Urban-rural interactions and their territorial disparities

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Who?

- **17 authors**:

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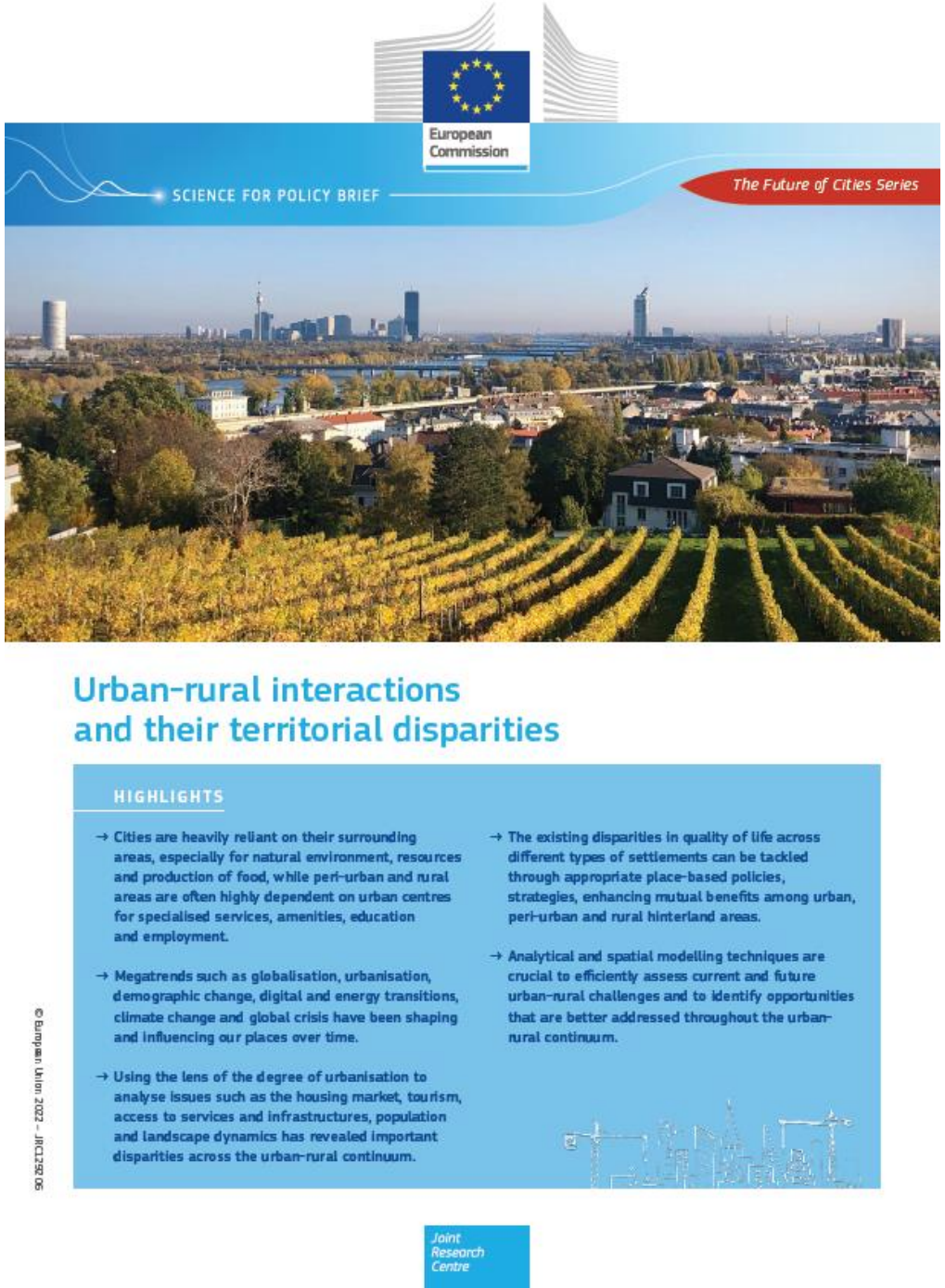


EU facts and trends

EU Population projections confirm a **slow population growth** for the coming years and even a decline in the long term.

The EU's population is **getting older** and will continue ageing. By 2030, about 25 % of the EU-27 population will be aged over 65. This process will also impact **Europe's work force** which will shrink by 2 % by 2030.

Locally, as **house prices** continue increasing in some EU cities more **daily in/out city commuting** are expected from households in peri-urban and rural areas close to cities.

Rural areas are lagging behind cities in terms of high-speed **broadband access**, but also **basic skills** which can limit personal and professional development.

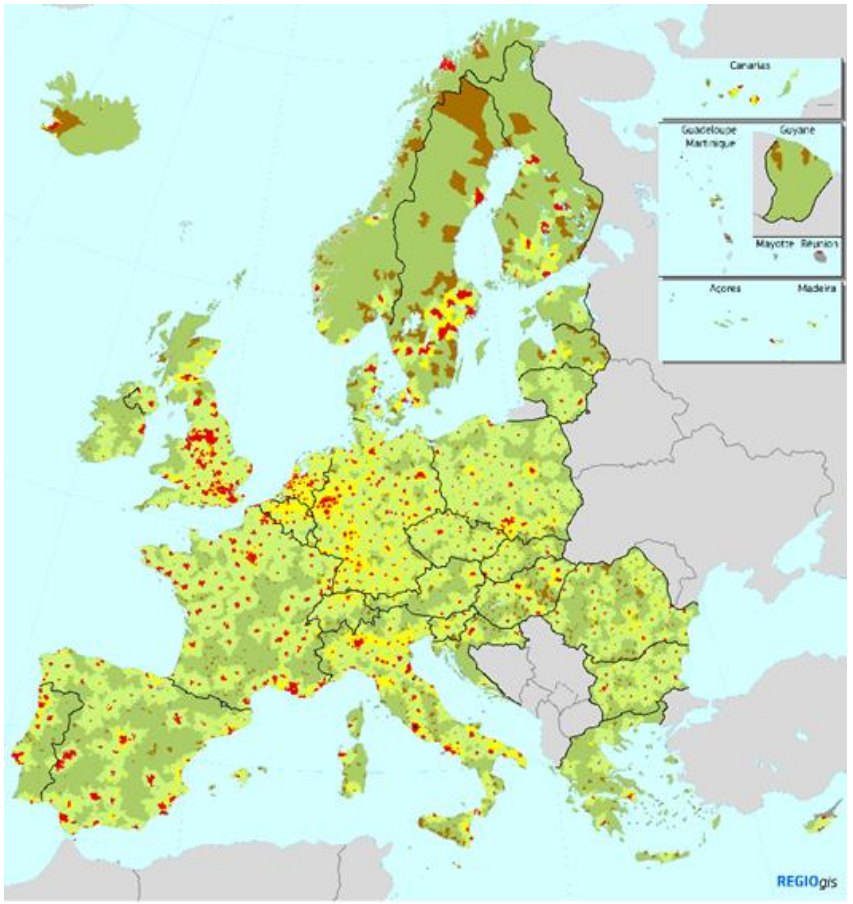
Patterns of occupational change show that **low-wage jobs** are often concentrated in peripheral regions while **higher-wage jobs** are becoming more and more concentrated in capital regions.

Conflicts between **urban expansion and changing land-use**, as well as the preservation of environmental amenities, ecosystem services, socio-ecological and socioeconomic systems.

Objective and scope

- This policy brief provides an overview of the interactions between urban and rural areas at the EU level from a conceptual, analytical and policy point of view.
- Mutual inter-dependencies exist over the urban-rural continuum, conceptually described as ‘linkages’ or ‘flows’. These can be associated to people, goods and services or environmental flows.
- The urban-rural continuum and territorial disparities are identified using the lens of the degree of urbanisation to compare EU regions (cities, towns and suburbs, rural areas) on relevant aspects.
- The brief provides quantitative information on interactions related to demography, housing preferences, tourism, natural and land-use flow, among others.

