



Co-financed by the European Regional Development Fund

Inspire Policy Making with Territorial Evidence

Geography of New Employment Dynamics in Europe: current landscape and future evolution

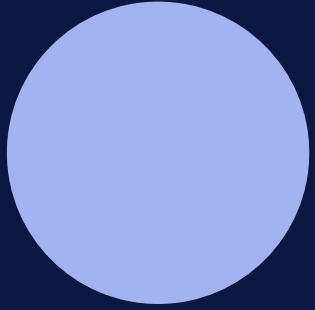
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Inspire Policy Making with Territorial Evidence

Geography of New Employment Dynamics in Europe: an European analysis and the North-East Romanian regional case



Study contents

The project

- Led by Istituto per la Ricerca Sociale (IRS, www.irsonline.it)
- Implemented in partnership with Institute for Employment Studies, UK; Institute for Regional Development and Structural Planning, DE; University College London, UK; Technische Universität Berlin, DE
- May 2016 – December 2017
- Focus on EU-28, ESPON partner countries, Candidate countries and non-EU Western Balkan countries

Research questions

- *Territorial Patterns of new employment dynamics:*
 - What are the territorial patterns of new employment creation in Europe and how are these likely to evolve?
 - What impact will recent trends have on the future development of Europe's regions?
- *Determinants and Effects:*
 - How is the European policy focus on 'KE' sectors for investment, jobs and growth affecting the geographical distribution of new employment creation?
 - What impact does this have for regional development and territorial cohesion?
- *Policy lessons and recommendations:*
 - What are the key policy lessons for CP?
 - What are the opportunities for lagging regions capture spillovers, re-capture the lost skills and innovate in new sectors?

Study tasks and methodology

Evidence on territorial patterns of new employment growth and role of KE

- Review of literature and indicators on labour market and KE, education and migration, territorial cohesion

Mapping of typologies of European regions with respect to their potentials for KE sectors

- Statistical analysis investigating potential correlations between the KE sectors and interregional labour market dynamics

Scenario building: future development of employment dynamics, KE and skilled mobility flows

- Expert interviews with EU and national level experts
- Three rounds of experts' engagement in scenario building

Six regional case studies: London, Berlin, Abruzzo, Malopolska, North-East Region, Mecklenburg-Vorpommern

- Qualitative and quantitative analysis

Recommendations for future Cohesion Policy

- Triangulation of previous data sources

The North-East case study: selection reasons

- Part of a 'less competitive economy with a low incidence of knowledge economy', but deploys an increase in KE in the last years (e.g. ICT, a strategic sector in the regional economy; increase in the number of companies and employees in KE; increase in the number of patent applications)
- 'Sending region', even though the Iasi county has become a receiving area
- Several social and economic problems due to emigration along the years: brain drain, especially in the medical field (EC, 2010; IOM 2013 and 2014); high number of 'white-orphans' (Save the Children, 2014)
- Strategic area from a geopolitical point of view at both national and EU level, as it represents the Eastern frontier of the European Union; Iasi, a national development pole.
- Characterised by strong collaborations between universities and companies, especially in the field of ICT
- Several national policy measures to develop KE and to encourage Romanian emigrants to invest in Romania

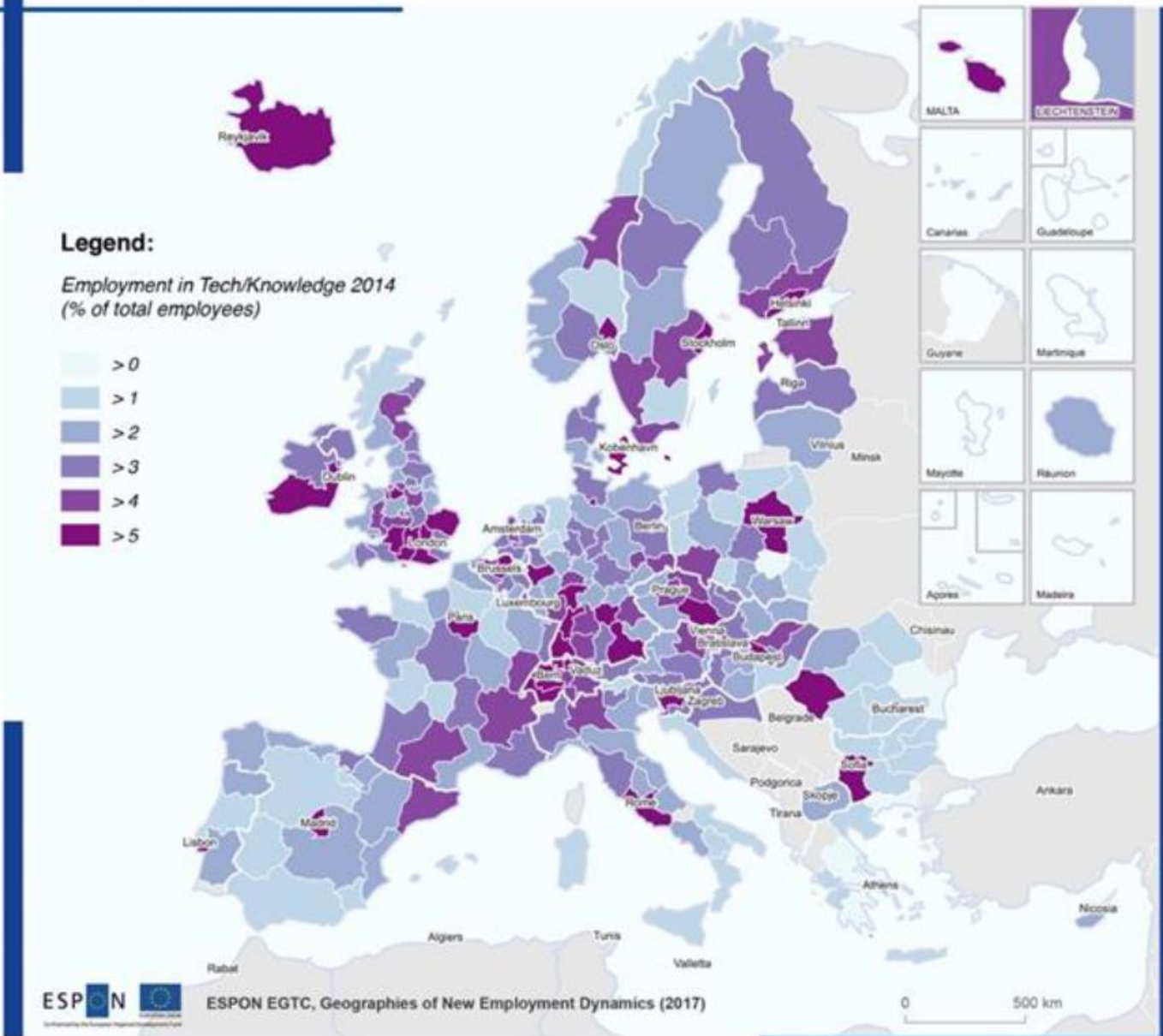
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Which KE patterns and which links between KE, (high skilled youth) migration flows and socio-spatial disparities in the ESPON countries and North-East region?

