

The ESCAPE project: recent perspectives on shrinkage

Gergely Tagai

(Centre for Economic and Regional Studies, Hungary)

ESPON Conference: Challenges and Opportunities for Shrinking Areas

Virtual

16th February 2022, 09:30-16:30 (CET)

Introduction

- Rural depopulation is not a new phenomenon, but recent deepening and spreading of population decline in rural areas raised interest at EU level and across the member states
 - Across Europe almost 60% Predominantly Rural or Intermediate NUTS 3 can be considered as shrinking - 40% of the area of the EU, 1/3 of its population.
- Population change is also widely regarded as reflecting the overall condition and “performance” of rural areas
- There is growing visibility of rural shrinking and increasing awareness of new opportunities associated with technological, economic and social changes, calling for:
 - Direct tailored policy responses aiming at mitigating or adapting to shrinking
 - Identifying shrinking rural regions and getting acquainted with their challenges
- ESPON ESCAPE project - European Shrinking Rural Areas: Challenges, Actions and Perspectives for Territorial Governance

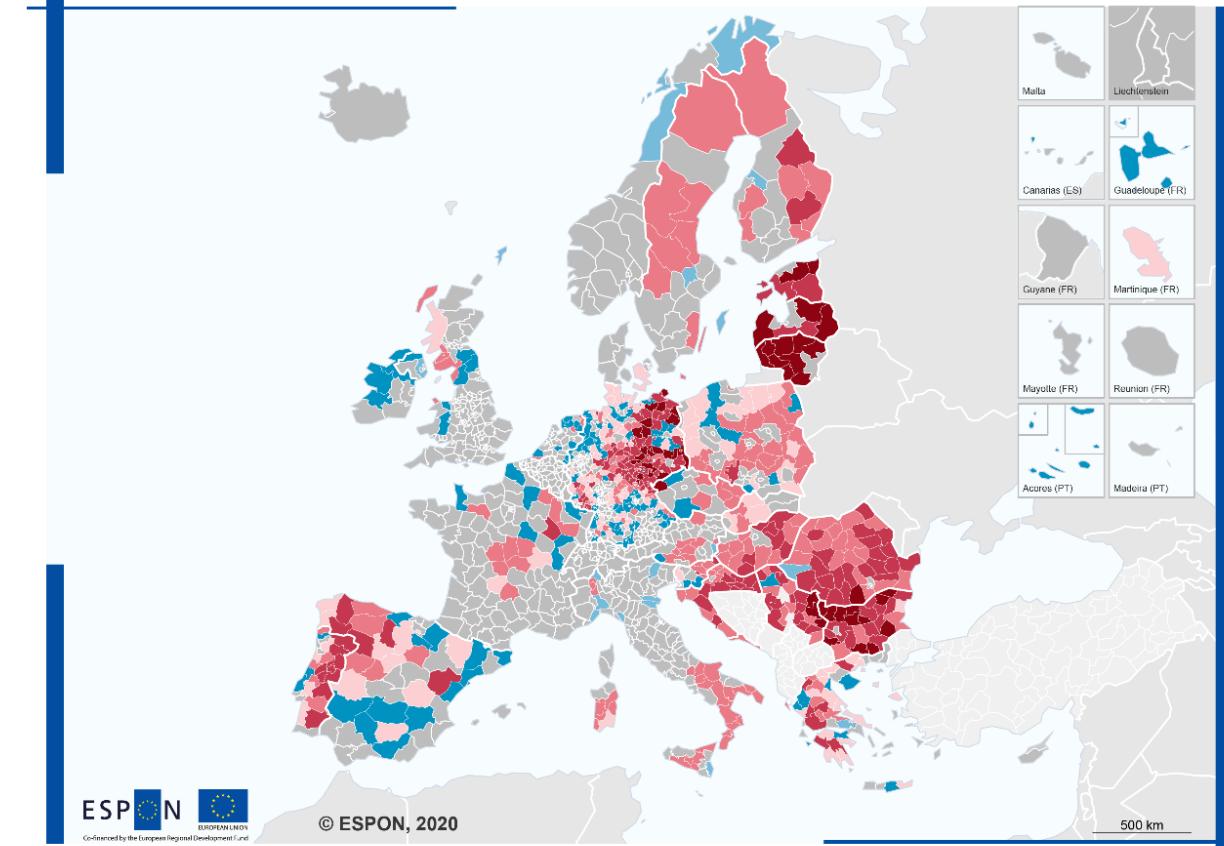
Conceptualization of shrinking

- For identifying shrinking rural regions, different approaches were followed:
 - Main concepts and theoretical approaches used in shrinking discourse
 - The experience of shrinking, historical influences
 - Specific regional aspects and narrative models of rural shrinking
- Population decrease is not equal with shrinking