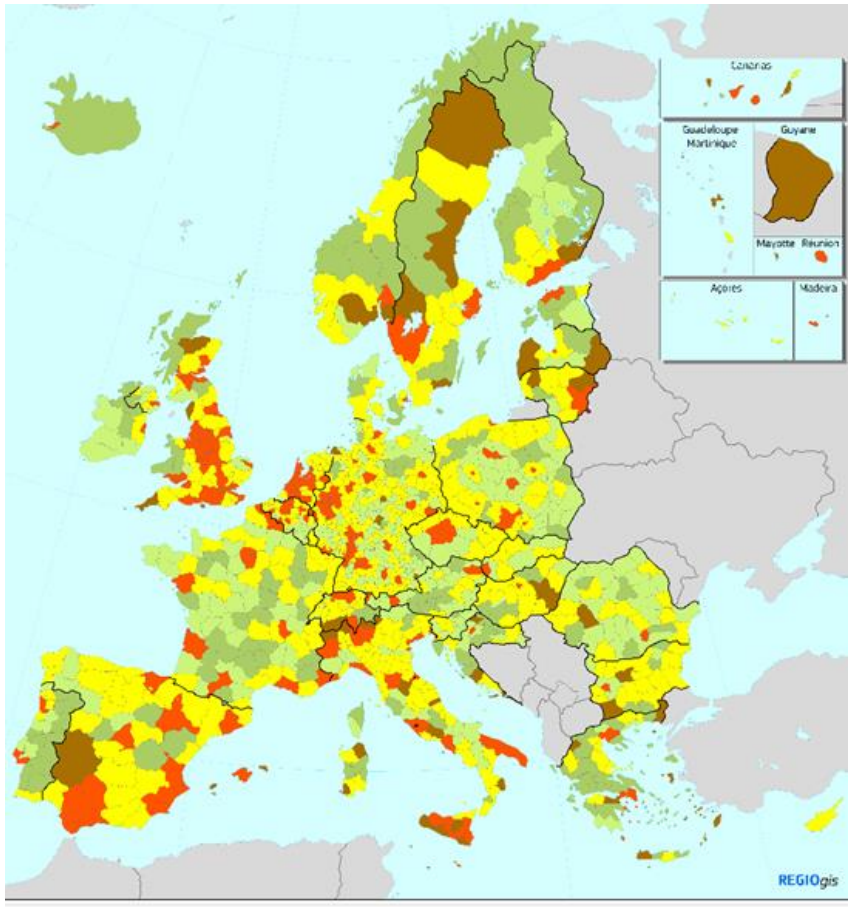
Degree of urbanisation / Urban-Rural typology



LAU's: Degree of Urbanisation including remoteness (45 minutes)

- City
- Town and suburb, close to a city
- Town and suburb, remote
- Rural area, close to a city
- Rural area, remote

Sources:
LAU 2011, CGC 2012, population 2011, TomTom 2020



Urban-Rural NUTS3 typology including remoteness (45 minutes)

- Predominantly urban regions
- Intermediate regions, close to a city
- Intermediate, remote regions
- Predominantly rural regions, close to a city
- Predominantly rural, remote regions

Sources:
NUTS3 2016, CGC 2012, population 2011, TomTom 2020

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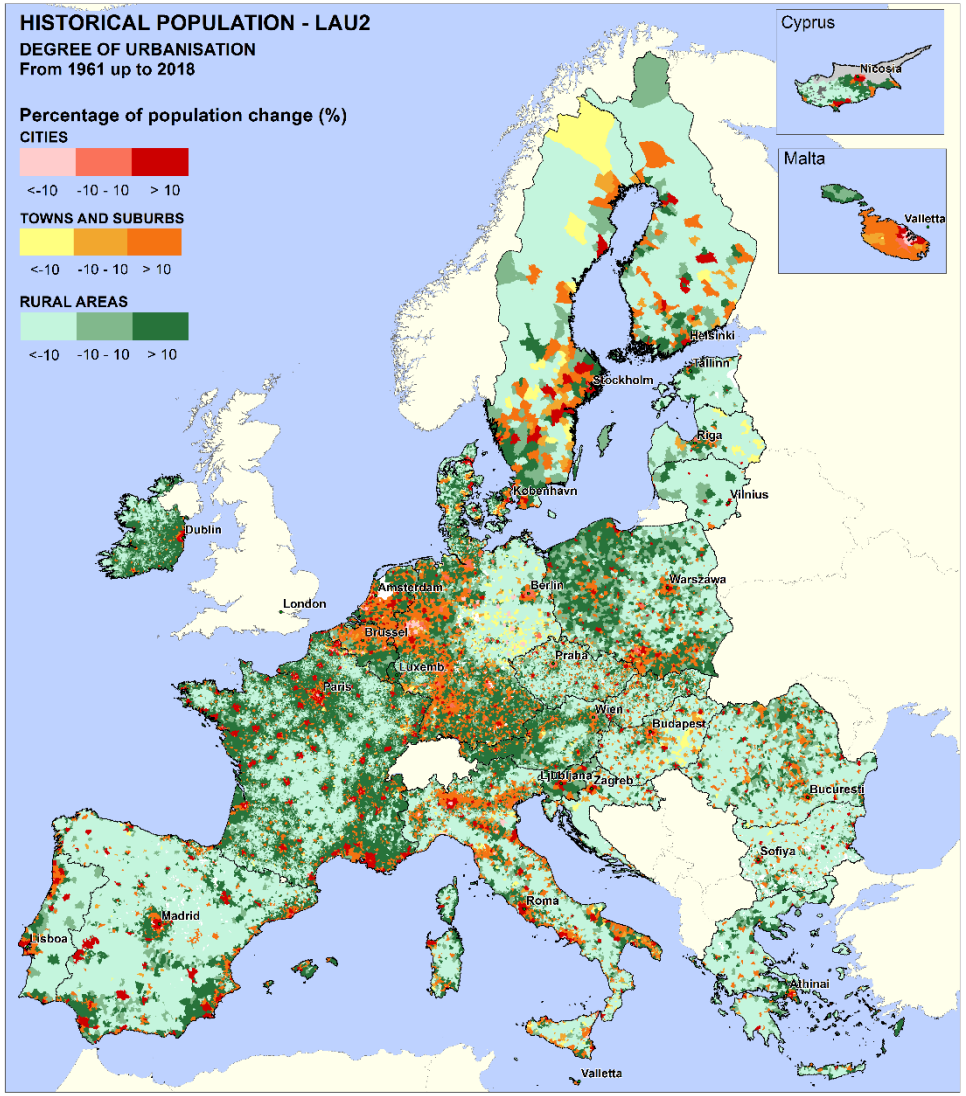
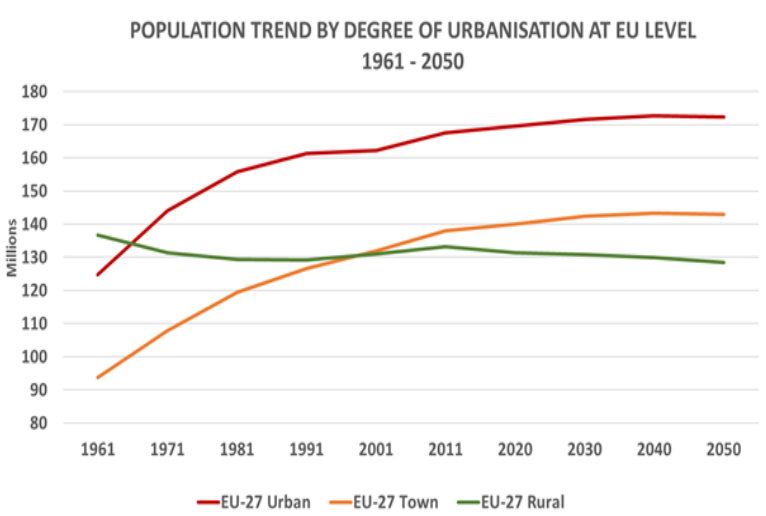
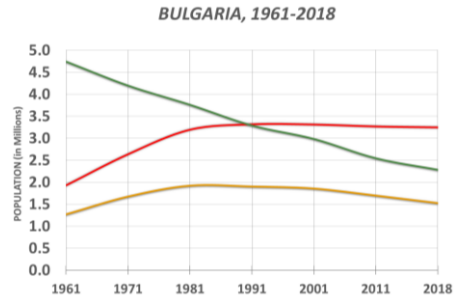
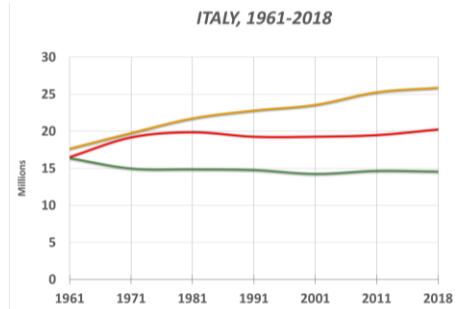
Rural areas are losing population and this trend will continue in most EU countries