Defining knowledge economy

- Lack of an established concept of 'knowledge economy' (Brinkley, 2006), and thus measurement is a challenge (OECD, 1996):
 - Difficulties in measuring knowledge
 - Difficulties in measuring the impact of knowledge on production outcomes
- Working definition based on three main criteria:
 - knowledge-intensive sectors: e.g. high-tech manufacturing and services; financial and business services, health, education, and creative and cultural services
 - presence of high level scientific institutions and high educational level of the population and work force in a specific area
 - investments in innovation at firm, individual, and sector-level

KE regional patterns in ESPON countries



Tech- and Knowledge-Workers (2014)

- KE location patterns increase territorial polarization:
 - Concentration in technologically advanced regions and in capital cities/metropolitan areas
 - Peripheral and rural areas lack physical, social and human capital needed to support KE

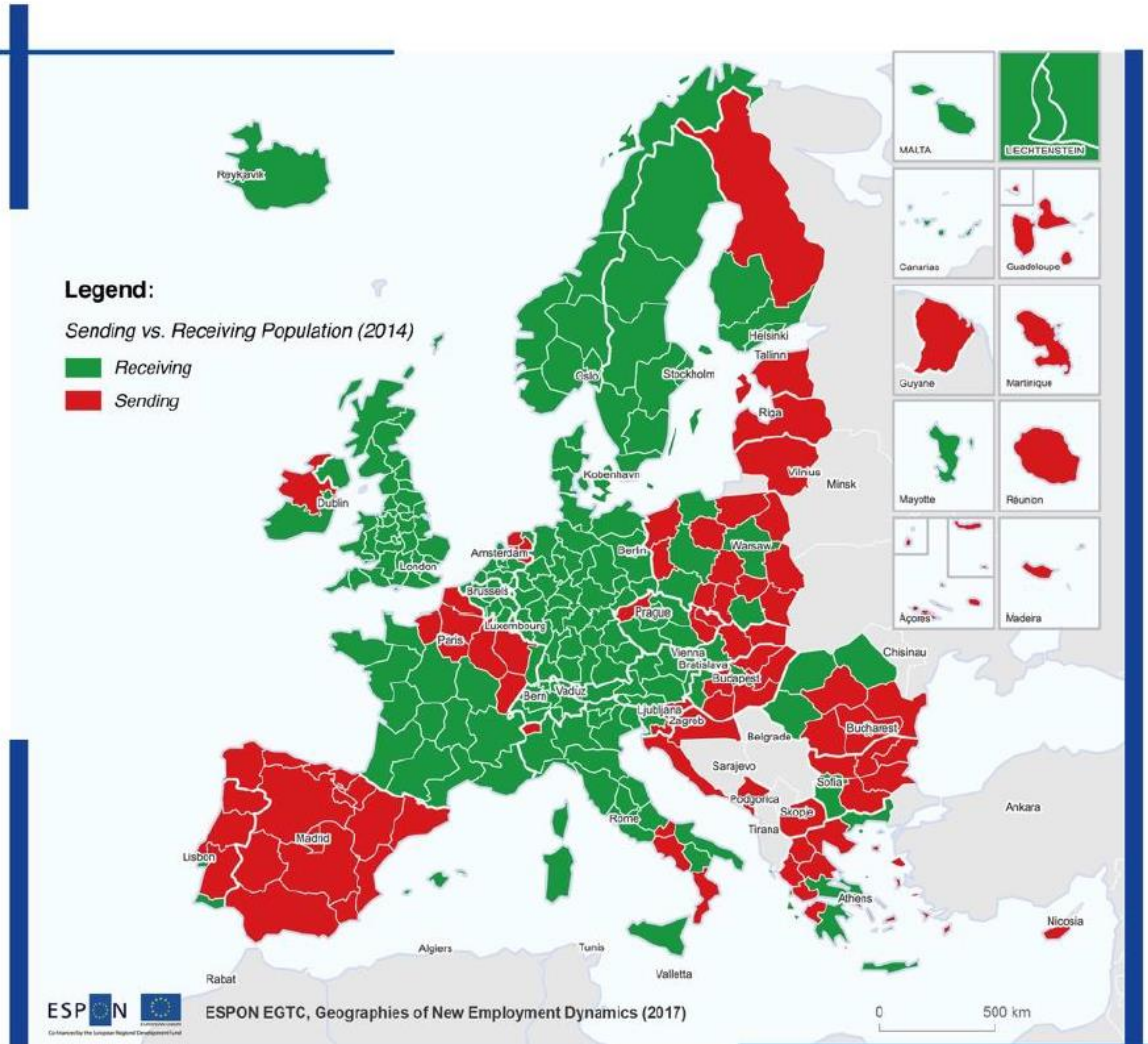
KE patterns in the North-East region

- North East region, the fourth Romanian region by number of local active units in KE fields (ICT, professional and technical activities, education, health and social assistance and cultural and leisure activities) in 2017
- Knowledge economy-related local units amounted to 21.9% of the overall units in 2017
- While traditional sectors registered relevant losses between 2008 and 2015, KE sectors increased: +45% in technical, scientific and professional activities; +4% in the ICT sector; +32% in the cultural and leisure sector; +18% in education
- Between 2000 and 2015, the % of youth employed reduced by 10% in the North-East (lower than the national value – 16%), but KE employment increased: e.g. 45% increase of employees in R&D (compared to 2002); 30% increase of employees professional, technical and scientific services sector and +52% in ICT (compared to 2008)
- KE unevenly distributed in the region: 41% of the regional KE enterprises and most of the KE employees concentrated in Iasi county; R&D investments (0.70% of GDP) higher than the regional (0.29%) and national average (0.38%);