- Population shrinking – substantial and sustained depopulation process (significant proportion of population loss over one generation – Grasland, 2008)
- Active shrinking, driven by current migration + legacy shrinking, caused by age structure effects
 - Active shrinking could be driven by urbanisation or globalisation
- Distinction between simple (demographic) and complex shrinking

A chronological approach to population shrinking

- Demographic changes over a two-generation time period – (1993-2033)
- Sustained demographic decline in the past or the projected future
- Reference year: 2013 (projection data from Eurostat is based on the year 2013)
- Classification based on the length of the population decrease (one or two generations) and the importance of population decline (intensity expressed in population change as a share of the total population)
- Intensifying processes of shrinking in ECE
- Projected future shrinking also in W Europe

Chronology of demographic shrinkage



Rural regions with population decrease in the period 1993-2033

- Experiencing population decrease in both periods 1993-2013 and 2013-2033 at severe annual average shrinking rates (<-1)
- Experiencing population decrease in both periods 1993-2013 and 2013-2033 at moderate annual average shrinking rate (-1 to -0,5)
- Experiencing population decrease in both periods 1993-2013 and 2013-2033 at modest shrinking rate (>-0,5)
- Experiencing population decrease only in the period 2013-2033 at modest shrinking rates (>-0,5)

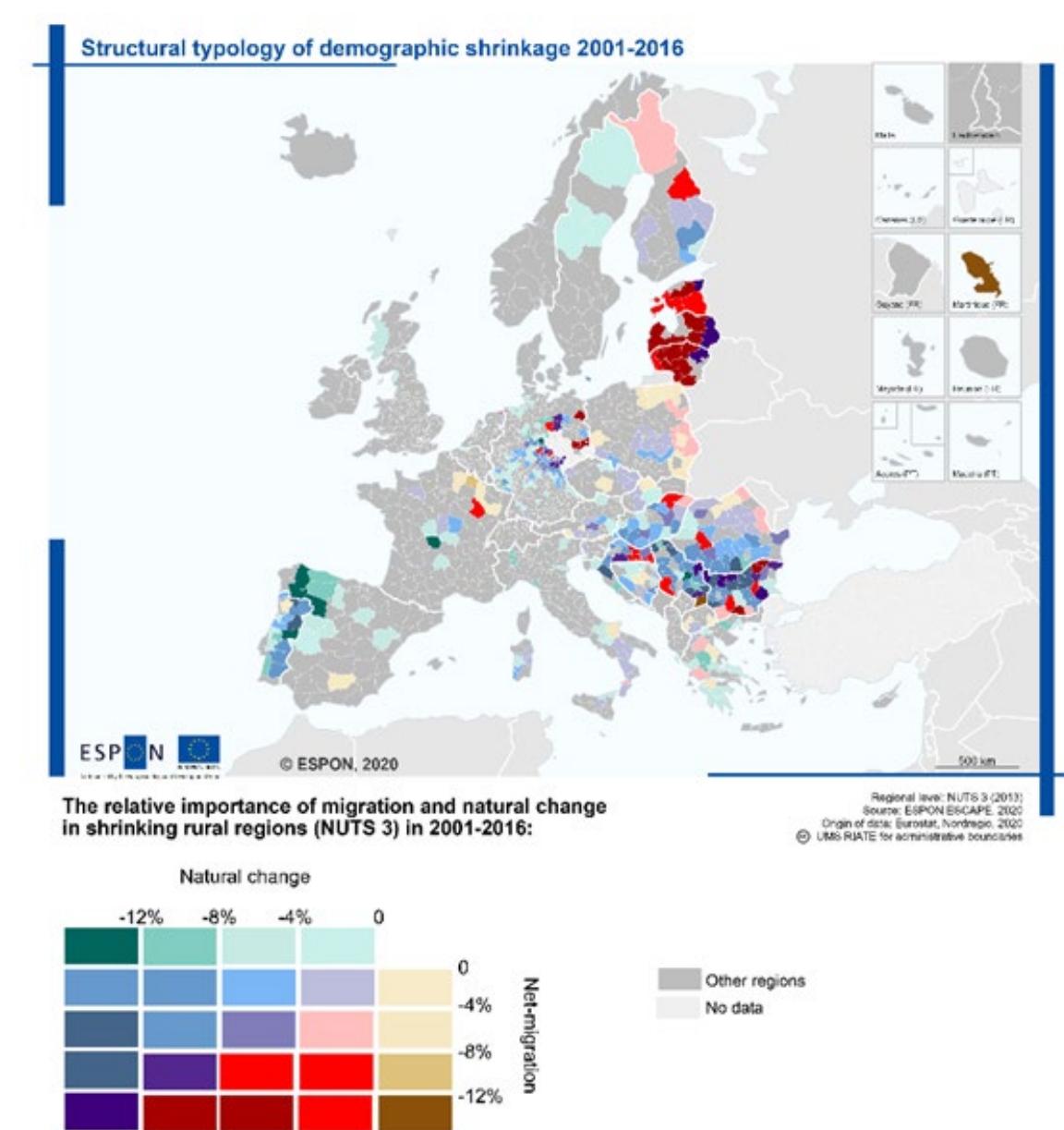
Rural regions with population increase in the period 1993-2033