- Overall EU population is projected to be slightly larger by 2050, but with a steady **decline of the rural population**.
- In 2018, most people was living in **cities** (39%), followed by **towns and suburbs** (34%), and 27% in **rural areas** in the EU27.
- From 2001, **cities and towns**' population increased by nearly 6% while **rural** population decreased by 1.2%.







Authors of this section: Perpiñá Castillo, C. |

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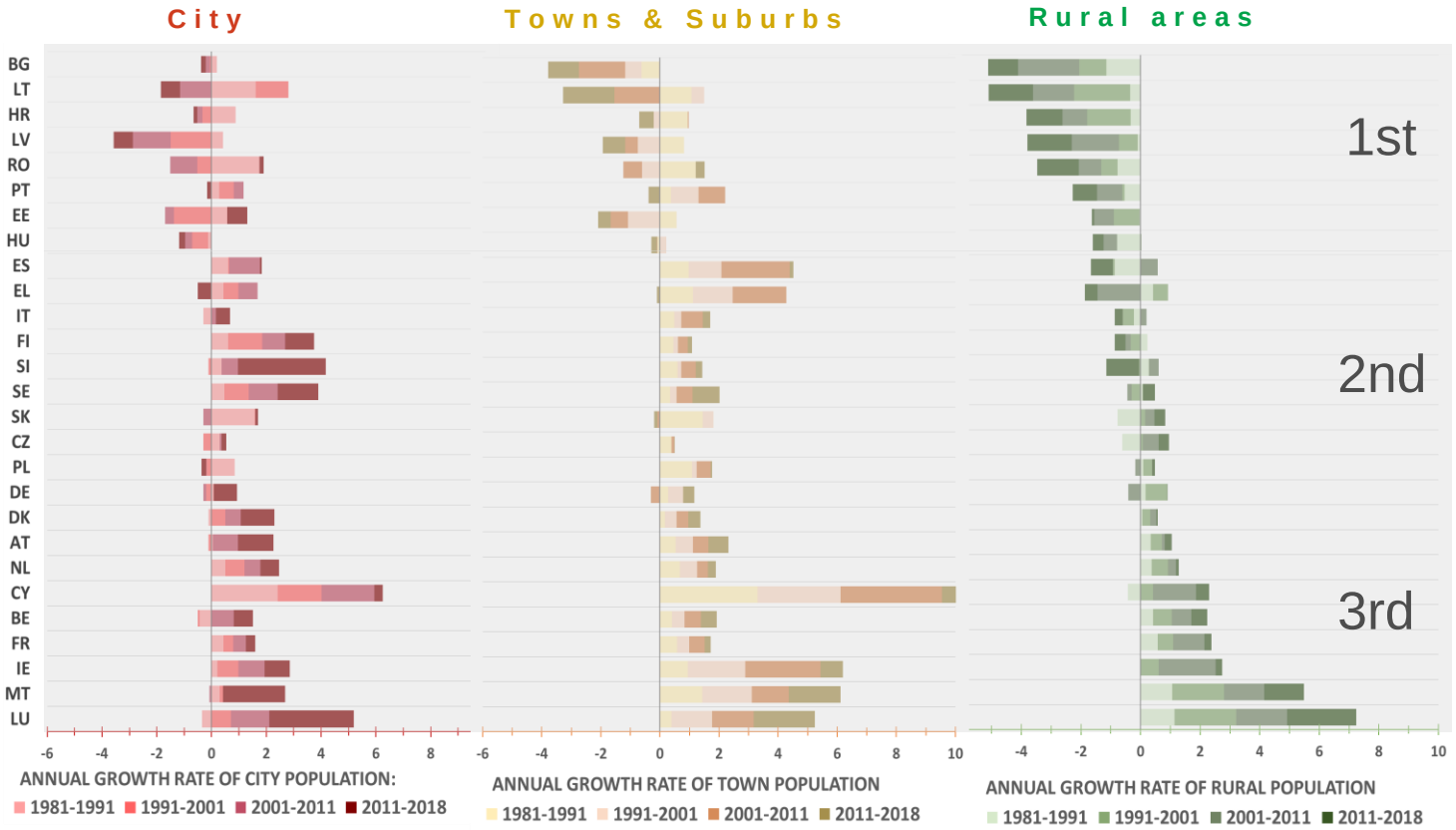
Towns and suburbs, followed by cities, have seen their population grow at a higher and positive rate compared to rural

Compound annual growth rate per decades, 1981-2018



Population dynamic profiles:

- A trend towards **continued population losses** that reflect country-wide negative trends (BG, LT, LT, EE, RO, HR, HU).
- **Rural population decline** while the country-wide population grew, mostly in cities and towns (ES, FI, SI, SK, PT, DE).
- A trend reflecting **a steady population increase** in the three categories (LU, MT, IE, FR, etc.).

Authors of this section: Perpiñá Castillo, C. |

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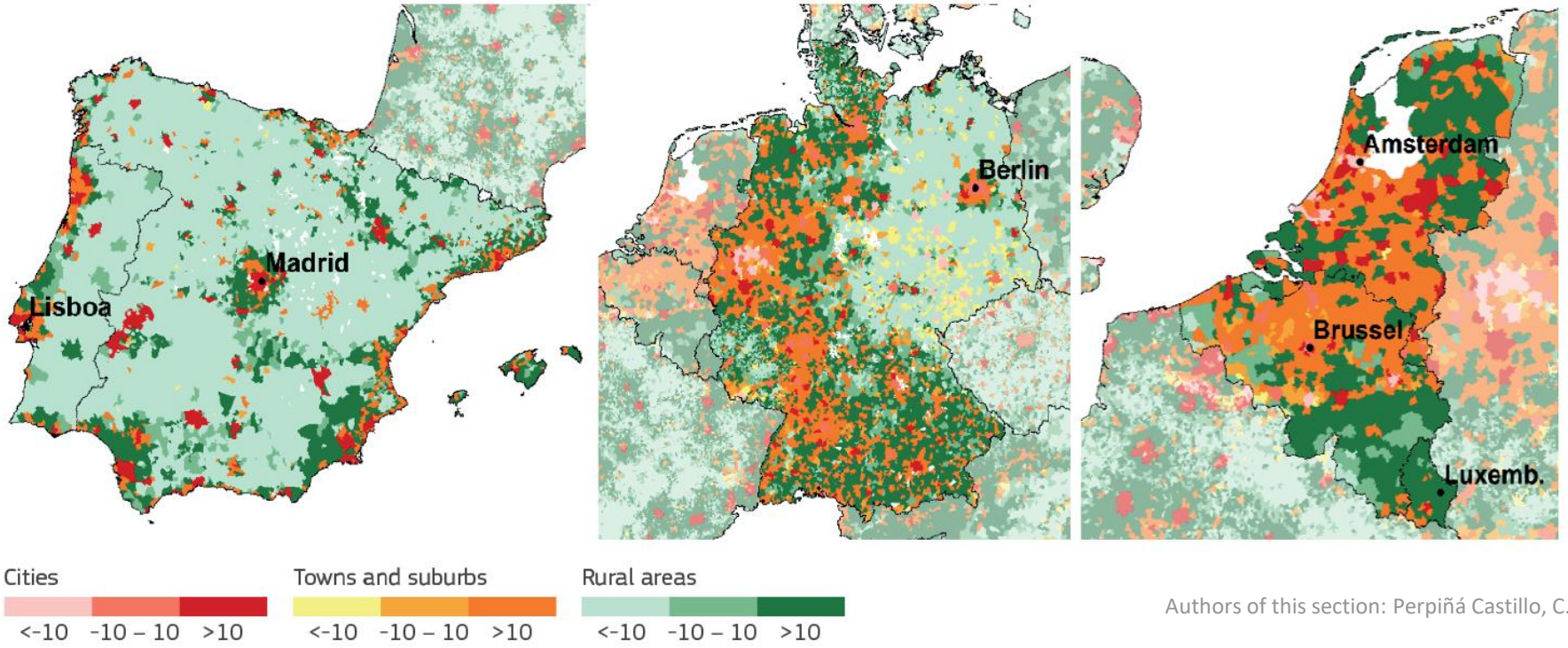
Population change, 1961-2011

