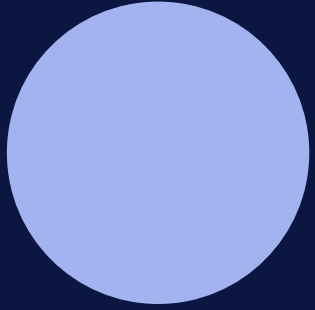


# Territorial Challenges in Europe: Data and Evidence

Martin Gauk, ESPON EGTC

# What ESPON does?





# Challenges

# Key territorial challenges

## Territorial **Fragmentation**...

- ...a cultural dimension (e.g. **diversity**)
- ...an social an economic dimension (e.g. **disparities**)
- ...a political dimension (e.g. **discontent**)



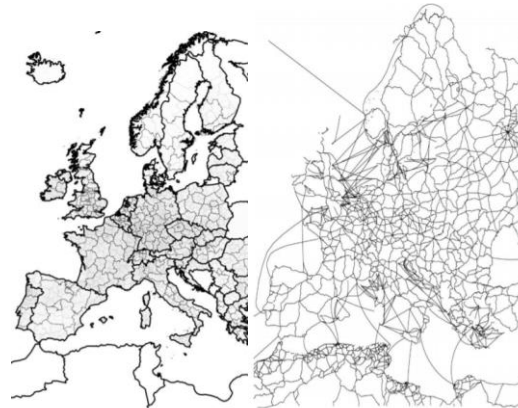
## Network **Interdependencies**...

- Subverted distances: Proximity in terms of “**connection**”
- Increasing flows, **spill-overs and externalities**
- **Network industries create “new territorialities”** (e.g. global digital markets)



## **Functional mismatch** at all scales

- ...administrative dimension (e.g. **delivery**)
- ...functional dimension (e.g. **demand**)



# Key territorial challenges

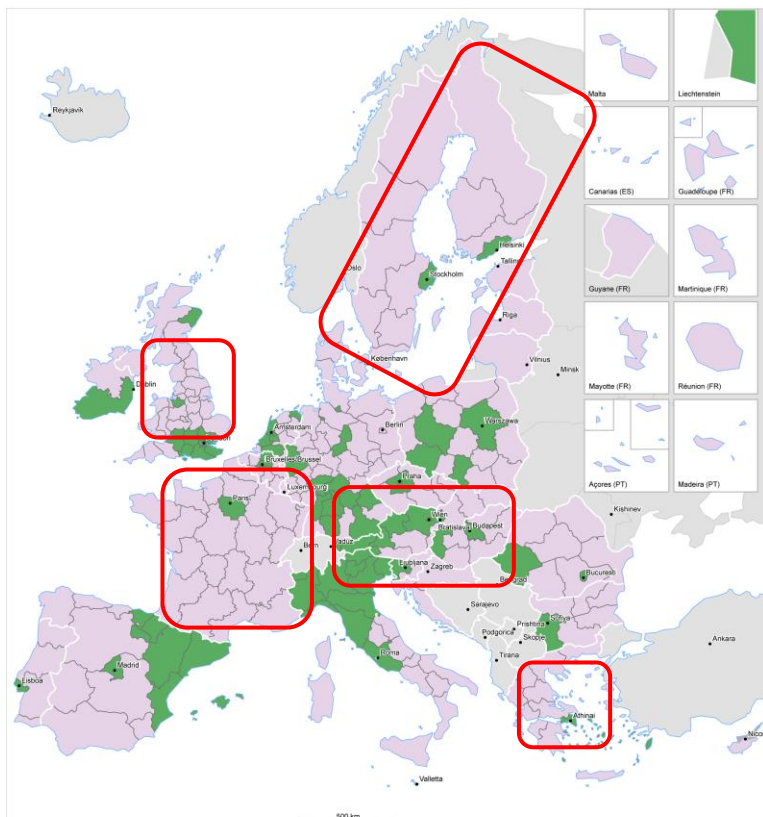
## Territorial **Fragmentation**...

- ...a cultural dimension (e.g. **diversity**)
- ...an social an economic dimension (e.g. **disparities**)
- ...a political dimension (e.g. **discontent**)



# Economic disparities, geographies of the EU discontent and the revenge of the "places that do not matter"

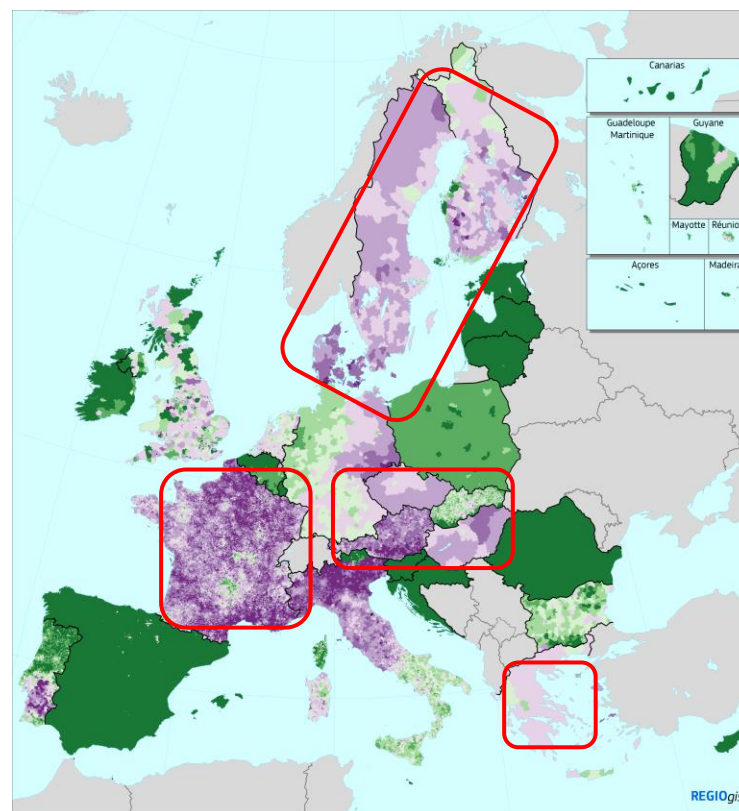
1990-2014/2018



## Under- and overperformers

- Underperformer
- Overperformer
- no data

Regional level: NUTS 2 (2013)  
Origin of data: DG REGIO, EUROSTAT, ESPON;  
ESTAT GISCO for administrative boundaries



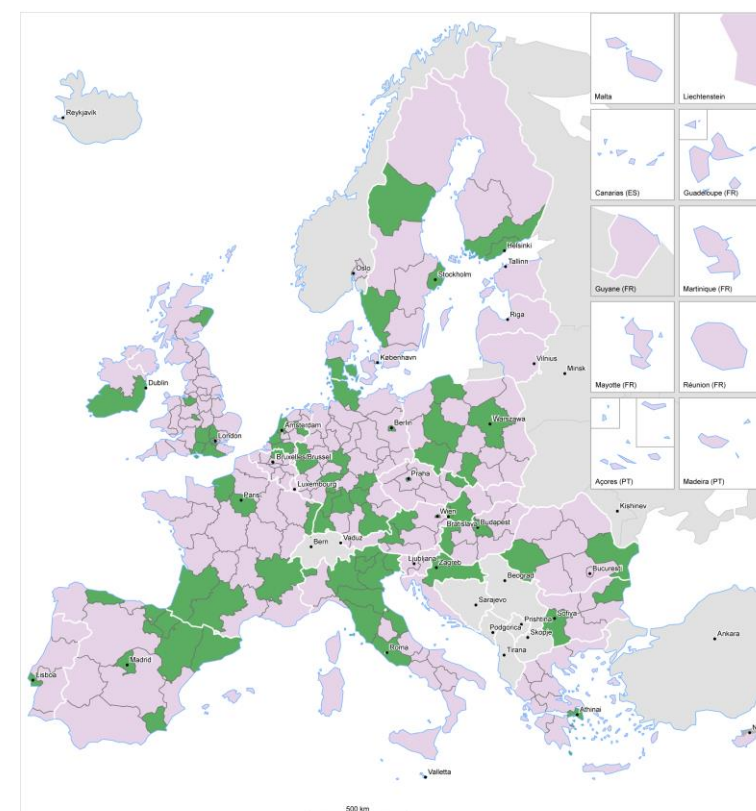
## Minimum share of votes for parties (strongly) opposed to European integration, 2013-2018