- Iasi is the only county that reduced the unemployment level between 2000 and 2015

KE drivers in the North-East region

- Poverty is unevenly distributed: Iasi county has registered a higher growth (30%) compared to both the regional (21%) and national (29%) levels between 2008 and 2014
- Poor road, railway and air connectivity represents the weakest feature of the region, hindering the localisation of businesses in the region, especially in secondary cities (case study interviews, World Bank, 2017; Cojanu V., Patru-Stupariu I., Dobre R., 2011);
- Three airports of whom the most developed is in Iasi; according to a case study interview the higher development of the airport in Iasi was decisive for locating there
- Strong digital infrastructure in the whole region
- North East, the second pool of graduates for technical studies and the third for ICT graduates at national level
- Iasi is the most relevant university centre in the region; it took around 90% of the students in the North East in the academic year 2015-2016; most of the research centres located in Iasi
- KE concentration in Iasi due to better connectivity, social, environmental and business infrastructure, a higher pool of graduates in STEM (case interviews)

Intra-European migration trends in EspoN countries



In- and Out-Migration (2014)

- Increasing east-west/south-north and urban-rural polarization:
 - Sending: 84 NUTS2 regions in 18 MSs with average GDP per capita at 64% of the EU average
 - Receiving: 336 NUTS2 regions with average per capita GDP at 108% of the EU avg. (646% in Inner London West).
- Between 2004 and 2014:
 - 60 regions (17%) switched from receiving to sending
 - 28 regions (8%) switched from sending to receiving

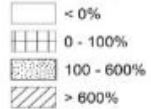
Regional level: NUTS 2 (version 2013)

Migration trends in the North-East region

Major Counties and Development Regions

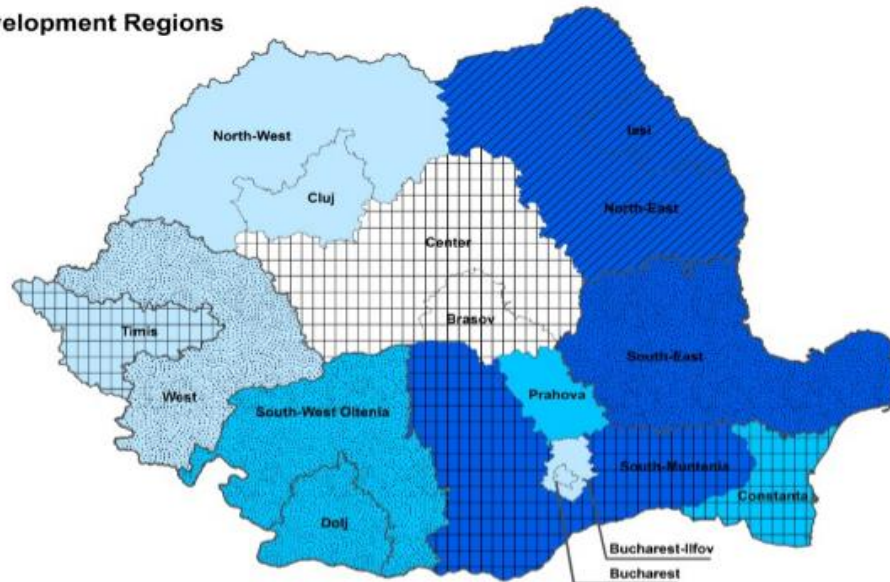
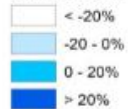
Permanent immigrants