Different patters of demographic dynamics since the 60s:

- In Spain and Portugal, rural-inner population moved to coastal areas and main cities.
- In Germany, population from the eastern part moved to the west, as well as to Berlin and its surroundings.
- In the Benelux area there was a more general increase in all three categories.



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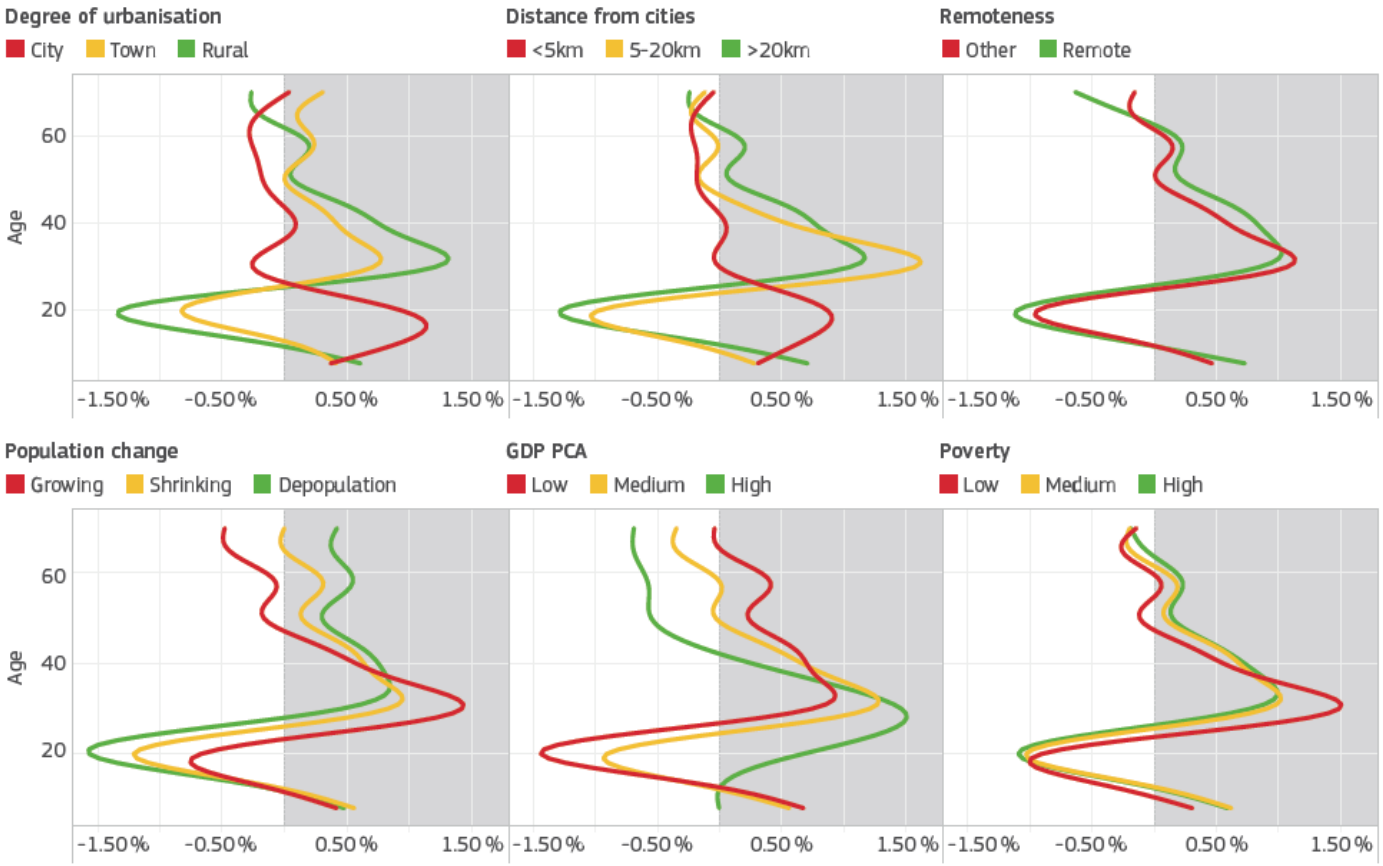
Positive net migration plays an important role in the demographic balance

Age-specific net migration profiles



Net migration profiles per age classes:

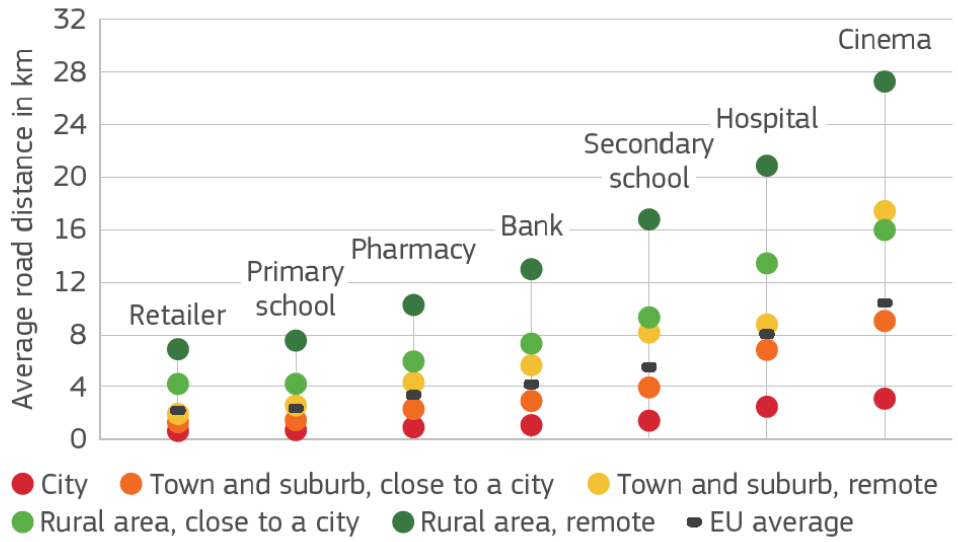
- **Young people (20 – 24)** tend to move to cities and within cities.
- **Young adults (25-29)** respond more clearly to depopulation and economic drivers reporting negative net migration in less developed (low GDP) and depopulated areas.
- **Young adults (30-34)** tend to prefer suburban or rural areas, and their movements are probably linked to family formation.
- **Elderlies** are less discouraged by low economic conditions and likely to move in countertendency toward rural areas compared to youth.