- 0.0 - 3.0
- 3.1 - 6.5
- 6.6 - 10.0
- 10.1 - 13.4
- 13.5 - 20.0
- 20.1 - 27.0
- 27.1 - 35.0
- 35.1 - 100.0

Sources: national authorities, CLEA, Chapel Hill Expert Surveys 2014 and 2017, EuroGeographics, DG REGIO  
Election years:  
2018: IT  
2017: BG, CZ, DE, FR, MT, NL, AT  
2016: IE, ES, HR, CY, LT, RO, SK  
2015: DK, EE, EL, PL, PT, FI, UK  
2014: BE, LV, HU, SI, SE  
2013: LU  
EU-28 average = 13.4%

A. Rodriguez-Pose, et al 2018

2030



## Under- and overperformers

- Underperformer
- Overperformer
- no data

Regional level: NUTS 2 (2013)  
Origin of data: DG REGIO, EUROSTAT, ESPON;  
ESTAT GISCO for administrative boundaries

# Key territorial challenges

## Network **Interdependencies...**

- Subverted distances: Proximity in terms of “**connection**”
- Increasing flows, **spill-overs and externalities**
- **Network industries create “new territorialities”** (e.g. global digital markets)





## Interdependencies: from territorial "borders" to "hub and spoke" networks"



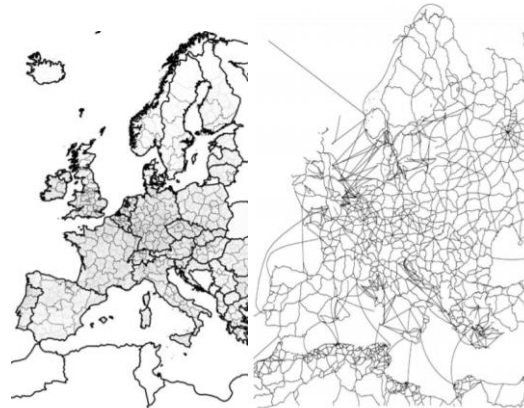


# Key territorial challenges

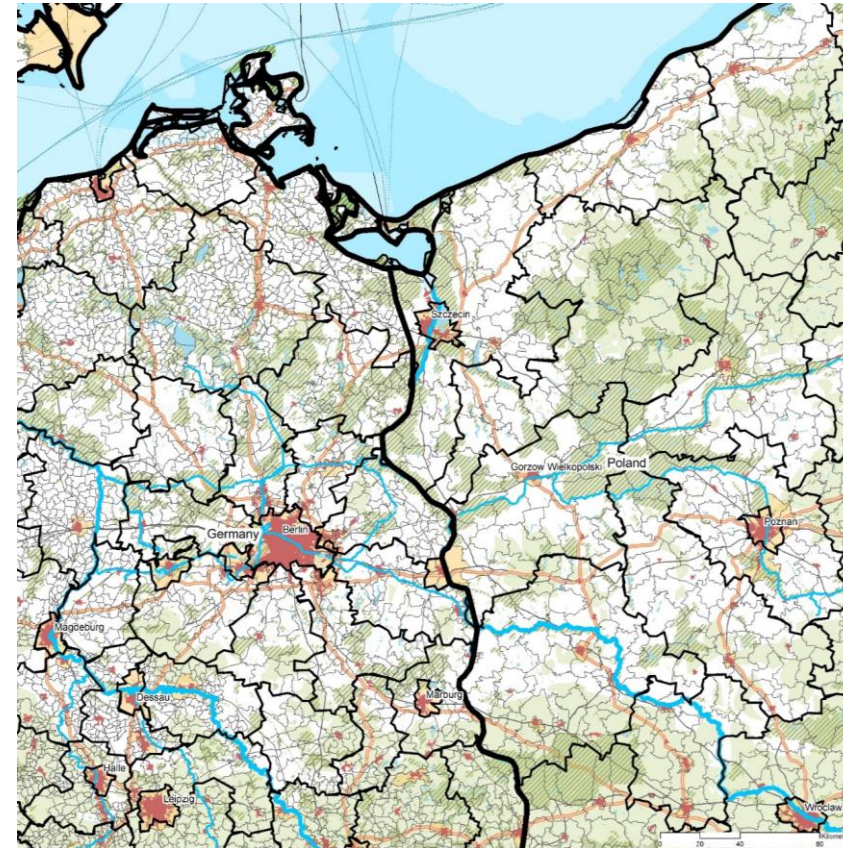
## Functional mismatch

at all scales

- ...administrative dimension (e.g. **delivery**)
- ...functional dimension (e.g. **demand**)

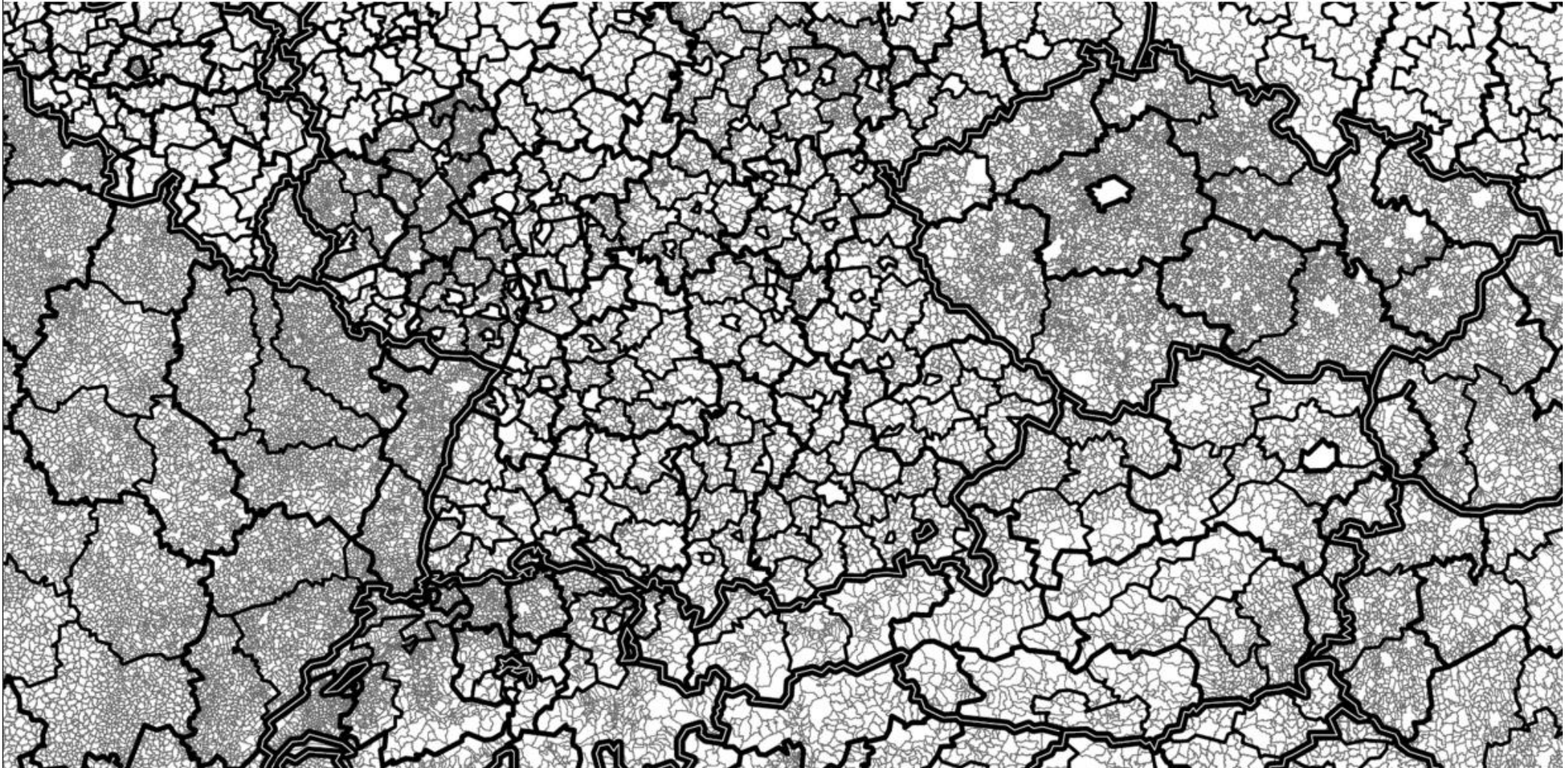


## Administrative fragmentation and the failure to respon and deliver: a mismatch between "functions" and "jurisdictions"