- Experiencing population decrease in the period 1993-2013
- Experiencing population decrease in the period 2013-2033

No data
Other regions

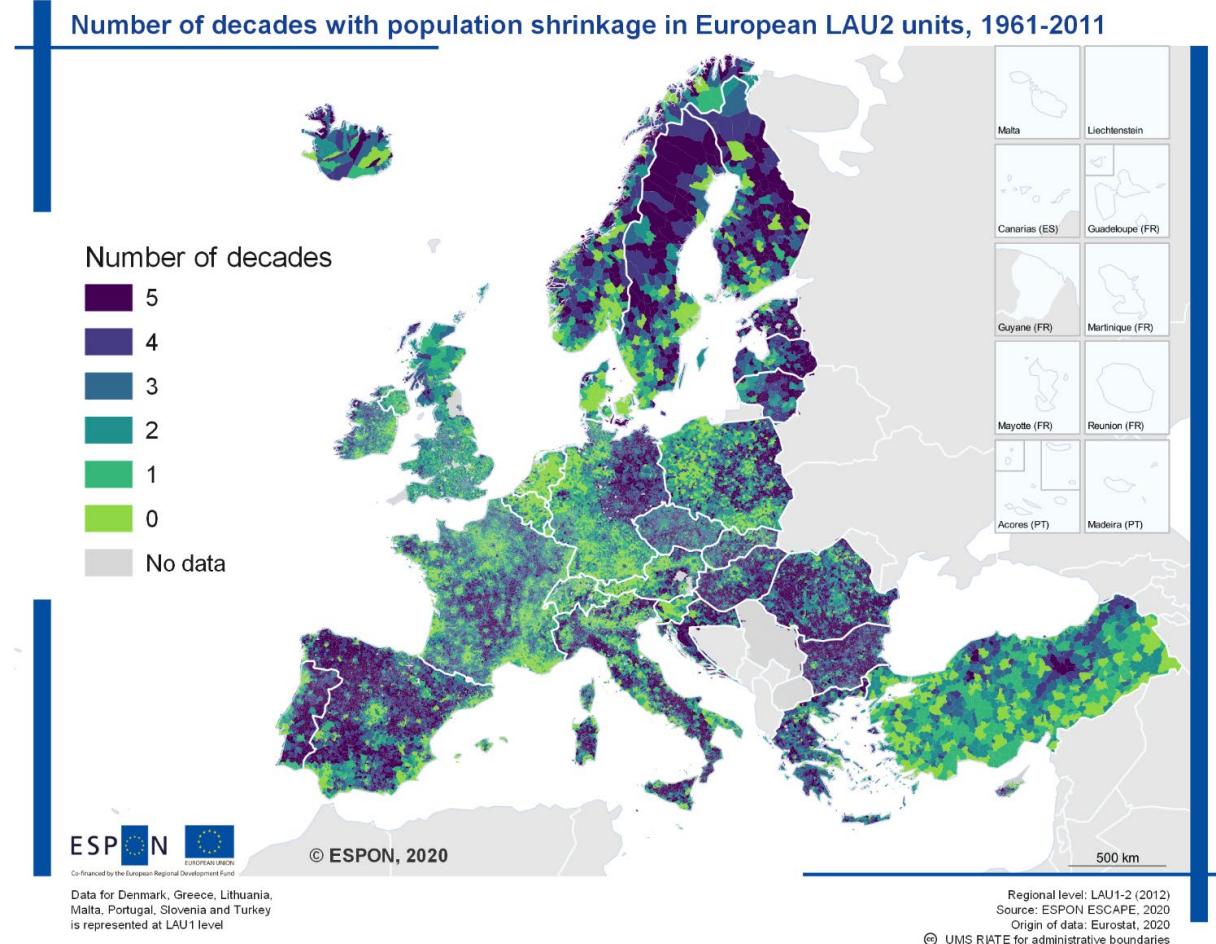
A structural approach to simple shrinking