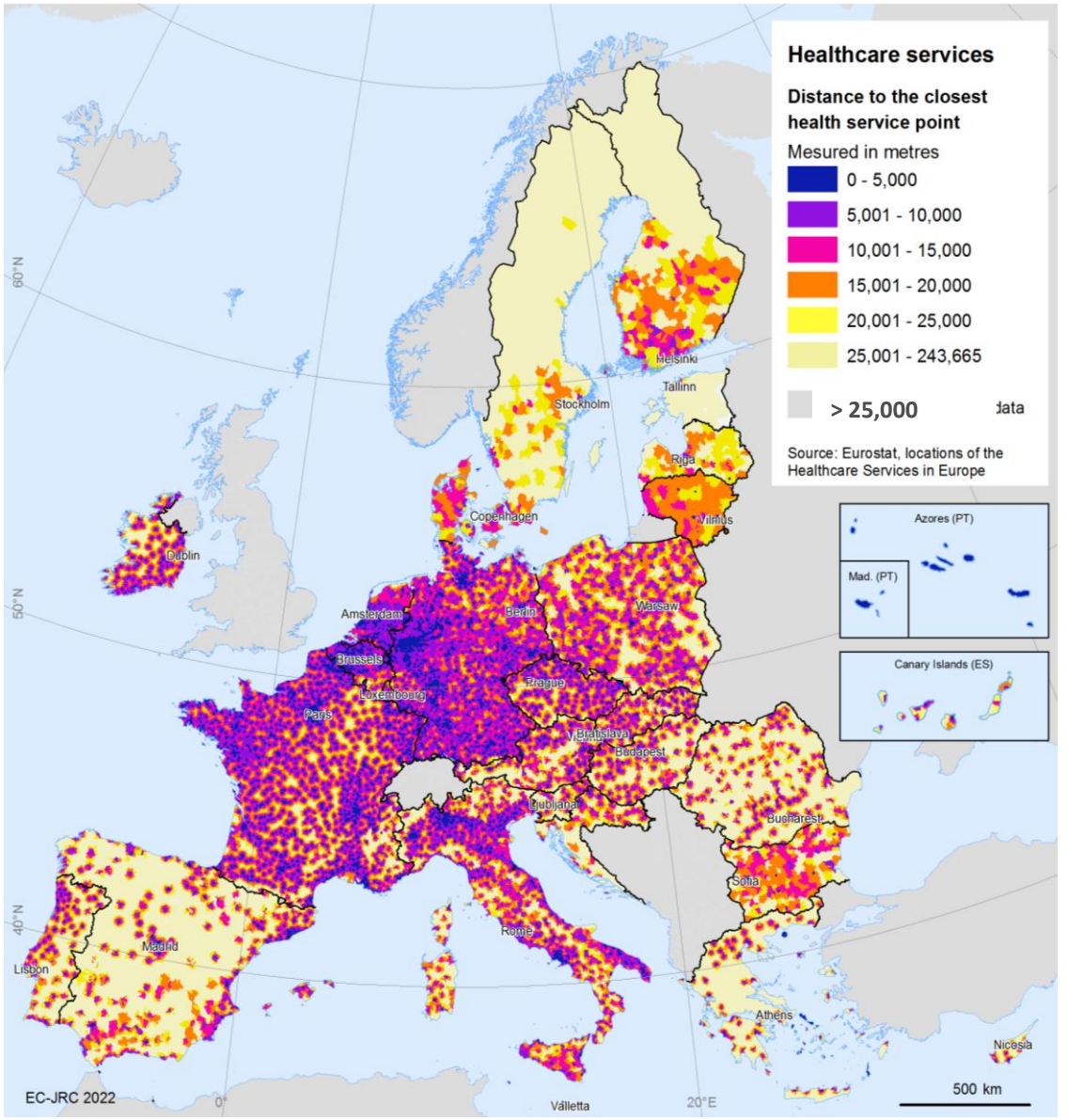
Authors of this section: Bosco, C., Ghio, D., Natale, F., Loeschner, J. |

Provision of services of general interest

- Overall, service accessibility in rural areas is lower and people have to travel larger distances to reach a service area or facility (retailers, schools, hospitals, banks, etc.)
- For primary schools and hospitals, for example, people living in rural areas need to travel two to five times more in average compared to people living in cities. RO, EL, BG, LT, LV has the lowest accessibility to primary school.

Average road distance to the nearest SeGI





Authors of this section: Jacobs-Crisioni, C., Kompil, M.|

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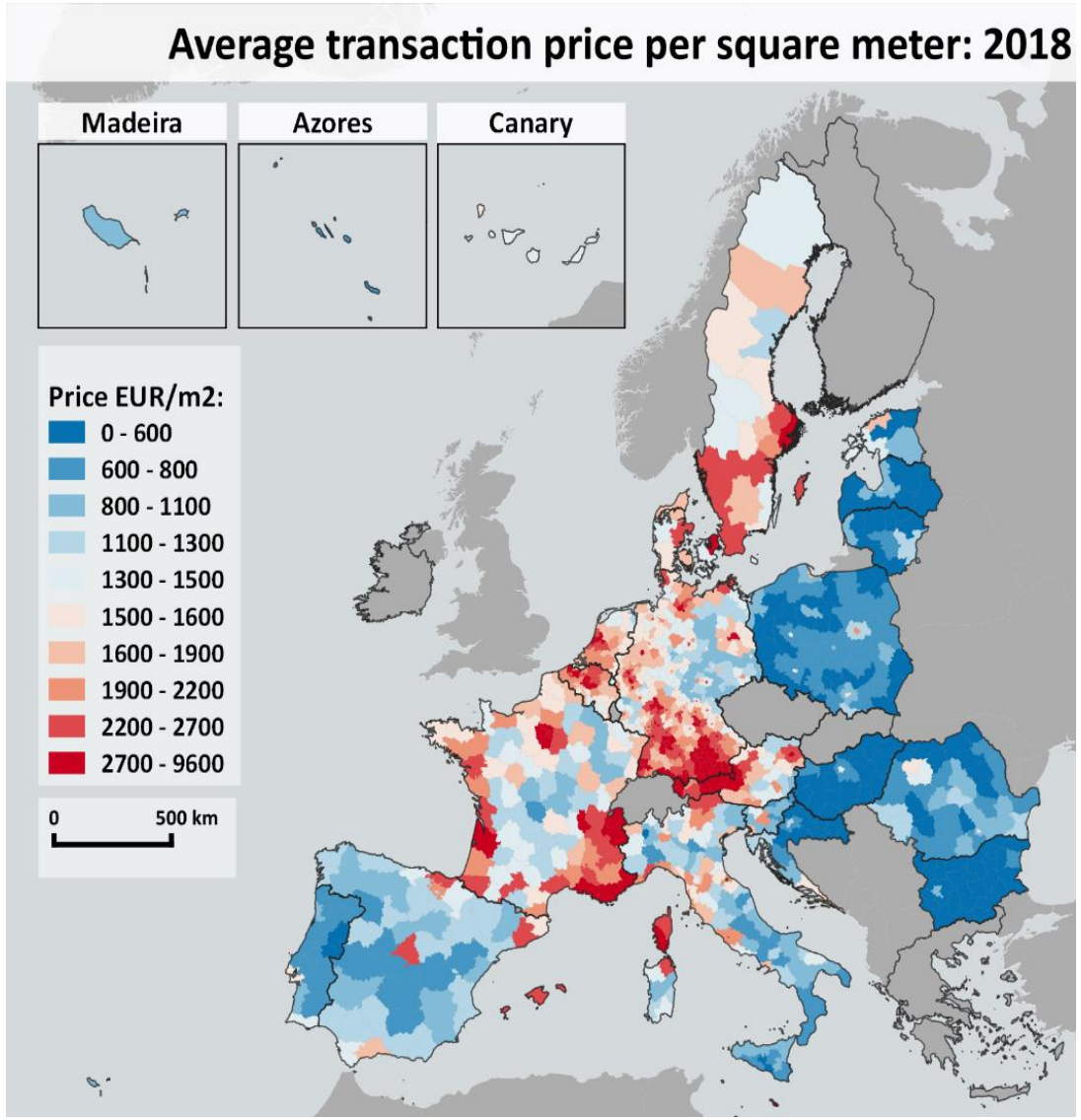
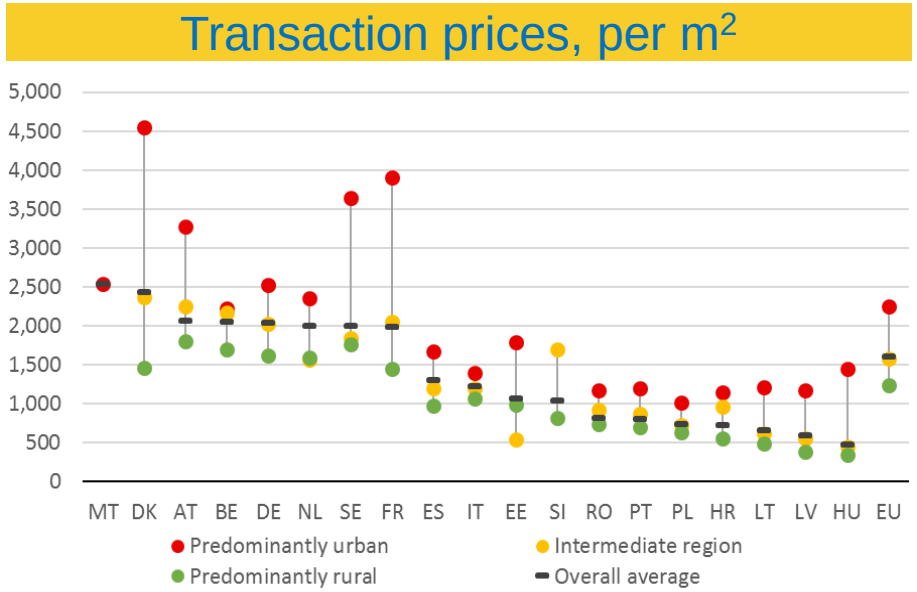
Housing prices