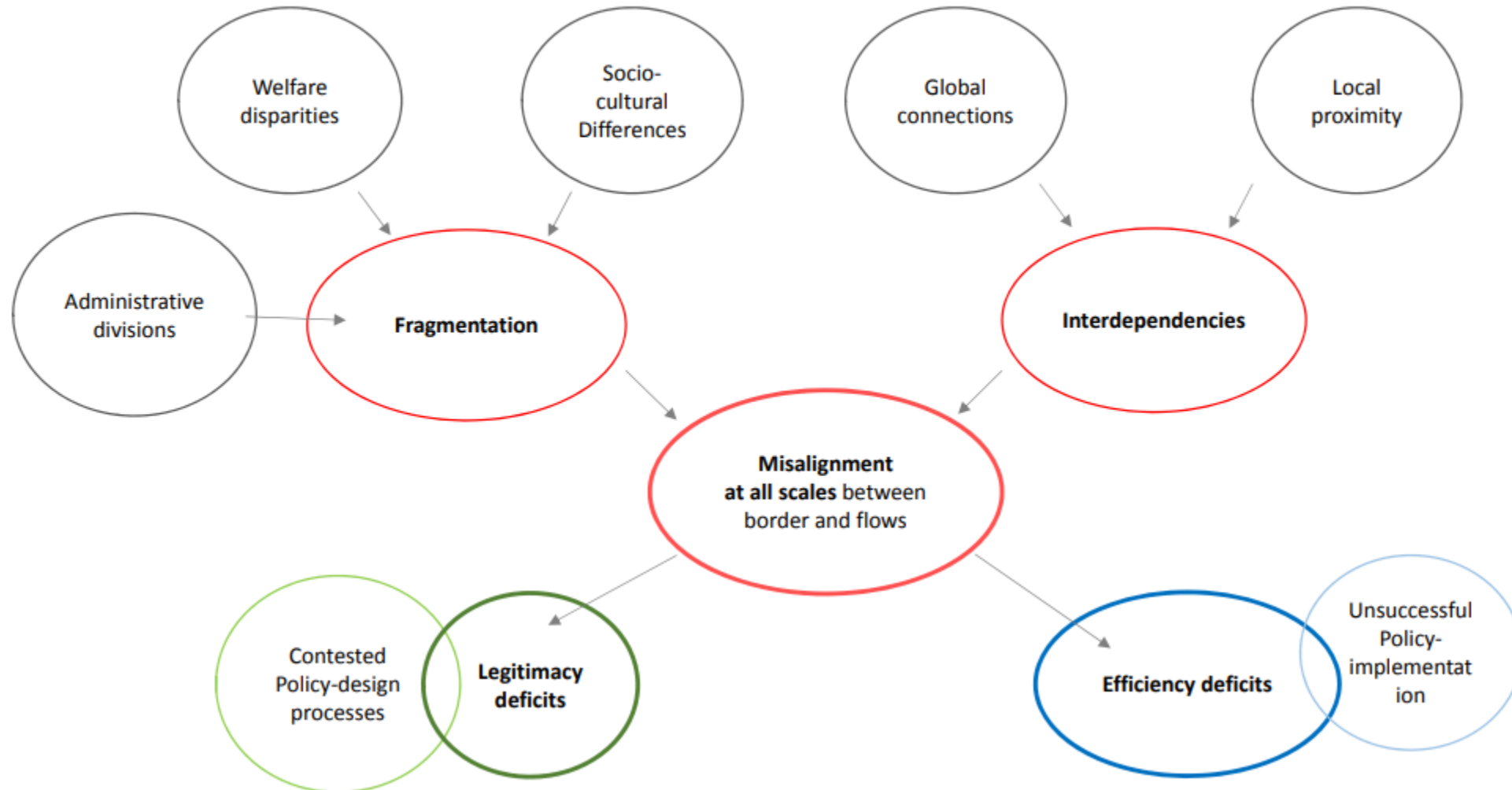




## Interdependencies: from territorial "borders" to "hub and spoke" networks"



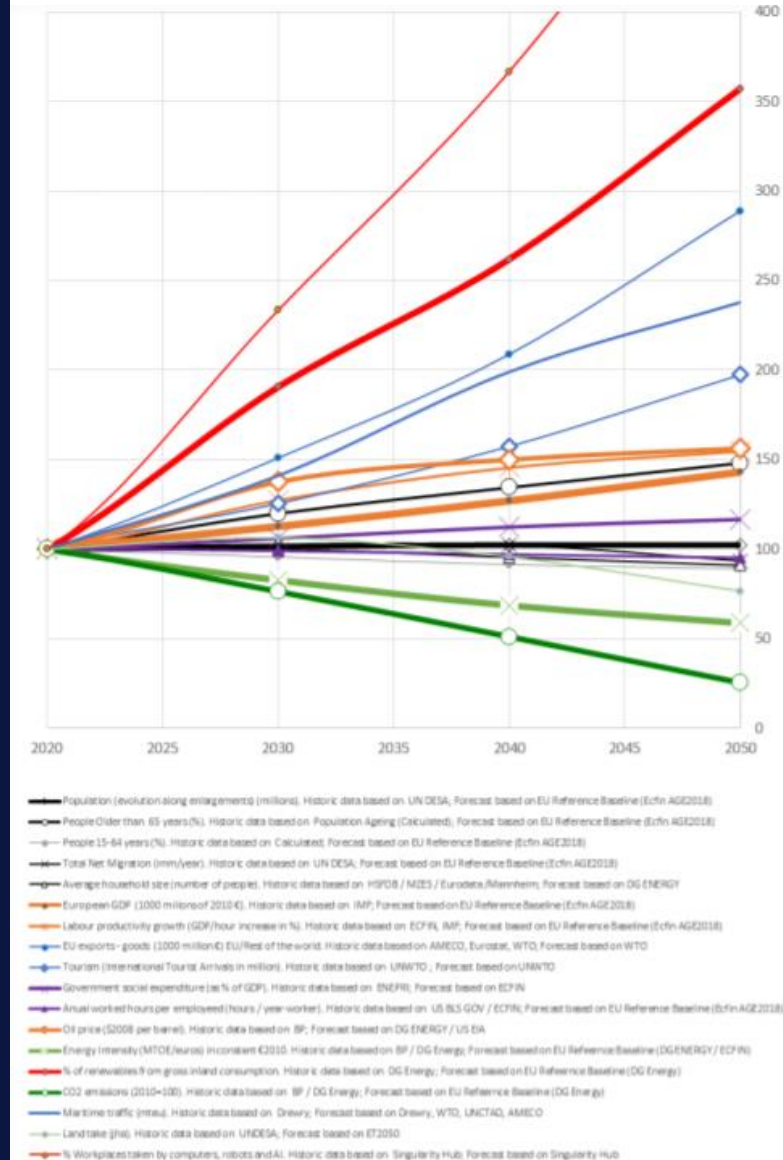
# Key territorial challenges



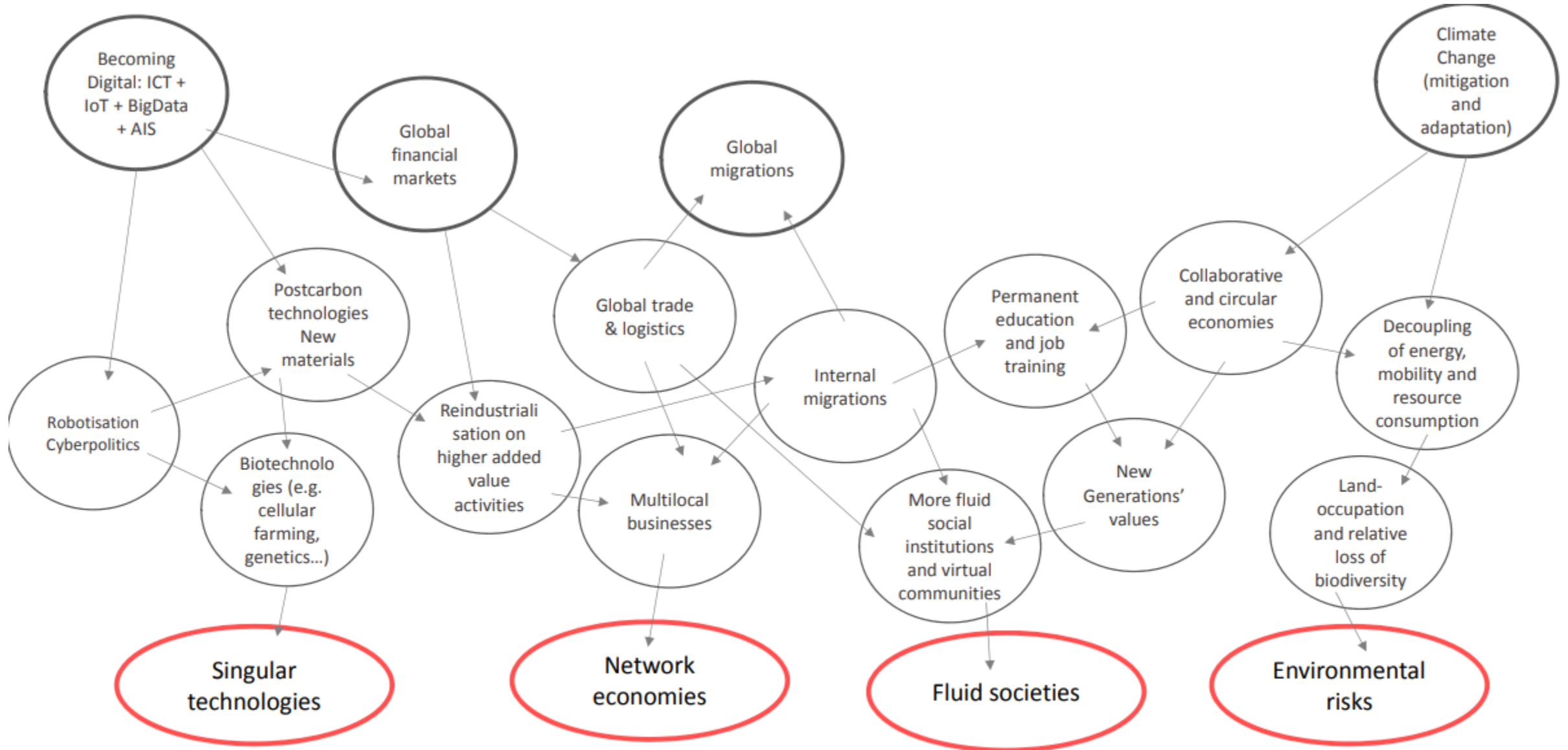


# 2

## Trends and disruptions impacting territorial challenges



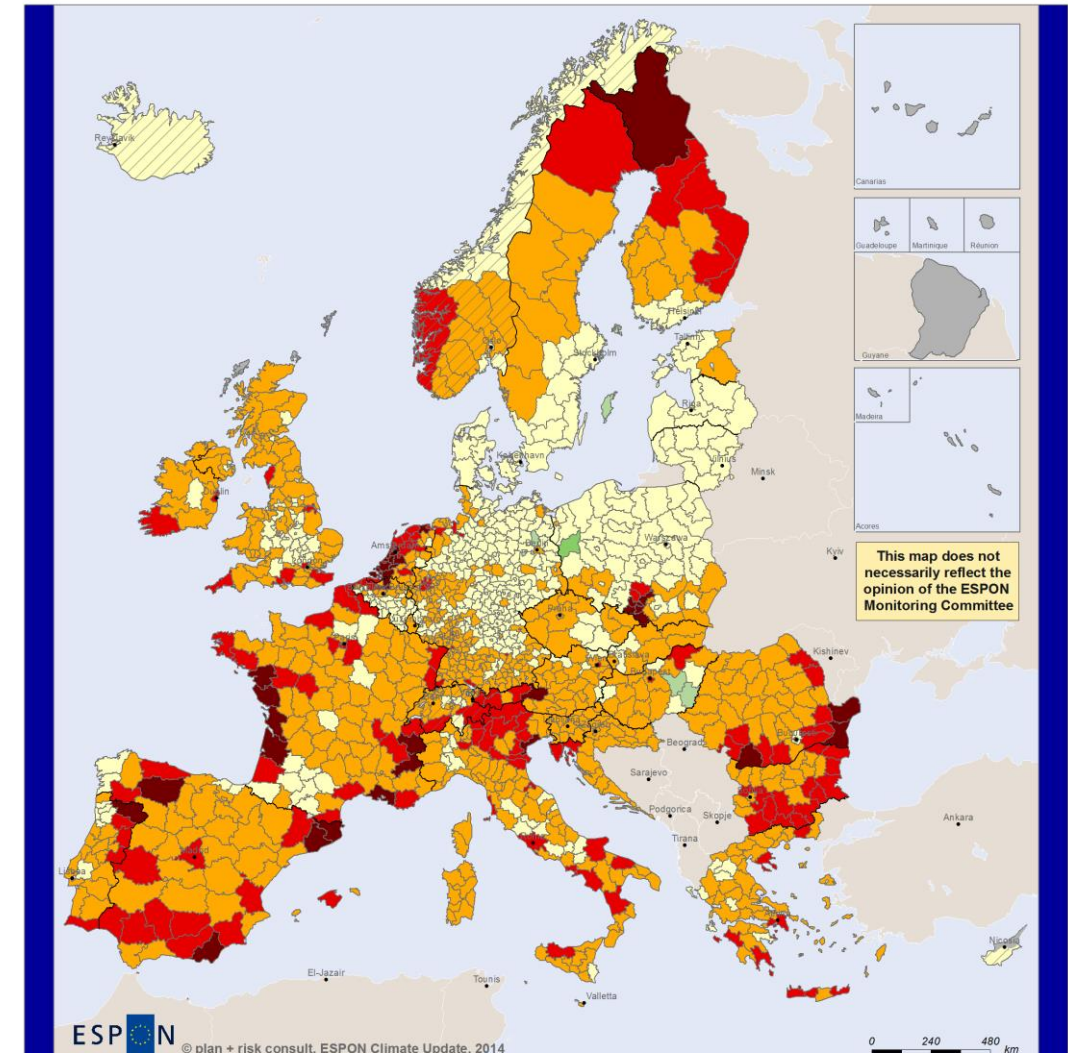
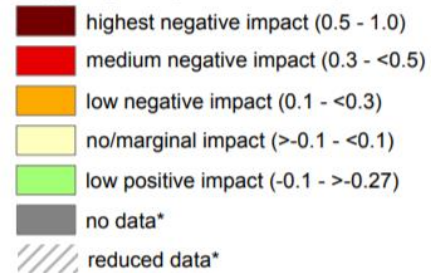
# Living in "Pervasive Uncertainty"



# Environmental trends

- Pathogens resistant to antibiotics
- Consensus on Climate Change (climate change vulnerability (adaptation, mitigation))
- Decoupling of energy, mobility and resource consumption from growth
- Cellular agriculture and biomedicine beyond limits
- Electrification of energy markets