- Information on the structural demographic components cause(s) of simple shrinking between 2001 and 2016
- Distinction between rural populations which face population decline due to their age structure and “natural decrease” (L) and those which are currently being depleted by out-migration (A)
- Legacy shrinking is more significant in Western (Northern, Southern) Europe
- Active+legacy shrinking in East-Central Europe
- Mostly active in the Baltic states and Poland (+ECE peripheries)



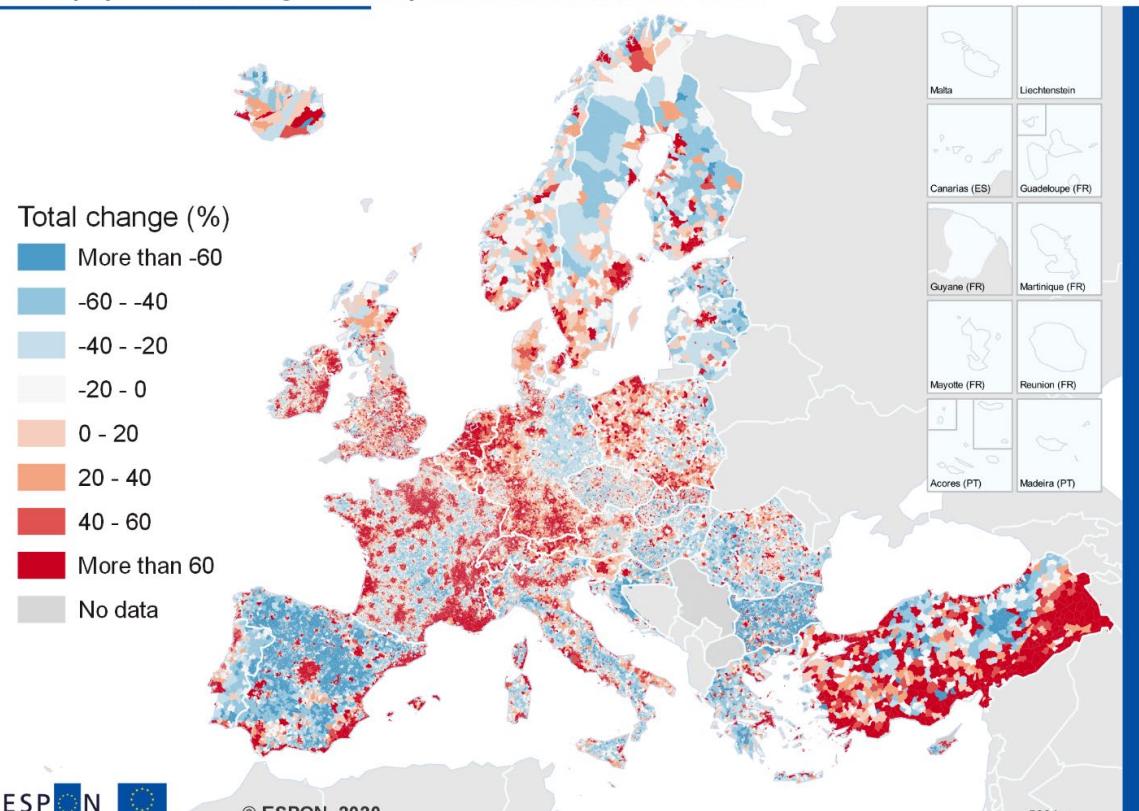
Diversity of shrinking at local level

- Historical LAU population dataset, based on population censuses from 1961 to 2011
- Meaningful measures focusing on temporal aspects, the extent of population loss and on the distribution of population dynamics indices within higher territorial structures
- Locating areas, the most vulnerable to challenges related to population decrease
- Long-term processes of demographic decline (especially in East-Central and Southern Europe) vs. dynamic urban zones mostly in Western and Central Europe
- Diversity within NUTS3 areas: manifold trends, internal inequalities, impact of settlement structure

