitalisation***" (16/20). Other important enablers included improved "*data and knowledge*" (12/20), "*shift in production and diversification of the rural economy*" (11/20), "*more accessible infrastructure and basic services*" and "*better climate change and environmental services policies and practices*" (9/20 each).

The RURALIZATION project, from its perspective on generational renewal and rural newcomers also worked on a project for a vision, in which the narrative of rural decline is turned into a "ruralisation" process of mutually reinforcing elements that leads to a paradigm shift in rural society, economy and culture. In their vision, this change was prompted by a new attention to the countryside in an era of multiple crises, in which i) rural areas, because of their peripherality, were the places where new answers could emerge; ii) society was drawn to *"rethink community and reappreciate the basis for life which is air, water and soil."* **Regeneration**, **resilience**, **innovation**, **capital** frameworks (financial, social, cultural, natural, human and built) came out as key enablers.[123]

RURALIZATION also explored visions from young people through an inventory of the future dreams of 2200 urban and rural young people in 12 countries. This work demonstrated that a significant number of young people see themselves living elsewhere in 2035, with a potential for all rural areas, in particular those close to cities and rural remote areas, to attract more residents. Rural villages that are neither close to a city nor with the natural amenities of remote areas would lose, as would city centres and city areas. One third of respondents said COVID-19 impacted their answers.[124]

[123] RURALIZATION, *Long Term Rural Vision: ENRD Thematic Group*, 2021. https://enrd.ec.europa.eu/sites/default/files/ltvra_meeting_3_-_enrd_-_maura_farrell_-_ruralization_jan_2021.pdf

[124] Kuhmonen, T., Ruuska, P., Skrzypczyński, R., *Inventory of futures dreams by the youth: summary report*, RURALIZATION D4.3, 2021, https://ruralization.eu/wp-content/uploads/2021/03/RURALIZATION_D4.3_Dream-inventory_summary-report_v1.0-1.pdf

5.4. ELEMENTS FOR THE EU VISION AND PATH TOWARDS 2040

All building blocks (consultation, analysis and foresight) point to the importance of **human** factors and **governance**, as well as **socio-economic** and **natural** environments. Lessons drawn from the COVID-19 pandemic also have to remain on the radar for the way forward up to 2040.

Resilience is the new compass for post-COVID-19 pandemic and long-term recovery. The first EC Strategic Foresight Report defines resilience as the "ability not only to withstand and cope with challenges but also to undergo transitions in a **sustainable**, **fair** and **democratic** manner"[125]. The report launches a forward-looking assessment of resilience in the EU, based on four dimensions (geo-political, social & economic, green and digital). While there is common ground with sustainable development, resilience also encompasses dynamic elements about recovery, highlighting the green and digital transition, but also fairness and democracy. This resonates well with insights that came out of the participatory foresight for preparation of the vision.

Beyond the recovery, a key aspiration as we move towards 2040 is that rural areas and communities can bounce forward on a more sustainable path, and remain **resilient** over the long-term. Along with the dimensions of **sustainable** development, and adding the element related to **democracy** and **innovation**, in line with resilience, the next section proposes stepping stones for the vision.

5.4.1. Green dimension

Rural areas have great potential as the principal source of natural **resources** and **eco-system services**, essential to achieving the green transition that society needs, including fulfilling the 17 Sustainable Development Goals (**SDGs**) and the targets of the **Green Deal**. In this respect, they provide local solutions to global challenges.

A common goal identified by stakeholders from across the EU, and towards which all pathways should lead, is that of rural areas as flourishing sources of nature, providing a high quality habitat for all species, including humans, in a sustainable and climate-neutral environment.

Many of the policies constituting the Green Deal, with its EU climate neutrality target by 2050, concern rural areas and will influence the activities undertaken, the way land is used, how our food is produced, and the daily lives of rural citizens.

The green transition means that new **opportunities** are emerging, with associated jobs and benefits for rural communities. The demand for renewable energy is increasing and nature-based solutions, sustainable forest management, rewilding, changes in farming systems and appropriate management of protected habitats, water resources, carbon rich soil and wetlands can provide both environmental and economic benefits. Rural communities are well-placed to develop and implement innovative bio-based businesses and facilities and become actors of the circular economy. Bio-refineries could become key transforming industrial facilities towards a climate-neutral Europe 2050, especially in rural areas where bio-based feedstock is abundant and bio-refineries usually located.[126]

[125] Manca, A.R., Benczur, P., and Giovannini, E., *Building a scientific narrative towards a more resilient EU society*, Part 1: a Conceptual Framework, 2017.

[126] See Baldoni E., et al., *Chemical and material biorefineries in the EU*, Publications Office of the European Union, 2021.

A successful green transition requires identifying and promoting win-win solutions that maintain and enhance natural capital without exploitation or degradation, whilst generating economic opportunities.

At the same time, some current rural activities face additional **challenges**. GHG emissions from agriculture must fall, fertiliser and pesticide use needs to decrease, whereby food production has to adapt to consumer needs for healthier diets. On the basis of current assessments and projections this will require significant changes in farming practice and consumer habits. Moreover, the shift to a climate neutral mobility will be costly for people living in remote rural areas.

Hence, the path enabling to achieve climate neutrality and to enhance biodiversity must be **fair**, taking due account of the needs of rural communities, and ensuring that rural citizens do not bear a disproportionate share of the costs of the transition. Achieving this will also require innovative approaches, including developing social capital and community-based solutions.

5.4.2. Social and economic elements

In an age of change, **fairer** society means "that those who share the same aspirations have the same opportunities to fulfil them"[127]. The transition of rural areas needs to strengthen inclusion and equality.