## Aggregate potential impact of climate change

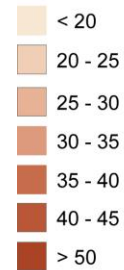


# Social trends

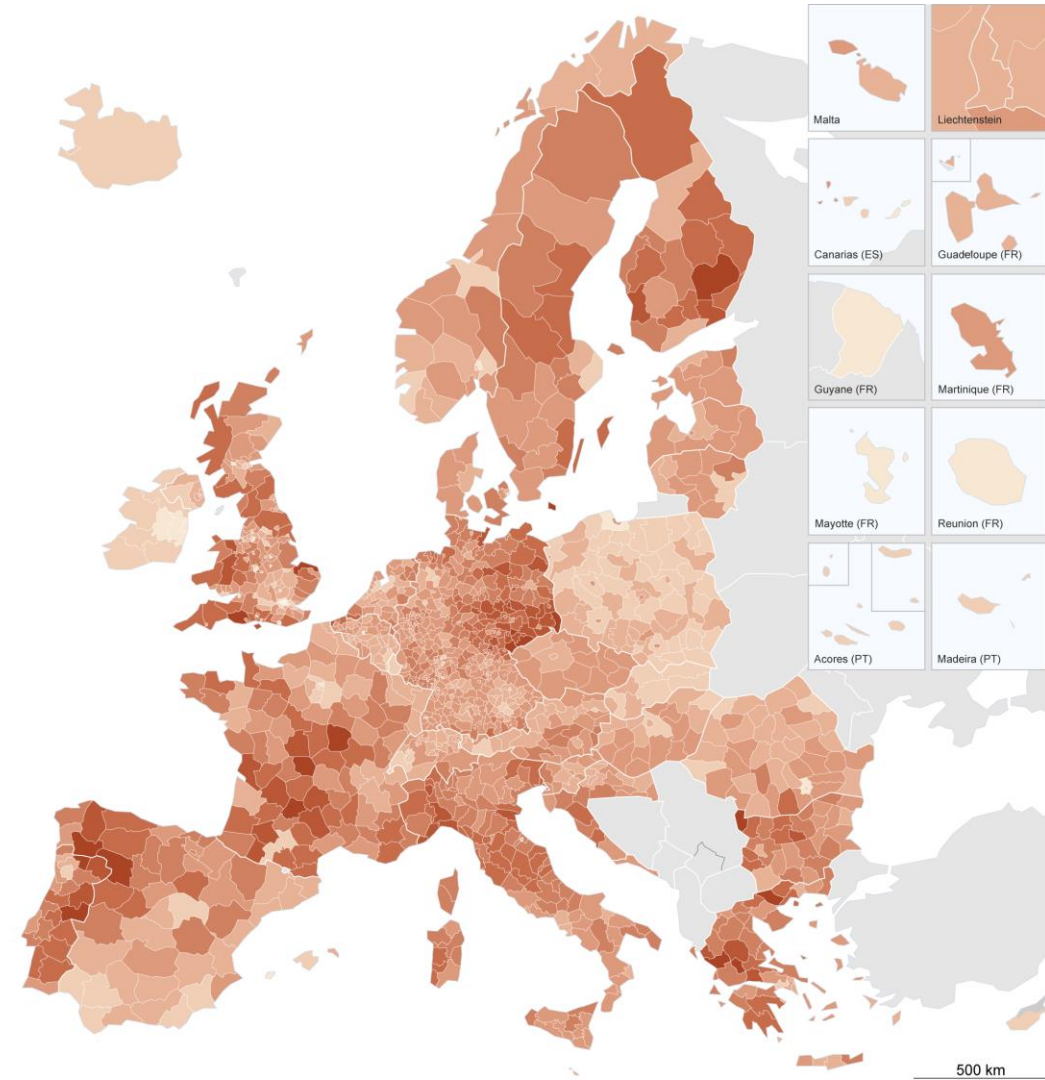
- Ageing and increasing dependencies
- Increasing external migrations and temporary internal migrations
- Concentration and dispersion processes of internal migrations
- More fluid social institutions. Virtual and project-oriented communities
- New Generation's values: 'place attachment' vs 'global vocation'
- Social disparities because of education and job training
- Discontent, growing euroscepticism/anti-globalism

## Population ageing

Old age dependency ratio (%), 2019



Regional level: NUTS 2 (2013)  
Origin of data: EUROSTAT, 2020;  
ESTAT GISCO for administrative boundaries



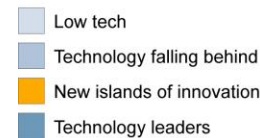


# Technological trends

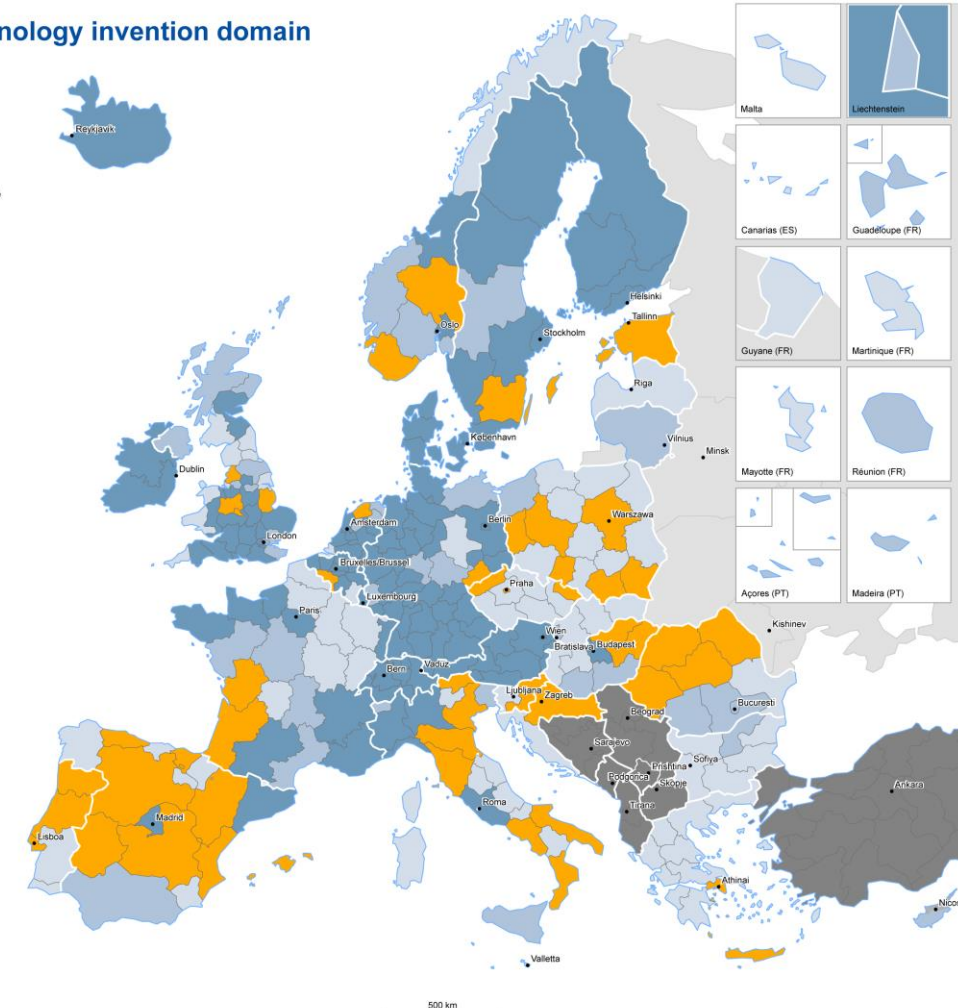
- Almost all citizens are now internet users
- New technologies (Automatisation and robotics, IoT, AI, Big Data, bio and nanotechnologies, 5G) are driving the 4th industrial revolution
- New dilemmas: Overview vs surveillance, participatory (democratic) immediacy or noise, no-one left behind
- Technological leapfrogs
- Challenges with digital monopolies
- China's new Digital Silk Road

### Spatial trends in the 4.0 technology invention domain

### Taxonomy of 4.0 technology inventing regions, 2010–2015



Regional level: NUTS 2 (2013)  
Origin of data: OECD-REGPAT, ORBIT, EUROSTAT, 2019  
ESTAT GISCO for administrative boundaries