- The highest price levels and increases are found in predominantly urban regions, especially in DK, SE, FR.
- The soaring house prices put pressure on especially the lower- and middle-class households and the younger generations. Case study in The Netherlands shows a change in housing preferences.
- Regions with main capitals and its surrounding regions presented the highest prices, as well as some islands and coastal areas.



Authors of this section: Van Heerden, S., Barranco, R.|

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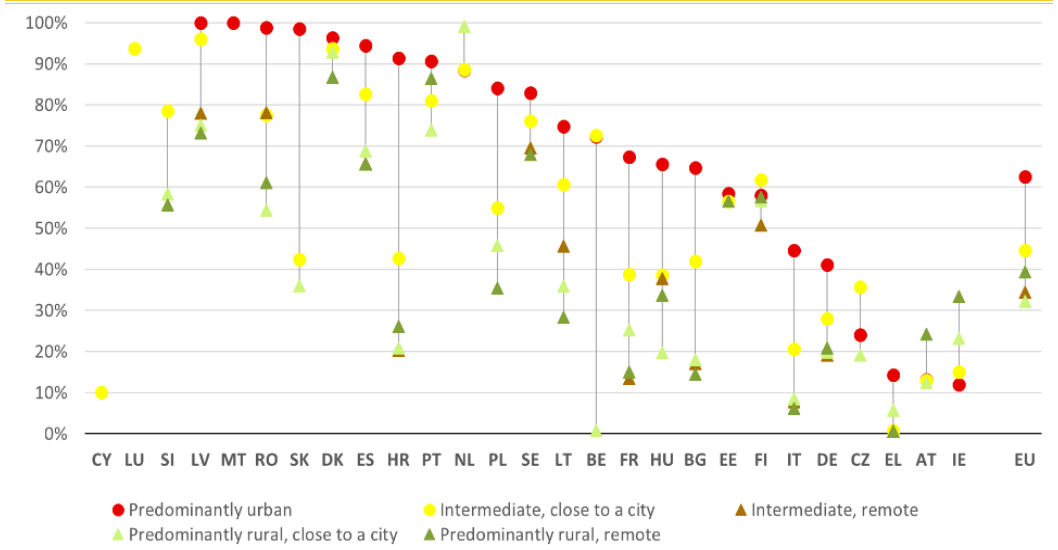
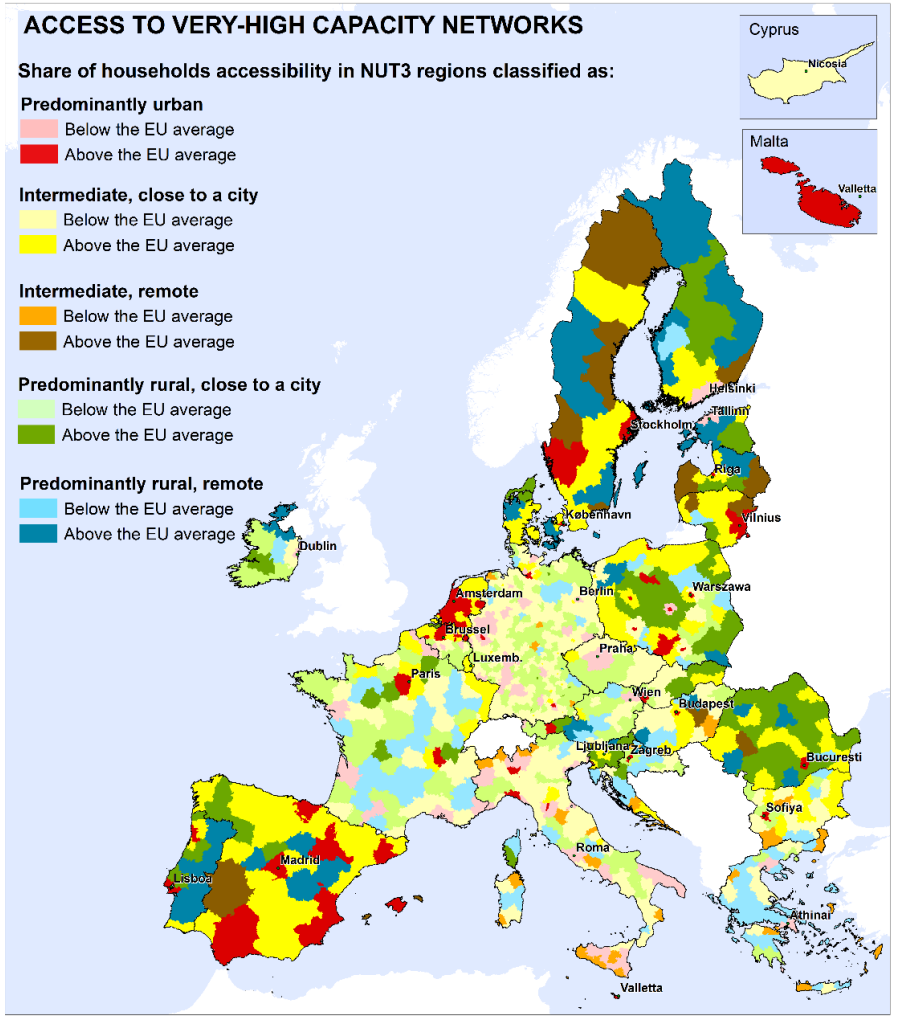
While urban-rural digital divide still persists, rural areas are slowly catching up

- Urban regions enjoy better internet connectivity and quality than peripheral, rural and remote regions.
- Less than 40% of the EU households in rural remote areas have access to VHCN, compared to 62.5% of urban households.
- LU, SI, LV, EE, MT, RO, ES, PT, SE and FI present shares above the EU average (49.6%) for all territorial typologies. In Denmark and the Netherlands more than 80% of the population has access to high-speed broadbands (VHCN).