% Change (2000-2015)



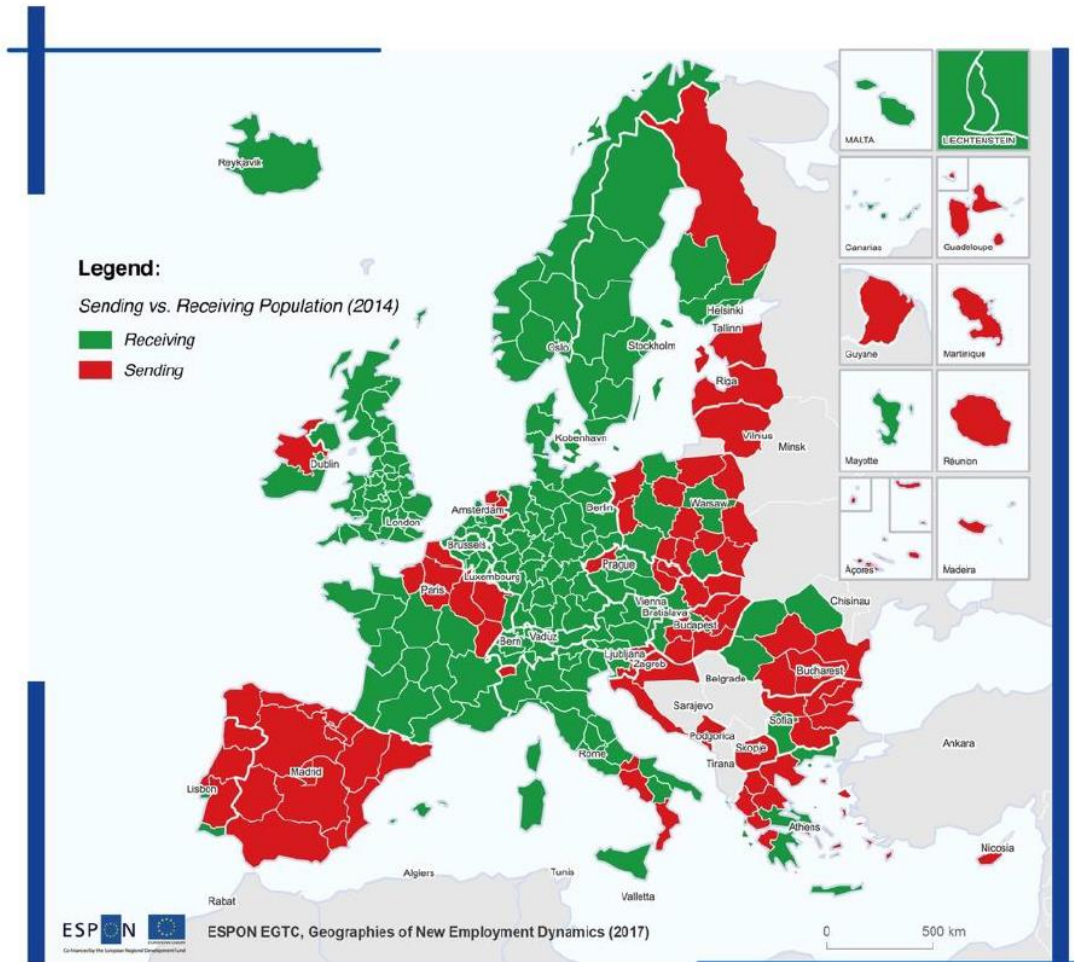
Permanent emigrants

% Change (2000-2015)



- Romania - the 6th largest emigration country in the EU in absolute terms and the 1st in relative terms (World Bank, 2017)
- Romania – the EU country with the highest rate of active emigration of highly qualified people (Canetta et al, 2014); over 40% of the Romanian migrants are high skilled (World Bank)
- The North-East region has been the highest contributor to Romanian external and internal migration: -2.5 crude rate between 2000-2015 (-2.1 at national level)
- Temporary emigration is higher than permanent one; it is less skilled and more circular, while the permanent one is more skilled and female (Anghel et al., 2016, Morosanu, 2013, LSR,2014))
- After 2010, emigrants are more young; higher in some sectors (medicine) and lower in others (ICT)

Intra-European migration drivers in Espon countries



In- and Out-Migration (2014)