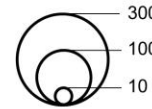


# Economic trends

- 2008 impacts
- Increase in public debt
- Subverted distances: "glocal" polarisation
- "Multilocal" businesses: hyperconnected and further decentralised activities
- Global trade becoming more relevant than European trade
- Reindustrialisation in European regions
- Collaborative economies
- Circular economy

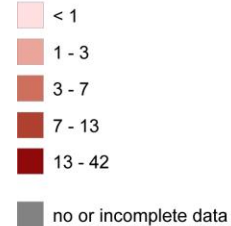
## Extra-European FDI inflows

Cumulative deal value of extra-European FDI, (billion EUR), 2003–2015

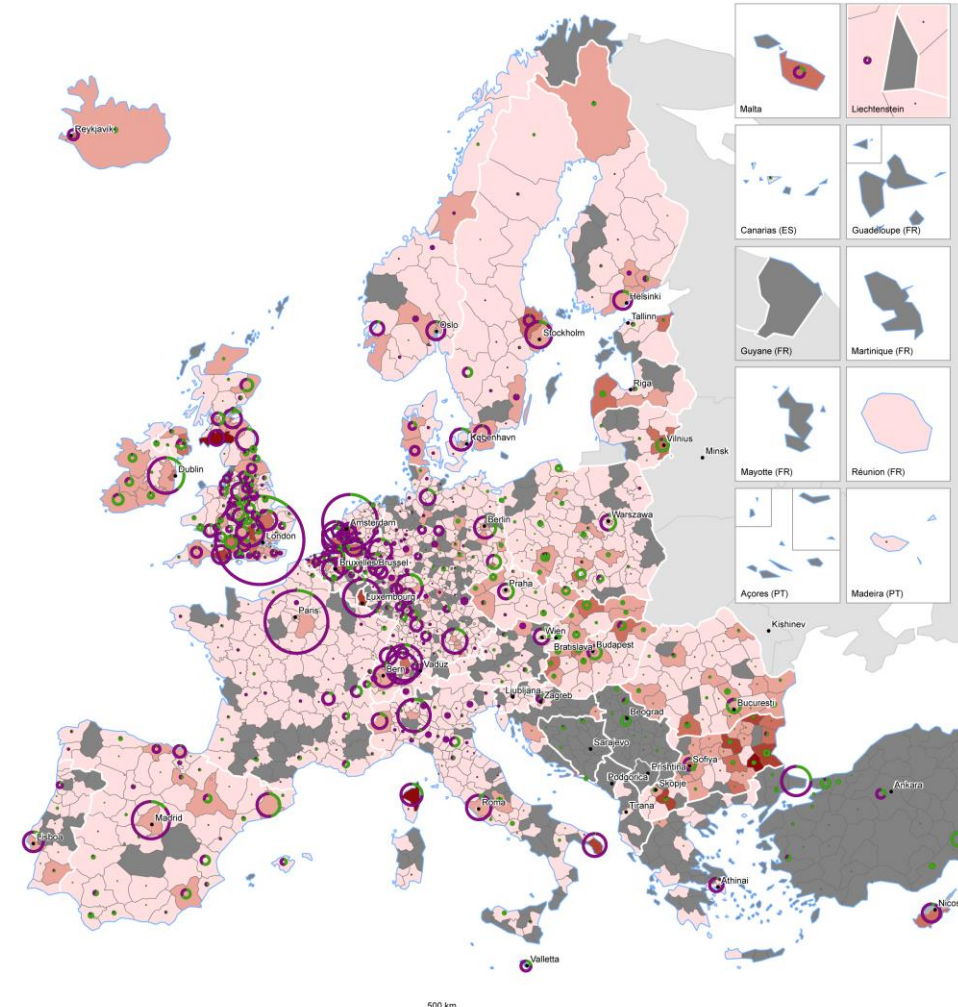


— Greenfield investments  
— Mergers and acquisitions

Extra-European FDI as a % of GDP, 2003–2015



Regional level: NUTS 3/Metropolitan regions (2013)  
Origin of data: Copenhagen Economics, BVD's Zephyr, Financial Times, ESPON, 2016; ESTAT GISCO for administrative boundaries



# Governmental trends

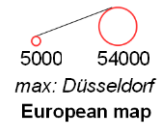
- Increasing problems of efficiency and legitimacy in governments
- New models of citizen participations
- New geopolitics, global agreements
- Increasing security concerns
- More interdependencies between regions

# Wild cards

- 2008 economic crisis
- Migration crisis
- Brexit
- COVID-19 pandemic and economic crisis