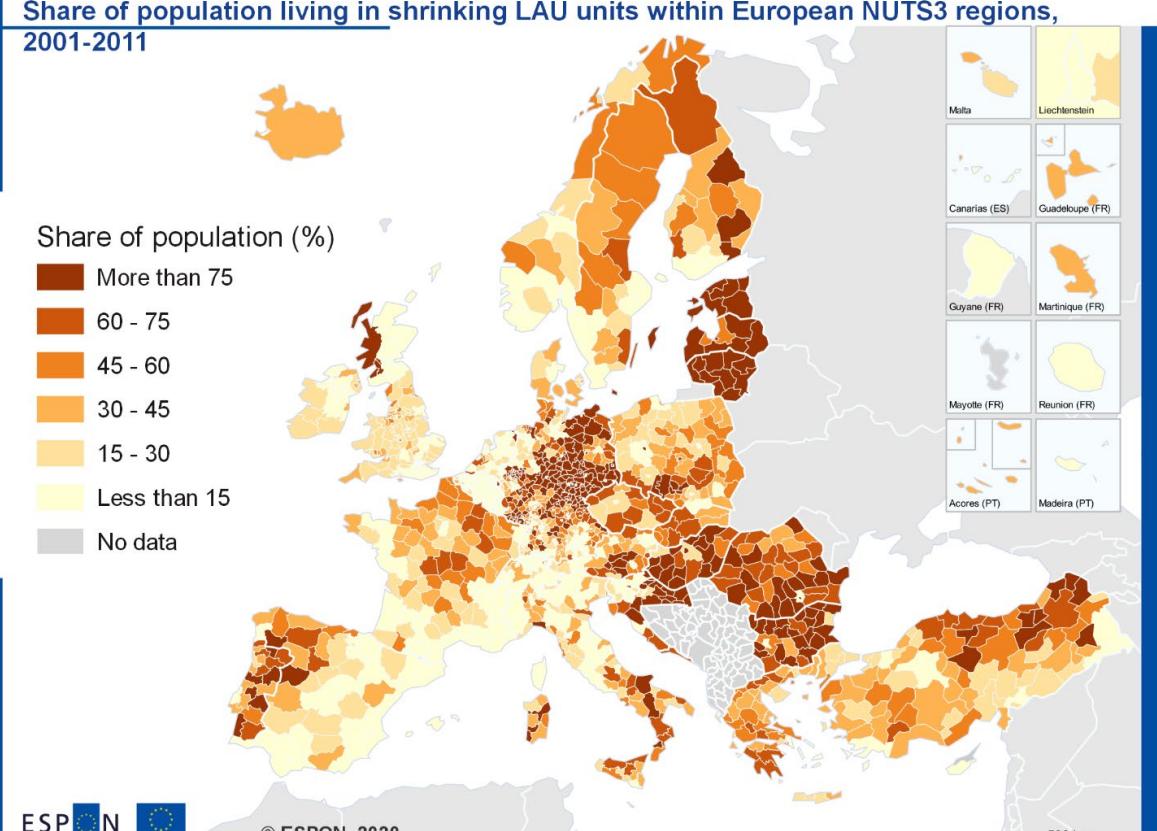


Diversity of shrinking at local level

Total population change in European LAU2 units, 1961-2011



Share of population living in shrinking LAU units within European NUTS3 regions, 2001-2011



Shrinking as a complex process

- (Simple) shrinking – a demographic process led by outmigration or natural decrease, but shrinking regions also face various economic and social challenges related to these
- “**Complex shrinking**” (ESPON ESCAPE, 2020) – a multi-faceted syndrome of decline, often but not necessarily leading to “vicious cycles” which tend to be self-perpetuating
- Casual narratives (dimensions) of shrinking:
 - **Economic restructuring:** change of agricultural structures (decrease of agricultural workforce), decline of extractive and manufacturing activities -> reduced basic public services, degradation of natural spaces, abandonment of settlements, weakening of local identity etc.
 - **Locational disadvantage:** “negative” locational characteristics (isolation, sparsity, lack of natural resources, poor quality agricultural land, proximity to borders etc.), which are perceived as hampering pathways to economic growth
 - **Peripherization:** consequence of macro-scale processes of spatial reorganisation of economic activity and globalisation (breaking connections with the centre, emergence of dependent areas)