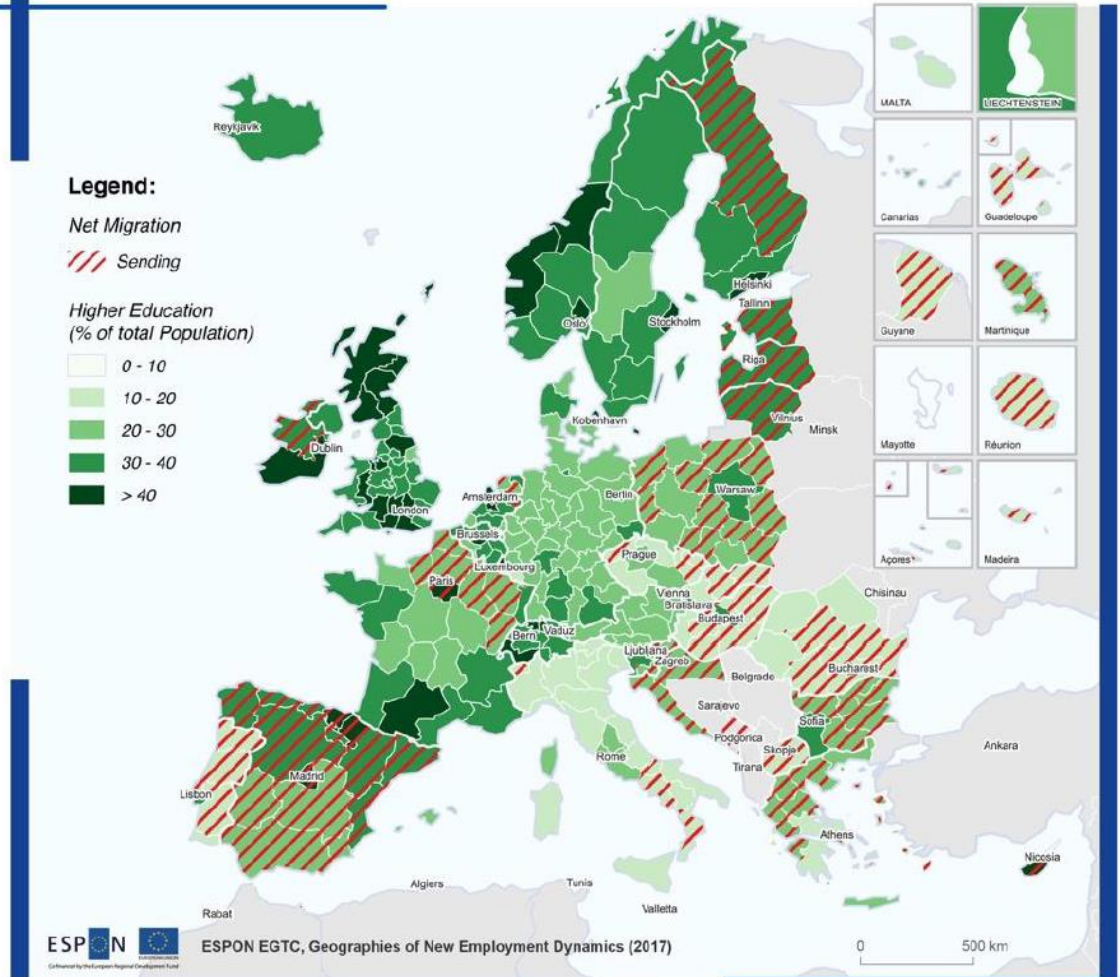
- **Push factors:** regional socio-economic disparities; low labour market conditions; low levels of democracy; personal/family reasons;
- **Pull factors:** standards of living; personal and family networks; cultural and institutional environment; existence of international recruitment agencies and exchange programmes
- **Higher mobility rates of young, high skilled and specialised workers**

Migration drivers in the North-East region

- Quality of life, job search, personal reasons (e.g. marriage) and studies represent the main reasons people go abroad (World Bank, 2017; Anghel et al, 2016; case study interviews)
- Doctors: innovative specialisations and the general working conditions (Botezat A. et al, 2017)
- Corruption, political instability, low quality of public services and life, in particular of social infrastructure (i.e. health and education), of physical and green infrastructure (i.e streets, parks), hinder interviewed emigrants from the North-East region to come back home
 - According to the Social Progress Index (EC, 2017), between 2011 and 2013, the North-East region ranked 268 on 272 EU regions assessed
 - Romania registered among the lowest for levels of executive capacity and accountability in the EU in 2014, 2015 and 2016 (EC, 2016)
 - In 2016, less than 30% of Romanian citizens reported the quality of public services as good compared to over 80% in the Netherlands and Luxembourg (EC, 2016)
- Pull factors: existence of previous family/friend networks; good quality of life; high career opportunities

KE and mobility patterns in Espon countries

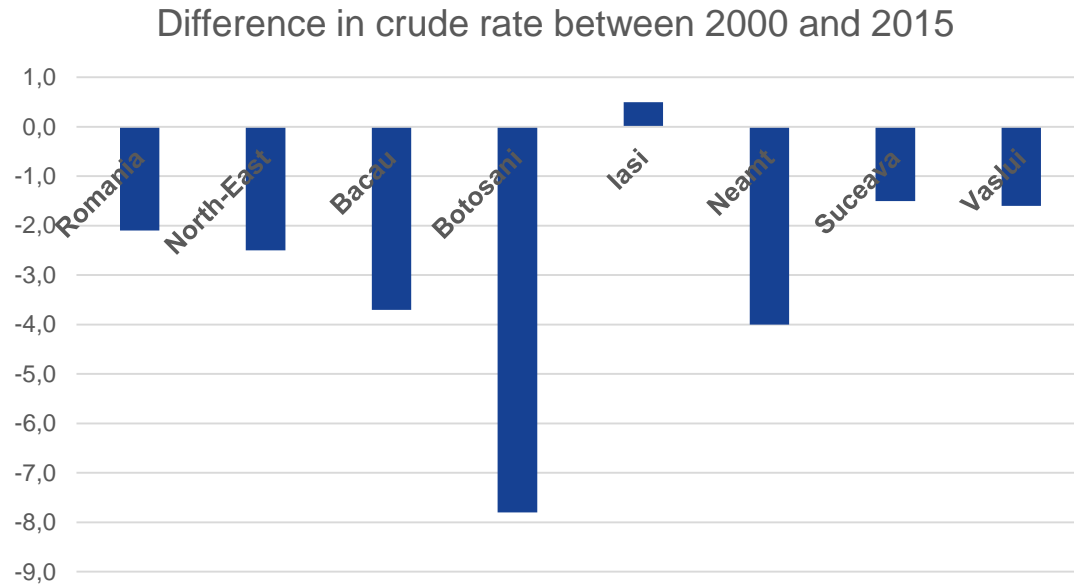
Regions presenting a high share of highly educated people are not losing their population