## Asylum applications, 2016

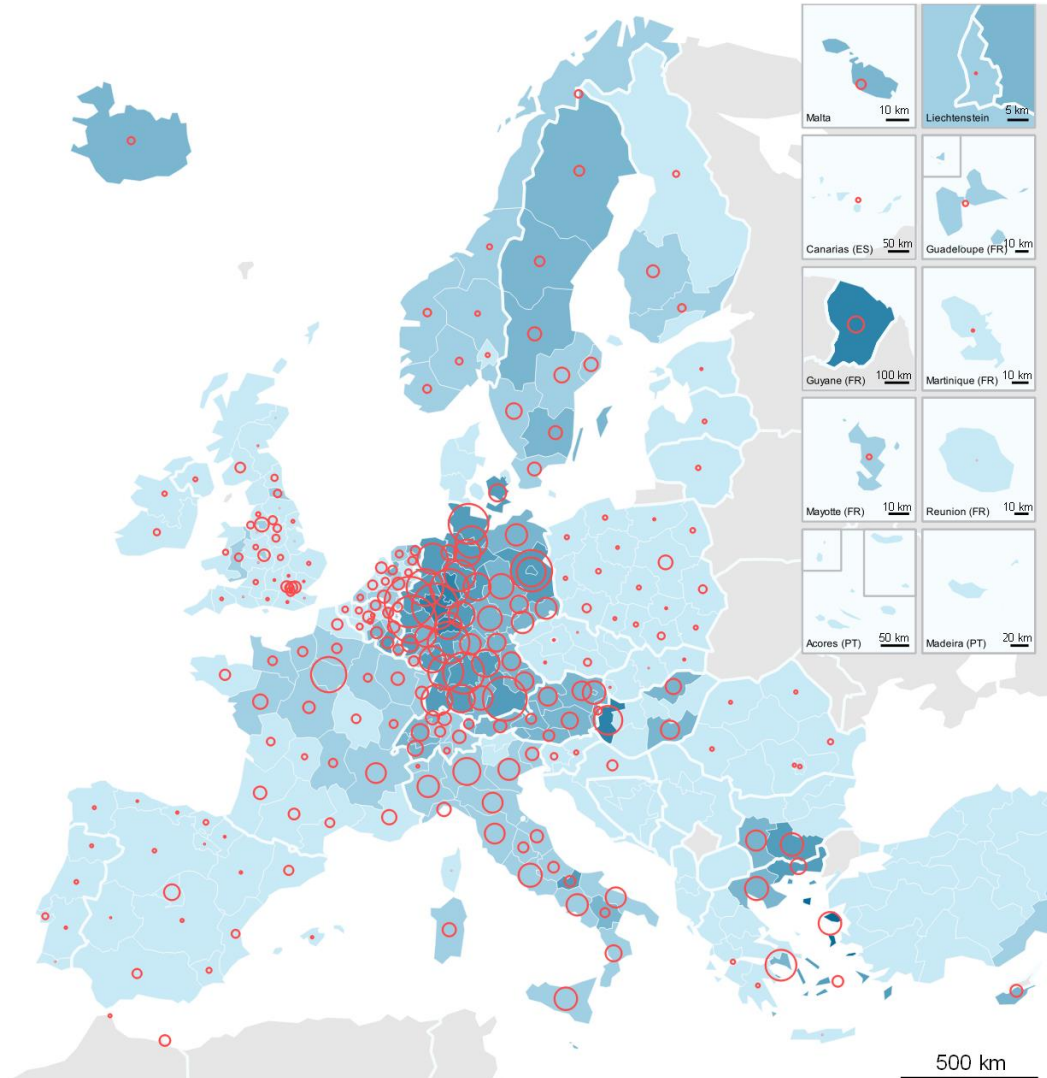
### Asylum applications



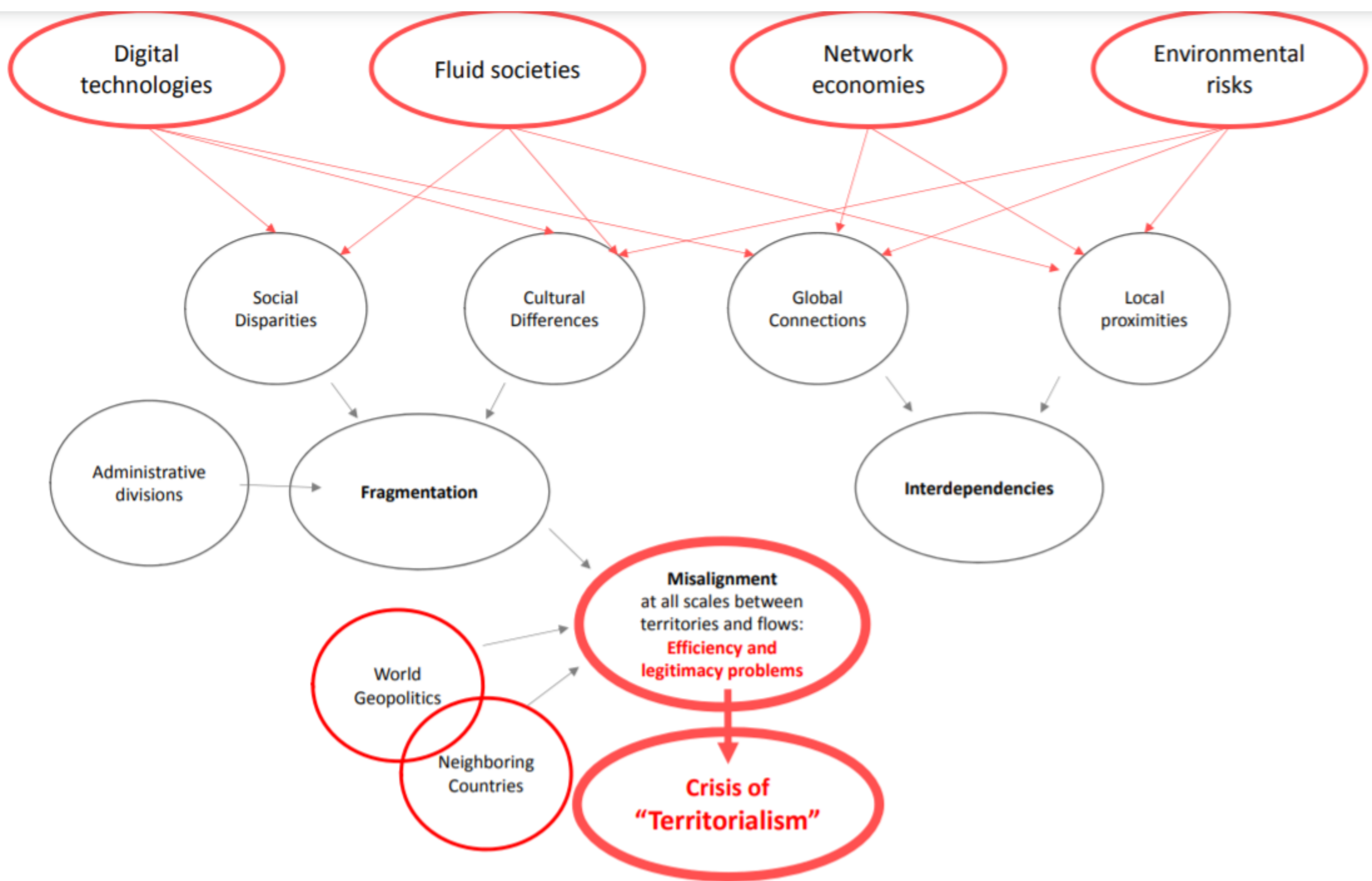
### Asylum applications per capita



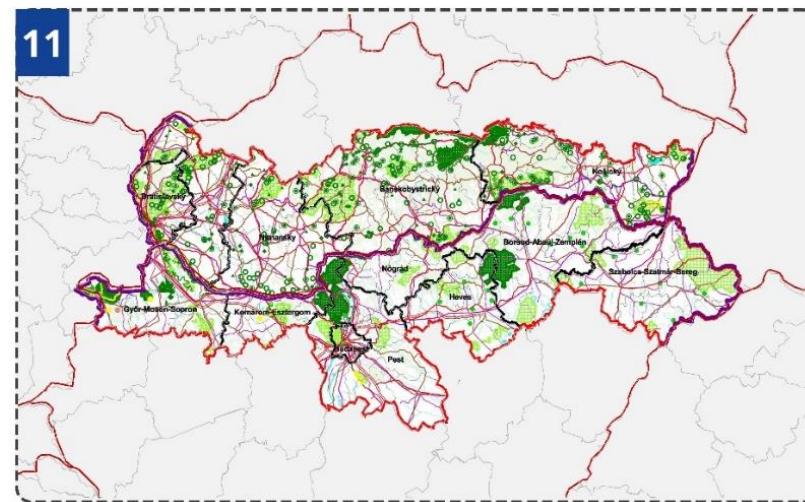
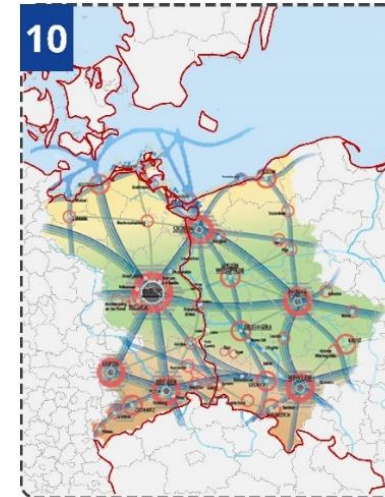
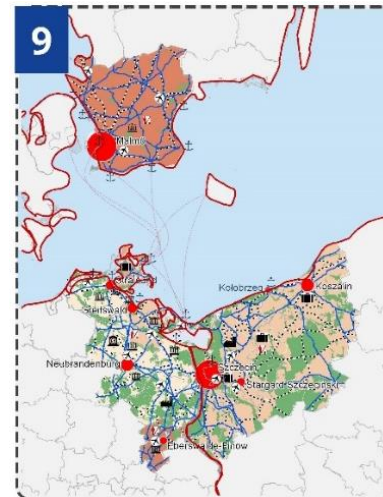
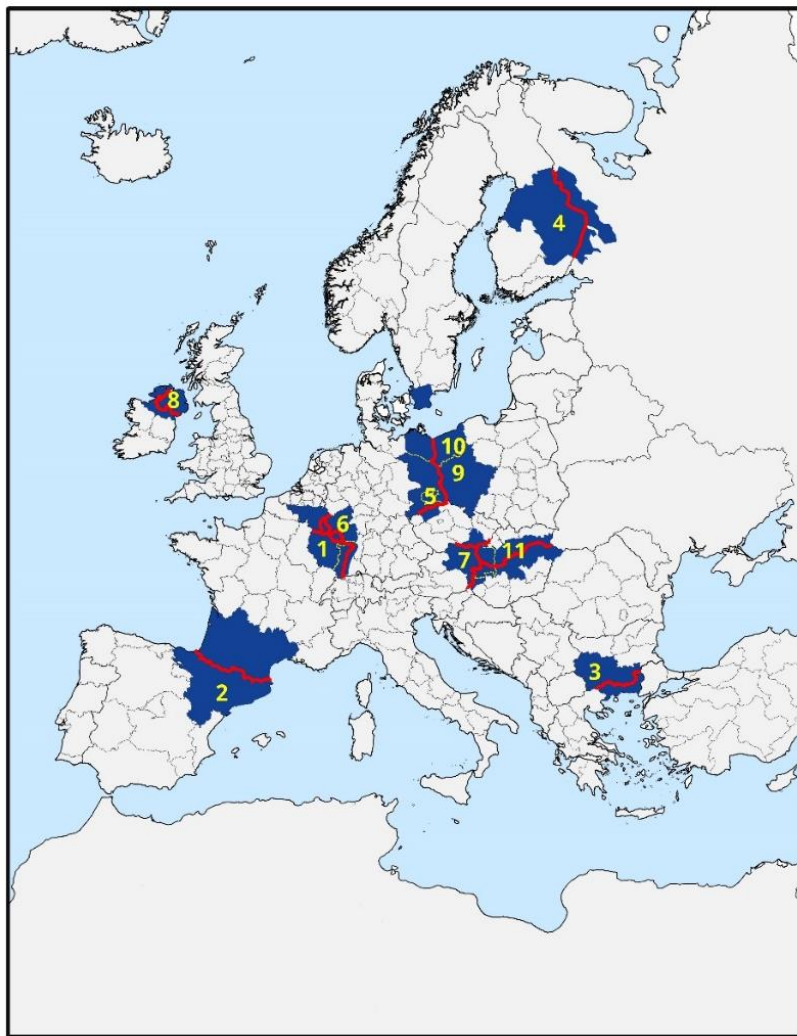
Regional level: NUTS 2 (2013)  
Origin of data: ESPON, 2019;  
ESTAT GISCO for administrative boundaries