 - **Disruptive events and political/systematic transitions:** impact of historical events or transitions (establishment and collapse of state socialism in CEE, Balkan Wars, EU integration process), persistent gaps in economic performance

Patterns of complex shrinking

- Data-driven cluster analysis to define a simplified, descriptive typology
- Embedding the chronological and structural dynamics of “simple shrinking”, reflecting the four “dimensions of rural shrinking”
- Cross-sectional variables (2016) and longitudinal indicators (2001-2016), Ward’s linkage hierarchical clustering algorithm

Clustering results (five classes)

1. Agricultural, very low-income regions with severe legacy and active shrinking

Declining due to economic disadvantage relative to national centres that fuels outmigration; lacking a strong sector to rely on. Poor accessibility; most severe rate of shrinking (18.7% between 2001 and 2016); largest primary sector of all clusters; lowest GDP per capita (43% of the EU GDP) converging at the EU level (9.7%) but diverging internally

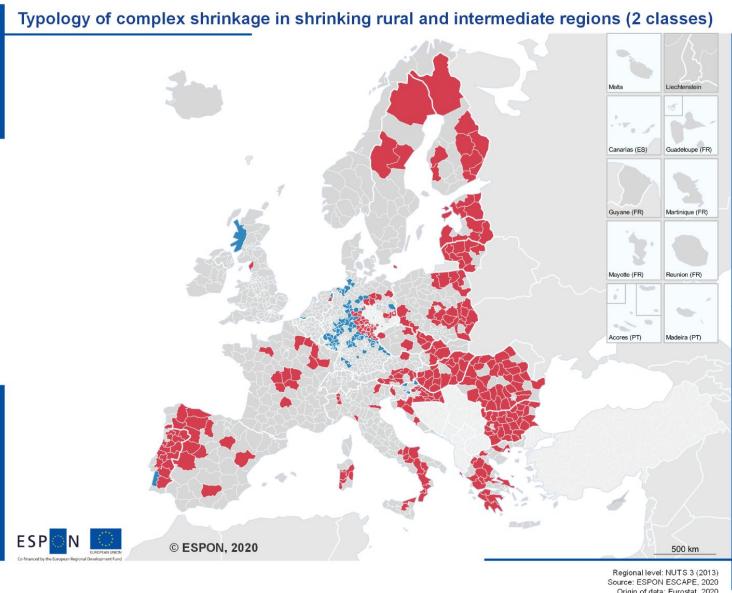
Typology of complex shrinkage in shrinking rural and intermediate regions (5 classes)