Economic **recovery** in rural areas close to cities can give a good base for further development through higher in-migration based on a higher well-being.[128] Welcoming newcomers, such as migrants and people from urban areas, in these areas is essential. In more remote areas investing in quality and inclusive early childhood education and long-term care services and schools, access to healthcare, nutrition and decent housing can help break the negative development patterns by 2040, also in line with the European Child Guarantee[129].

Rural **women** more often bear a disproportionate burden of the COVID-19 pandemic[130] not only as healthcare workers, but also due to care of out-of-school children and the sick or elderly relatives, the reduction in economic opportunities, the reduction in women's reproductive and health services, and increases in domestic violence. Next to this in many rural sectors, women are under-represented.

Ageing trends will also challenge fairness and a just transition. Pensions or other benefits could become a key source of income for a majority of Europeans also in rural areas, while improved longevity and the digital transformation could also allow people to work for longer in rural areas.

Although we see **young** people as the future, rural youth often find only low wage, temporary and non-standard jobs and have access to limited cultural or recreation possibilities as compared

[127] COM (2020) 14, Communication A Strong Social Europe for just transitions.

[128] OECD, *Rural Well-being*, 2020.

[129] COM(2021)137 Proposal for a Council Recommendation Establishing a European Child Guarantee.

[130] FAO Briefing, *COVID-19 and rural poverty: Supporting and protecting the rural poor in times of pandemic*, Policy, 2020. www.fao.org/publications/card/en/c/CA8824EN

to their peers who live in cities. Young people with disabilities, those with an immigrant background and young parents are at an even greater risk of falling behind.

Inclusion and **non-discrimination** (for instance vis à vis Roma people) are also key elements of fairness.

All this can be summarised into a fair aspiration: inclusive communities of inter-generational solidarity and renewal, open to newcomers and fostering equal opportunities.

Moreover, to enable rural areas to be more **prosperous** as they move along a **balanced territorial development** path, their specific potential needs to be unlocked, seizing more economic opportunities. This includes providing **goods** and **services** for the wider society and retaining a fair share of the **value** generated in rural areas. **Agriculture** and **food** production will still ensure the basis of food security and nutrition, but further value could be added, including as part of more sustainable food systems and of the broader sustainable **bioeconomy and the circular economy**. Further **diversifying** economic activities, via smart specialisation strategies, building on each rural area's specific assets, can improve livelihoods.

Beyond prosperity, **well-being** reflects the aspiration to live and work-well together and to enjoy a high **quality of life**, hence some common ground with the green dimension of resilience.

5.4.3. Connectivity (digital/mobility)

Rural areas, independently on whether they are remote of close to the cities, should be fully equipped with efficient and affordable public and private **services** (such as education, health, other social and economic needs). To meet transport and mobility needs of all European citizens, including in rural areas, a better integrated and seamless transport system for people and freight must be developed and implemented[131]. Rural areas should also benefit from **digital innovation** with equal access to emerging technologies. This is key to make them attractive places for newcomers to settle and for youth and families to stay. All this can be summarised into **'connected rural areas'** that encompasses not only the imperative of sufficient hard **infrastructures**, like roads, railways and broadband, but also the **rural-urban** linkages.

Such inter-connections are also key enablers for **innovation**, both technical and social. Therefore, beyond the digital transition, broader innovation matters. Finally connected pertains to new ways of **living**, **working** and **learning**.

5.4.4. Democracy/governance

While resilience implies a fair and democratic transition, this boils down to the idea of **empowerment**, which came out strongly from all participatory processes for the vision.

Empowered communities are enabled to determine their own development path. This requires an appropriate **governance** system, promoting subsidiarity, connected and coordinated across the different levels (EU, national, regional, local), where the voice of rural communities carries weight. This echoes the role of networking, as highlighted within the driver on "multi-level governance" used in the scenario axes. It encompasses networking within and between local rural communities and beyond.

[131] the Mobility4EU project developed 4 future scenarios: https://www.mobility4eu.eu/project/

Involving local citizens and a broad range of stakeholders as well as all levels of governance is key in developing tailor-made, place-based and integrated solutions. Stakeholders also identified the need for training, so that people become more **skilled** and **innovative**, co-creating technological, ecological and social progress. Empowerment should help to move from a geography of discontent[132] into a "**geography of opportunities**"[133].

To summarise, empowered rural areas and communities are **stronger**.

5.4.5. Mutually supportive stepping stones

In an attempt to capture the wealth of contributions, the keywords for the vision from, by and for rural areas and communities can be summarised as:

resilient
prosperous
connected
stronger

These keywords can offer stepping stones for building the EU vision. They are mutually supportive, as there is **common ground** across the above-mentioned dimensions and some issues, such as innovation, are cross-cutting. Based on the four strands, Figure 70 further summarises key **goals** stemming from the participatory approaches.

Figure 70 Proposed goals for the EU vision

[132] Dijkstra, L., Poleman H., Rodriguez-Psoe A., *The geography of EU discontent*, Working paper 12/2018. https://ec.europa.eu/regional_policy/sources/docgener/work/2018_02_geog_discontent.pdf

[133] OECD, *Rural Well-being*, 2020.

5.4.6. Conclusion

Each rural area is **unique**, in its current and future situation, its resources and the concerns of its communities. The chosen path of each territory towards a more resilient future will therefore be unique. However, participatory processes showed that there are **common aspirations**, which stretch across frontiers, languages and local specificities, and it is these that the rural vision seeks to support.

Beyond the **diversity** of rural areas, which is an asset for resilience, these aspirations reflect the **common ground** in enabling factors and can build a narrative for a common European vision. They converge with all of the six EU **priorities** (Figure 71), and accordingly an EU wide cooperation can **add value** to reach goals and priorities. Therefore, as part of the vision, **shared goals** are proposed.

Figure 71 Rural areas at the heart of EU priorities