# New functional structures are being created

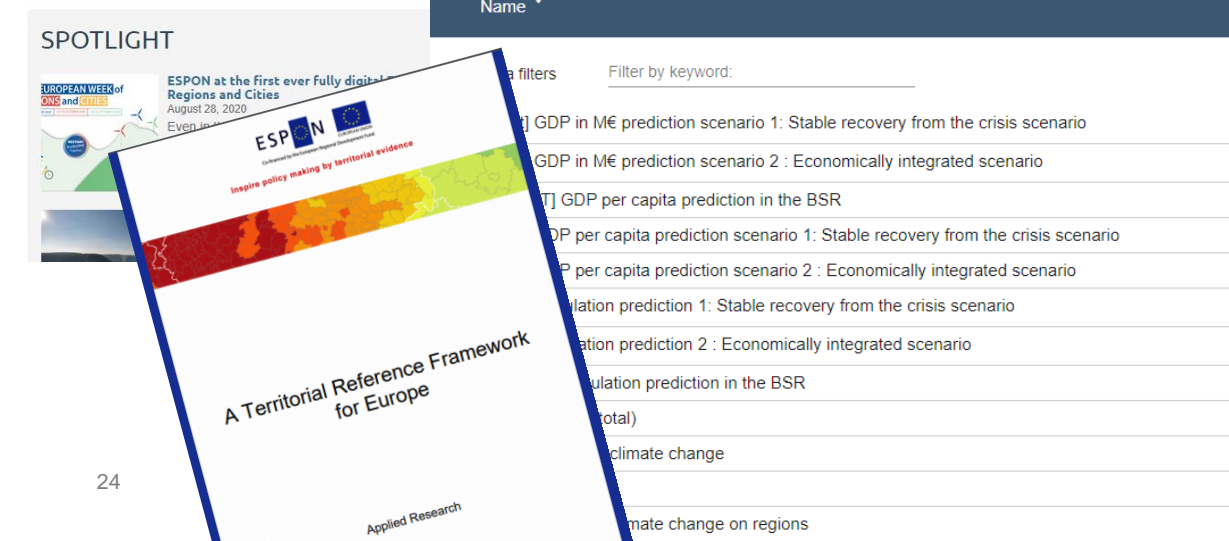


## Conclusions: insights to inspire TA2020+

- **Core values and key policy-aims:** **Values remain mostly valid from previous TAs**
  - It is convenient to express values according to nowadays European political narratives
  - It is necessary to define a systematic monitoring: how these values (and targets) are achieved overtime
- **Territorial Cooperation:** **Cooperation becomes an “imperative” because of fragmentation**
  - Emerging “**functional areas**” from local to continental need new legal frameworks: e.g. enabling ETGC
  - European policy-design and implementation requires “place-based” instruments: CLLD, ITI
  - European policies have to induce a significant improvement of quality of government everywhere
- **“Territorial” Dimension of Policies:** **Spatial Development as useful planning framework**
  - Spatial planning as a comprehensive reference for cross-border integration
  - Spatial planning as “bottom-up” stable reference to sectorial policies at all scales
- **Cohesion policies:** **Need for stronger, tailor-made and just-in-time redistributive policies**



# ESPON Evidence and TA2030



## 4.0 technological transformations

### Main manifestations of 4.0 technological transformations, 2009 – 2016

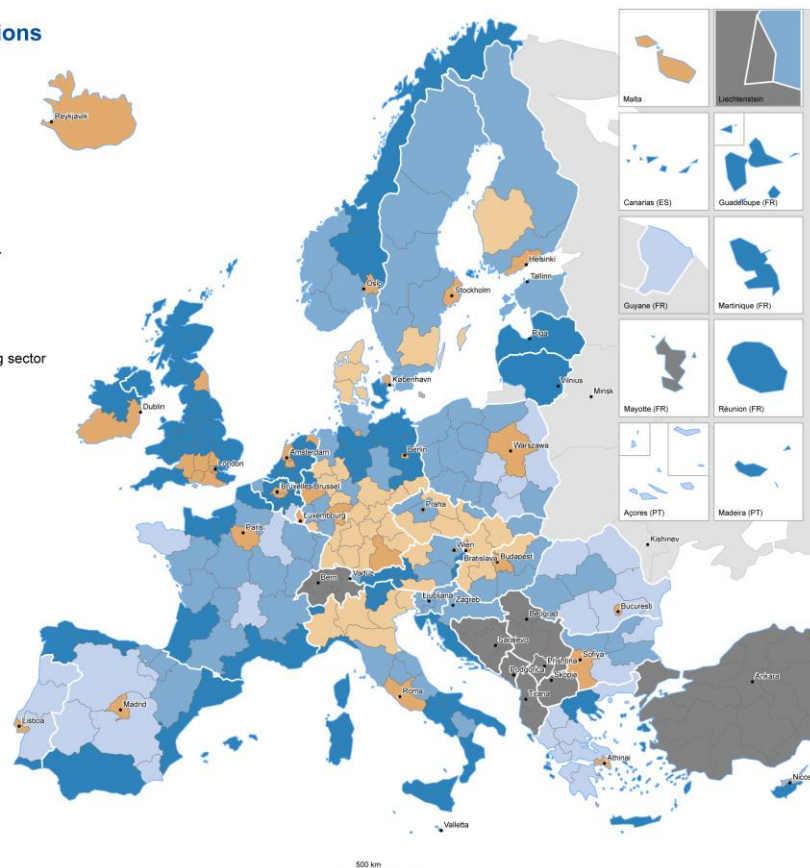
Transformations most profound in the service sector

- Servitisation
- Digitalisation of traditional services

Transformations most profound in the manufacturing sector

- Industry 4.0
- Robotisation of traditional manufacturing
- Niches of robotisation
- no data

Regional level: NUTS 2 (2013)  
Origin of data: OECD-REGPAT, ORBIT, EUROSTAT, 2019;  
ESTAT GISCO for administrative boundaries



			2030
			2035
★			2030, 2050
★			2008, 2014
★			2005-2011
★			1990 to 2018
★			2071-2100



# References

- ESPON [European Territorial Reference Framework](#)
- ESPON [World in Europe](#)
- ESPON [Territorial Trends in Technological Transformations](#)
- ESPON [Database](#)
  
- A. Rodriguez-Pose, L. Dijkstra, H. Poelman ["The Geographies of EU Discontent"](#)



Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

espon.eu



# Thank you!

[martin.gauk@espon.eu](mailto:martin.gauk@espon.eu)

[www.espon.eu](http://www.espon.eu)