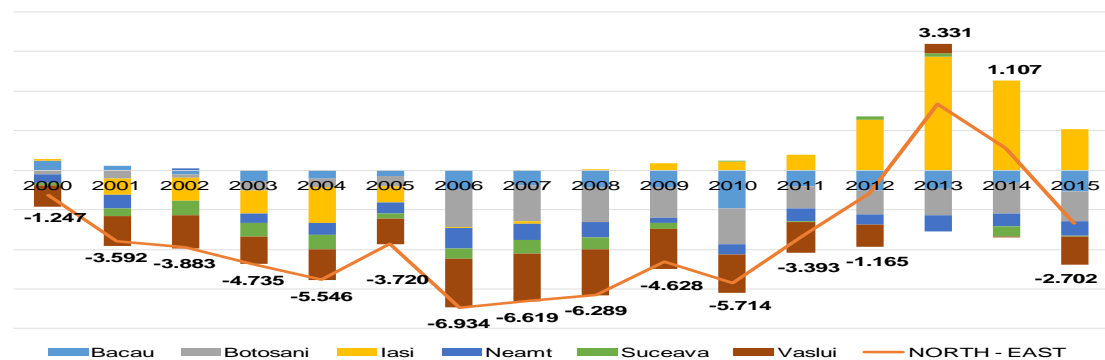
Out-Migration and Higher Education (2014)

- Economic crisis has exacerbated youth mobility (push factor)
- Young skilled migrants are more attracted by regions with higher GDP and KE (pull factor), dynamic urban centres and capital cities
- KE (urban) regions experience higher net immigration after the crisis
- Effects:
 - reduced growth potential (sending); contribution to growth, but strains on welfare and public services (receiving)
 - Rural & peripheral regions and second tier cities most affected (sending regions)

KE and mobility patterns in the North-East region

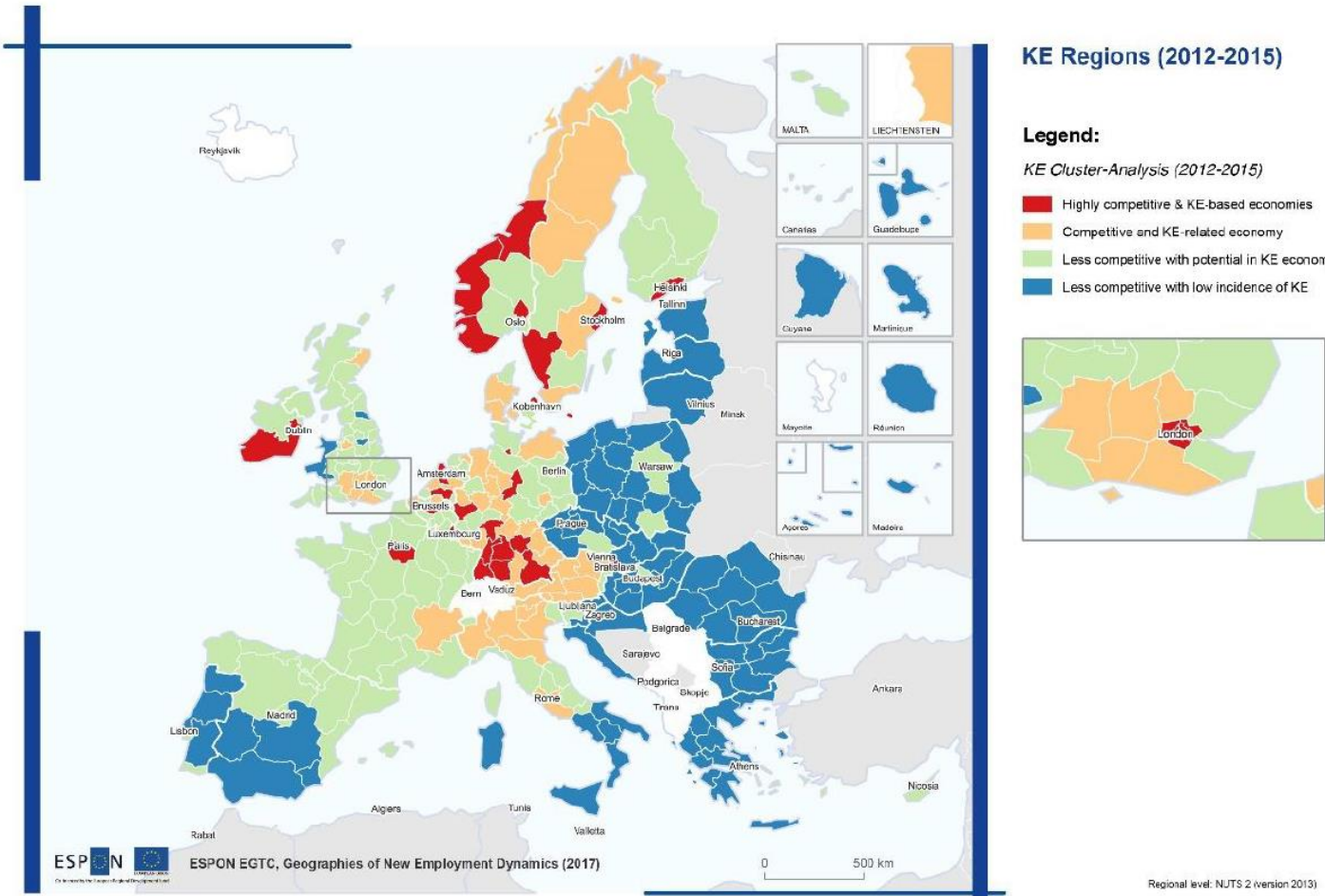


Net settling of domicile (internal migration) in the North-East region between 2000 and 2015