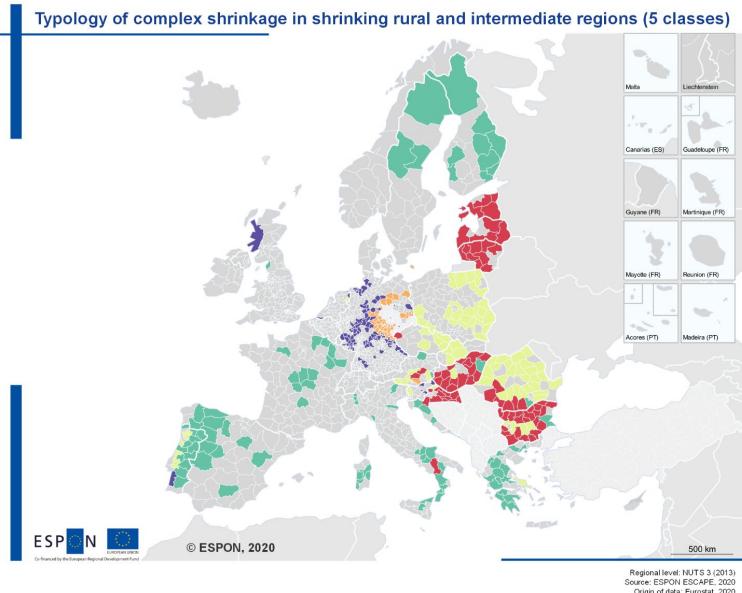
Category	Sub-category		
Geography	Territorial typologies		
	Accessibility, and its change		
Demography	Internal population distribution		
	Demographic change (“simple shrinking”)		
Economy	Gross value added composition by sector, and its change		
	Employment composition by sector, and its change		
	GVA per working unit by sector, and convergence at national level		
	GDP per capita (PPS) and investments		
Environment	Land use, erosion, and their change		
Policy	EU funds payments		
3	Agro-industrial, low income regions with moderate, mostly legacy shrinking	78	20.4
4	Servitised, mid-low income regions with moderate legacy shrinking	94	24.5
5	Servitised, mid-income regions with moderate, mostly legacy shrinking	99	25.9