Households (in %) with accessibility to VHCN





Authors of this section: Perpiñá Castillo, C. |

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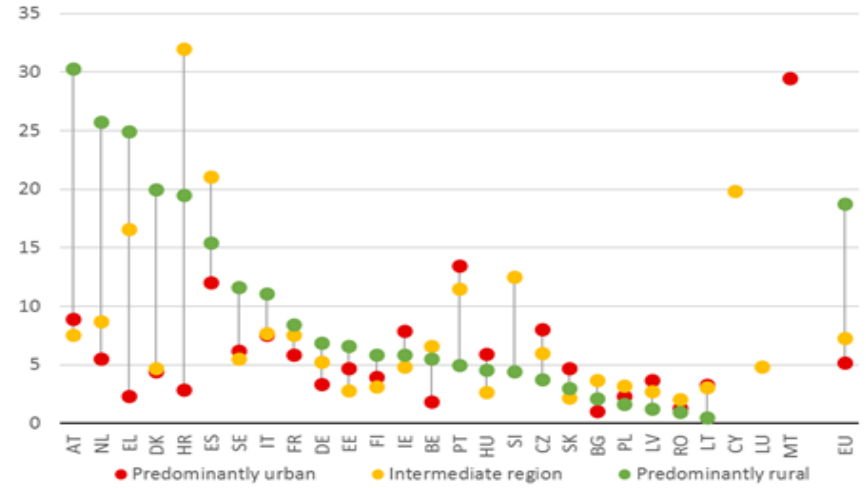
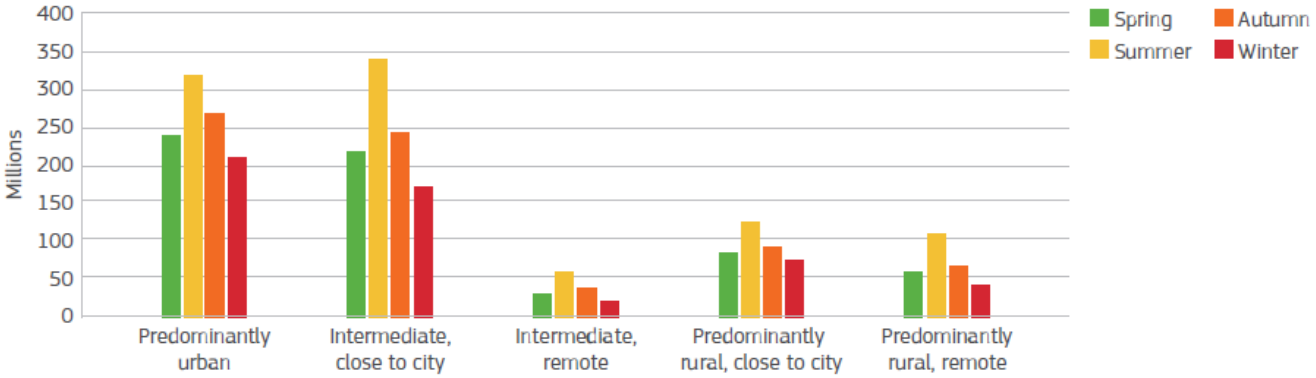
Tourism is an important sector for economy driving the demand for services

- Overall, domestic tourism was the most important component of rural and remote regions representing around 70% of total visitors in 2018.
- Coastal regions, including islands, in Spain, Italy, Greece, Portugal, Croatia, Cyprus, Slovenia south of Ireland, Baltics countries as well as main capitals are characterised by having the highest shares of nights spent by tourists.
- Seasonality - Finland, Bulgaria and Austria are the only countries where tourism is the highest during winter in rural remote areas, mainly linked to mountain and nature tourism.

Average number of nights spent/capita



Number of nights spent per regional typology and season



Authors of this section: Barranco, R., Batista e Silva, F. |

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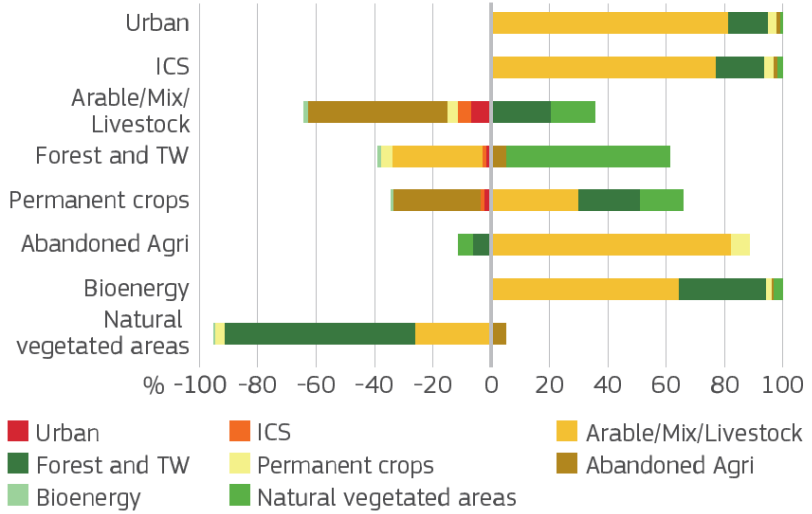
Environmental flows

- Rural areas represent 83% of the EU territory and more than half of this rural land area is classified as remote.
- Agricultural land and F&NA areas have substantial presence in regions close to a city, in intermediate and predominantly rural regions, and in rural remote regions.
- EU past and future trend shows that built-up areas increased chiefly at the expense of agricultural land. Agriculture, F&NA areas tended to balance each other, with a decline of the latter one, while the area covered by water stayed the same.
- In the next two decades, agricultural land is expected to decrease in most of the EU regions (NUTS-3) and at EU level, the decrease is expected to be of 1.6%.
- Agricultural land abandonment is one of the most extended EU land-use change with more than 3.5% of the UAA expected to be abandoned by 2030.

Net land-use flows conversion, in %



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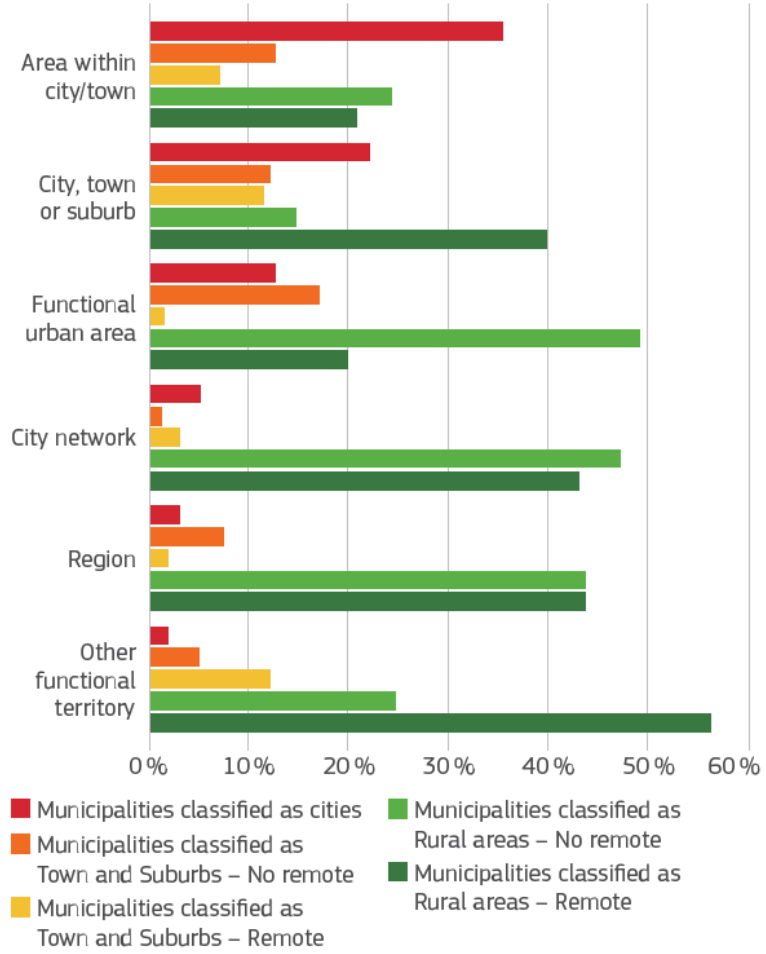
Territorial and Urban Development Strategies