- In the last years, the North-East region has become also a place of internal immigration; +681% of permanent immigration
- The fact that the North-East region has become a place of internal immigration is almost entirely due to the attractiveness of Iasi county: over 50% of the overall youth established in the region chose Iasi as their home
- According to the World Bank survey (2017), Iasi is the sixth city in Romania where respondents would like to move;
- Quality of life and job opportunities are the main reasons for choosing Iasi (World Bank survey, 2017)

Regional classification: changes between pre-post crisis



- High competitive and KE-based regions: 35 regions; highest values of KE; best social and economic conditions; increasing population; improvements or very small decline
- Competitive and KE-related regions: 54 regions; high relevance of KE; good social and economic conditions; lower labour market conditions for youth; increasing population
- Less competitive regions with potential in KE: 110 regions; slightly worse social and economic conditions than the EU average, but improvements in KE indicators; stable population
- Less competitive regions with low incidence of KE: 83 regions; lowest social and economic conditions, lowest KE values; decreasing population

Future KE evolution: expected scenarios

- By 2025 nearly half of the expected new and replacement vacancies within the EU will be for highly qualified mobile workers
- Regional disparities in adoption of new technologies and the skill level of the workforce will further advance regional and urban-rural differences. Social and political risks in lagging areas.
- Brexit and possible measures to limit Schengen likely to change the geography of labour mobility
- Four scenarios (Delphi exercise):
 - **‘Barren Wastelands’**: more likely in Mediterranean regions and EU peripheries; low and/or uneven growth, unstable political regimes and anti-migrant attitudes; intensification of a ‘two-speed’ Europe; lower demand for high skilled work.
 - **‘Hardship and Harmony’**: more likely in Northern and Western Europe; low and/or uneven growth but relative political stability and public and policy support of migration.
 - **‘Fortresses of Treasure’**: positive but uneven growth; high degree of political instability and distrust in migrants; prosperous metropolitan centres attractive to young highly-skilled migrants; skills shortages in others.
 - **‘Warmth of 27 Suns (and one moon)’**: more likely in prosperous ‘core’ regions, but also in some peripheral regions and countries; inclusive, high growth scenario and skills investments; high levels of high skilled youth mobility within the EU; struggling countries unlikely to experience the same level of growth.

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Which strategies for developing KE?

Strategies for KE development: lessons from the literature

- No single strategy, but various strategies based on the features and resources of the respective area
- **Support for R&D:** incentives to private investments in R&D; investments in ICT infrastructure and STEM higher education and skills; legal framework of IPR; access to financing and internationalisation for businesses; clusterisation (e.g. **Innovation fund in Denmark; Patent box in Italy; Central Technology Transfer Office in Cyprus**)
- **Digital growth:** investments in broadband and high-speed networks; development of ICT products, services and e-commerce; investments in e-government, e-learning, e-inclusion, e-health (e.g. **Digital Slovenian Coalition in Slovenia; Creative Learning Centres in Ireland; Open Data Platforms of Six Cities in Finland**)
- **Skills development and mismatch:** reduction in early school leaving, improvement of the education and training infrastructure; apprenticeships, internships, collaboration between universities and companies; development of life-long learning schemes and VET; measures targeted to NEET (e.g. **Youth Guarantee in Italy; One Stop Guidance Centres in Finland; Skills Hub in Sweden**)
- **Diaspora policies:** brain circulation, knowledge transfer, return migration (e.g. **Crossing Borders in Croatia, Estonian Portal “Talents back home!”, Youth Come Home programme in Hungary, Brain gain fiscal provision in Italy, Diaspora Start-UP and Conference Diaspora in Scientific Research and Higher Education**).

Regional strategies for KE: lessons from six case studies (1)

- **Key assets** favouring the development of KE:
 - Presence of well-recognised universities and research centres, together with a well-trained workforce;
 - Good transport and ICT connects and good environmental, living and working conditions;
 - Availability of funding to sustain knowledge economy development;
 - Institutional capacity of public institutions, in particular at local level;
 - Good level of social capital
- **Successful strategies for KE** development based on: exploiting existing **place based assets**, good institutional capacity, **policy coordination**.