Alternative cluster solutions

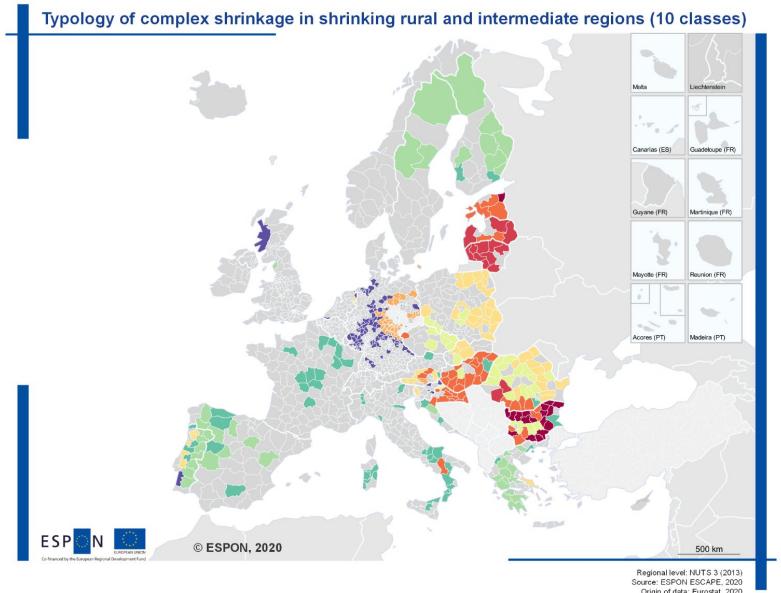
Two clusters



Five clusters



Ten clusters



Centre vs. periphery

Centre vs periphery, East vs.
West

Diverse centres, diverse
peripheries

Clustering results

2. Industrial, mid-low income regions with severe legacy and active shrinking

Catching up through economic restructuring which is reducing low-productivity jobs but also damaging an already weak population structure. Good accessibility; severe shrinking (15.1%); large secondary sector (38%); relatively high GDP, converging both internally and at EU level

3. Agro-industrial, low income regions with moderate, mostly legacy shrinking

Comparatively weak at national level but more central and relatively stronger than the first cluster. Mid-low accessibility; modest shrinking (4.7%); huge agricultural employment (18%); GDP converging fast at the EU level (13.1%) but slightly diverging internally

4. Servitised, mid-low income regions with moderate legacy shrinking

Geographic specificities and week industrial sector; healthy enough economy to prevent massive outmigration but worsening, and “distorted” population structures. Poor accessibility; modest shrinking (5.4%); large service and public sectors (42% and 28%); mid-low GDP diverging at EU level (7.9%)

5. Servitised, mid-income regions with moderate, mostly legacy shrinking

Robust still weaker than national average, with “distorted” population structures and low fertility. Good accessibility; modest shrinking (4.9%); growing tertiary and public sectors; average GDP (103%)

Discussions and conclusions

Simple Shrinking

- Diversity of shrinking rural regions across Europe:
 - The majority of shrinking rural regions are expected to continue being affected by population losses, and some other rural regions are expected to start shrinking in the future
 - The intensity of demographic shrinkage varies considerably
 - Rural regions have shrunk due to either active shrinkage or legacy shrinkage; or both
 - Mapping at regional level (NUTS 3) hides diverse local contexts.
 - Many NUTS 3 regions classified as rural or intermediate, although shrinking overall, contain more dynamic towns or villages. Other regions which are classified as growing, contain enclaves of shrinking. The exercise at LAU level contributes by bringing some evidence on this specific point

Discussions and conclusions

Complex Shrinking

- Complex shrinking is not necessarily linked to economic decline, but to relative economic weakness, and geographic disadvantages such as peripherality or low accessibility
- The East-West and the centre-periphery cleavages at continental level are still persisting despite more than one decade of joint EU membership
 - Rural Mediterranean and Nordic regions share similar peripherisation dynamics
 - Rural Bulgaria and the Baltics vs Eastern Germany vs other Eastern present clear specificities
- Active (migration) rather than legacy shrinking make the most difference
- The focus on convergence towards EU-level GDP has been hiding growing national disparities, especially in monocentric post-socialist countries
- EU Cohesion Policy should account for macro-scale dynamics underlying rural shrinking to improve the targeting of measures for mitigating or adapting to this phenomenon
 - Improved accessibility and higher financial support not enough to counteract shrinking

Acknowledgements and references

- The research was carried out as a part of ESPON 2020 Applied Research project „European Shrinking Rural Areas: Challenges, Actions and Perspectives for Territorial Governance” - (ESCAPE)
- See the full report with project results:
 - ESPON ESCAPE Main Final Report at
<https://www.espon.eu/sites/default/files/attachments/ESPON%20ESCAPE%20Main%20Final%20Report.pdf>
 - Detailed analysis on complex shrinking: ESPON ESCAPE Final Report Annex 02 - Measuring mapping and classifying simple and complex shrinking at
<https://www.espon.eu/sites/default/files/attachments/ESPON%20ESCAPE%20Final%20Report%20Annex%2002-%20Measuring%20mapping%20and%20classifying.pdf>
- Special acknowledgements to Julien Grunfelder (Nordregio) and Simone Piras (James Hutton Institute), co-authors of ESPON ESCAPE Final Report Annex 02