Municipalities classified per territorial focus by DEGURBA, in %



- In the period 2014-2020, around 2 000 Sustainable Urban Development (SUD) and other territorial strategies were implemented under EU Cohesion Policy.
- They build on a place-based approach to deliver tailor-made responses to a variety of challenges such as social inclusion, environment protection, transport, innovation, etc.
- Strategies targeting FUAs have a high percentage of rural municipalities, including those classified as remote rural. This shows that the functional area approach can be used beyond metropolitan areas, as well as the importance of tackling urban-rural linkages.
- Urban-rural linkages can be strengthened by using EU urban and territorial strategies such as CLLD (Community Led Local Development) tools pecially suitable for small and medium-sized towns and settlements in rural regions.

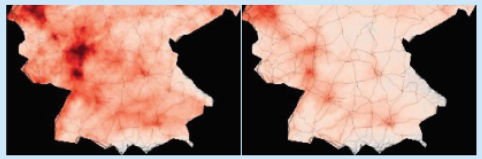
Authors of this section: Pertoldi, M., Fioretti, C. |

Case studies and projects

Box 1: Rural living lab in Frankfurt (DE). Commuting and the COVID-19 effects

The Rhine-Main Region is a metropolitan region of international importance in Germany. Green house gas emissions were greatly reduced in the region due to the COVID-19 pandemic lockdown, which caused a significant reduction in trips taken due to the extended and forced teleworking at the level of rural and city district. Figure 1 compares nitrogen dioxide emissions between March/April 2019 and 2020, and indeed **suggested that teleworkability of a regional labour market has an important and significant impact on the reduction of GHG emissions.** Those cities and districts with higher share of financial services and services for enterprises have a higher potential of teleworking than regions with more agriculture, local trade, crafts and industry. Teleworkability can be a potential supporting factor for public health and at the same time increasing resilience of local economies.

Figure 1: Images from Copernicus (Sentinel-5P, Atmospheric Monitoring Mission, 2020) to estimate the change of emissions in Southern Germany Bundeslaender.

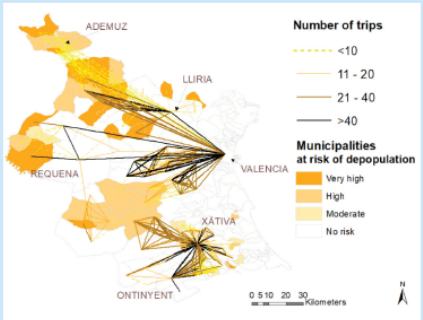


Source: ROBUST project. *https://rural-urban.eu*

Box 2: Rural public transport: case study of Valencia (ES)

An accessibility analysis was performed in the rural areas of the province of Valencia at the municipality level. The vast majority of the province's over 2.5 million inhabitants (95%) reside in urban areas, where the capital city of Valencia is the largest (>750000 inhabitants) on the Mediterranean coast. Overall, more than 90% of the population lives within 1 hour of a regional centre. Main findings reflect that **the frequency of trips by public transport per week is lower in rural areas at risk of depopulation compared to the most urban areas** where 18% has at least 21 trips and 14% has higher than 40 trips a week. In terms of travel times, public transport is slower than by car. Rural municipalities (e.g. Ademuz) live within 100 minutes by car from a hospital and 150 minutes by public transport.

Figure 8: Accessibility by public transport: frequency of trips and travel time, 2019.

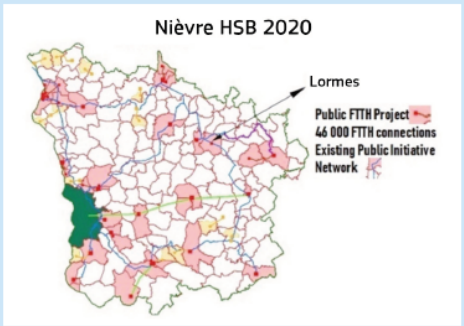


Source: Regional Government of Valencia on Territorial Policies, Public work and mobility.

BOX 3. National Initiative for digitalising in rural and remote areas (FR)

The Fund for a Digital Society has a key objective in France: **by 2022 all territories will be endowed with advanced digital infrastructures offering access to high speed broadband** (>30 Mbit/s). Three initiatives have been designed: 1) improvements in digital skills by using cheques bought by a sponsor and distributed to target beneficiaries; 2) a multi-stakeholder community interest cooperative providing networking and services to develop/deliver projects (for digital inclusion, digital hubs, especial trainings, etc.) and 3) a platform for good practices and tools to facilitate the implementation of local digital strategies.

Figure 11: The 'Nièvre HSB 2020' strategic deployment plan for the county's key rural service centres via the PIN.



Source: The European Network for Rural Development (ENRD) and *www.francethd.fr* in Lormes (pilot project).

BOX 4. Metabolism of cities

Metabolism of Cities is a global network of people working together on systemically reducing net environmental impacts of cities and territories. By trying to fully understand how energy and materials flow through a city, it becomes possible to leverage opportunities for improvements, to monitor the impact of interventions, and to see the relationships between different materials, sectors, people, and technologies. Among other projects, **CityLoop** aims to develop, implement, and replicate a series of innovative urban planning approaches and instruments, aimed at facilitating closing the loops of **urban material and resource flows and promoting the transition to a circular economy.**

Figure 12: Metabolism of Cities Data Hub serves as a central repository of currently 69 cities containing a wide variety of information for resources on a city.

Source: *https://data.metabolismofcities.org*

BOX 5. Pressure on peri-urban areas by industralisation: case study in Riga (LV)

Riga city serves as a major modern service centre to a still strongly industrialised hinterland, with a very sharp division between the city and its hinterland in terms of economic structure. **Strategic development initiatives for the entire metropolitan region could therefore aim to increase synergies** between the service sectors located in the city (financial, insurance, professional, scientific and technical, information and communication) and the more traditional production activities located in the environs (manufacturing, logistics and construction). Currently, land is mainly in private ownership, thus the **substantial brownfield areas would be an opportunity for economic development. Since the price of their development is high, it can only be utilised by high added value activities.**

Figure 14: Definition of the metropolitan region of Riga for the data analysis.

Source: ESPON MISTA (2020), *https://www.espon.eu/mista*

Authors and contributors : Perpiñá Castillo, C., Martínez-Ruiz, I., Esparcia, J., and Eurocities |

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The way forward

Identified challenges and opportunities in rural areas depend also on the interdependencies with cities (labour market, connectivity, demographic change, access to services, natural amenities or ecosystems services)	**EC Communication on the LTVRAs**	**Green and digital transition**	Both rural and urban areas have a key role to play in the transition to a green and sustainable Europe, but they will likely take different roles and supporting mechanism, based on preconditions and development outlooks.
It provides important impulses for integrated and sustainable territorial and local development, addressing, for instance, technological and demographic change, as well as the transformation and inclusive food systems.	**EU policies and place-based strategies**	**New tools, analytical methods and data**	Exploring the strength of the linkages throughout the urban-rural continuum, including the degree of economic, social and environmental development of the settlements and the spatial interactions networks between them.

Many thanks!

…Questions?

LUISA Territorial Modelling Platform:
https://joint-research-centre.ec.europa.eu/luisa_en

Urban Data Platform:
https://urban.jrc.ec.europa.eu/?lng=en&ctx=udp

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