Regional strategies for KE: lessons from six case studies (2)

Monetary or non monetary incentives:
Abruzzo, Molpolska, Berlin, North-East Region

- Employment bonuses
- Funding/facilitation to projects pursuing clusterisation
- Grants to collaborative research and to the diversification and internationalisation of the higher education landscape

Oasis Strategy:
Mecklenburg-Vorpommern

- Supporting KE sector(s) with the highest potential given existing competences and structures: e.g. Strategy for the health sector – BioCon Valley GmbH integrating 130 stakeholders

Build a magnet:
Abruzzo

- Exploit unique territorial resource, in very remote areas with rather low potential of attracting resources from abroad: Gran Sasso Science Institute

Regional strategies for KE: lessons from six case studies (3)

Building KE opportunities through urban development:
Berlin, London, Iasi

- Re-use urban areas to build KE hubs
- London Knowledge Quarter uniting 75 companies and research organisation in KE in one-mile radius

Branding in well-established KE economies

- The world in one city used for the 2012 Olympic games; LondonisOpen campaign in the context of Brexit
- “Berlin, poor but sexy”, BeBerlin – open and diverse city, digital capital, brain city, place to be for tech industries

Selective migration and diaspora policies: London and North-East

- Selective migration policies: attraction of high-skilled students and workers
- Diaspora strategies: exploit the skills and resources of emigrants

Strategy for KE development in North-East region

Urban development policies supporting KE

- Integrated urban development axis of the 2007-2013 ROP; the municipality of Iasi is one of the growth poles financed within the 2007-2013 ROP
- Integrated Urban Development Strategy of the Municipality of Iasi has been updated in the context of the 2014-2020 ROP, with the aim to turn Iasi into a KE regional pole; over 1000 projects

Incentives to persons, people and research centres

- Grants to researchers, universities and/or research centres to support research development and companies for clusterisation, technological transfer, innovation financed by the National Research, Development and Innovation Plans, the Competitiveness OP and the ESF Human Capital programme

Fiscal and financial incentives

- Incentives for the creation of large businesses in the IT sector
- 0% income tax for employees in the ICT sector
- 0% income tax for employees in R&D and for companies in this area for the next 10 years
- 0% tax on profit reinvested into new technological equipment used for business purposes

Diaspora start-up

- Incentivise Romanian entrepreneurs abroad to invest in Romania
- Finances the creation of innovative and non-agricultural enterprises in urban areas of Romania

Results of KE development strategy in North-East region

Urban development policies supporting KE

- Improvement in the urban transport, social, environmental and cultural infrastructure of ESIF funded growth poles (lasi)
- Increase in their attractiveness for both people and investors
- No spillover effects in the rest of the region

Incentives to persons, people and research centres

- Improved collaboration between universities/research centres and firms, but uncertain effect on real life economy
- 15,000 funded PhDs and post docs, but barely any extra employment for universities/public research centres
- Yet, grants essential for maintaining youth in areas with less developed private KE sectors (i.e. Suceava)

Fiscal and financial incentives

- Development of the ICT sector in the region; it contributed to a higher retention of qualified workers
- Income tax exemption for employees considered one of the main policies favouring the retention of the workforce in the ICT sector

Diaspora start-up

- Unclear contribution to the development of KE; leisure activities first in the top 3 funded actions in all regions; IT investments present in the top 3 funded actions only in the West Region (updated 2019)
- High demand for business development from emigrants active in sectors with low economic value

Results of KE development strategy in North-East region

“the improved air connections and airport were relevant conditions for selecting Iasi for a branch in the North-East region. However, improvements in air connections are still needed so that Iasi can be able to fully compete with Bucharest and Cluj. Furthermore, employees do not look only at the professional career opportunities, but also at leisure and social life opportunities. Iasi offers now several opportunities for spending one’s free time.” (interviewed actor)”

“...we could find here a developed telecommunications infrastructure, an airport and good road connections, and office buildings enabling us to offer high quality work environment to our colleagues” (Oracle country leader in Investors’ Guide of North-East Region, 2017)

“I have selected Iasi also because the airport is ok, as it has been improving a lot in the last years and as there are nice areas and buildings for opening an office” (interviewed actor)

“not only has Iasi managed to maintain the working force, but it has also attracted new persons in the city, especially youth. The ICT firms have publicised a lot Iasi city and opportunities offered both by the sector and the city. Some people in the ICT sector came back and people from other cities in the region or other regions moved to Iasi.” (interviewed actor)

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Which lessons for Cohesion policy?

Lessons for Cohesion policy

- Growing territorial disparities ask for a greater attention to the territorial dimension of growth and to employment and social policies:
 - Redistributive measures and supporting development in lagging areas;
 - Place-based, integrated, multi-fund and multi-sited strategies.
- Support lagging regions through:
 - Valorising existing local assets and resources to make places attractive for living;
 - Providing services and infrastructures to improve accessibility, connectivity, improved living and economic conditions;
 - Fostering institutional capacity and vertical and horizontal cooperation among stakeholders and territories, through incentives, technical assistance, networking or the creation of formal structures;
 - Adopting 'diaspora strategies' encouraging return migration and/or incentivising emigrants to invest in the development of their region/area of origin, through economic support, the creation of knowledge networks and human capital investments, as well as social investments (infrastructures and services)

Lessons for Cohesion policy

- **Strengthen urban-rural linkages** to promote spillovers between urban and surrounding areas (functional regions; integrated cross-region cooperation; targeted measures for second tier cities and rural areas; ...)
- **Tailor measures to territorial problems** to find “new” solutions when tackling territorial problems. ITI and CLLD have strengthened the participation of local stakeholders in decision-making. However, still too little experience at regional and local level in lagging regions.
- **Improve Cohesion Policy governance and implementation mechanisms** to better support capacity building among local stakeholders in lagging areas, and institutional multilevel and inter-regional cooperation

// Thank you

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