

Population mobility: moving away from a 'sedentarist' epistemology

Original

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Second ESPON 2013 Scientific Report
December 2013

Science in support of European Territorial Development and Cohesion



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This publication is based on papers and the discussion of the ESPON Scientific Conference held on 12-13 September 2013. The papers were prepared by authors from transnational project groups carrying out applied research projects and targeted analyses for ESPON as well as authors from the professional and academic organisations AESOP, ECTP-CEU, ERSA, EUGEO and RSA.

The present publication was processed by the ESPON Coordination Unit and edited by Frank Holstein, Sabine Zillmer and Kai Böhme from Spatial Foresight. The single papers have been reviewed by Gordon Dabinett, Cliff Hague, Jacek Zaucha and Sabine Zillmer. Gordon Dabinett and Cliff Hague did the language editing of the papers.

Information on the ESPON Programme and projects, the complete reports and list of partners involved can be found at www.espon.eu

The ESPON website always presents the latest developments in the ESPON Programme and findings from ESPON projects. It offers the opportunity to consult in detail ESPON publications, tools, project reports and indicators available in the ESPON database.

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The content of this report is based on the results of applied research projects by transnational teams of research taking part in the ESPON 2013 Programme. As such, the maps and texts do not necessarily reflect the opinion of the ESPON Monitoring Committee.

The ESPON 2013 Programme, the European Observation Network for Territorial Development and Cohesion, supports policy development with evidence and analyses on territorial dynamics within Europe. ESPON's main activity is to deliver new European facts and understanding for policy makers via applied research projects, targeted analyses and analytical tools.

One of the objectives of the ESPON Programme is to support the European wide research community in the field of European territorial science and to involve a wide European network of scientists and practitioners in the field of territorial research and its related fields. A large involvement is indispensable to get high qualified research capacity in ESPON projects and at the same time to increase interest and competences in research on European territorial structures, trends, perspectives and impacts of EU sector policy.

The ESPON Programme has hitherto promoted the scientific component of the programme through scientific conferences and workshops, cooperation with European organisations in the fields of regional science, geography and spatial planning, as well as with a dedicated series of ESPON reports ("blue series") mainly targeting the scientific community. The ESPON 2006 Programme published two Scientific Reports and the first ESPON 2013 Scientific Report was published in 2010.

This second ESPON 2013 Scientific Report presents papers from both ESPON projects and authors from several European professional and academic organisations. The report is the result of the ESPON Scientific Conference "Science in support of European Territorial Development and Cohesion" held on the 12th and 13th of September 2013 in Luxembourg. This ESPON Scientific Conference targeted territorial research and analysis and continued the building of a European scientific research community that can provide evidence capable of supporting a stronger territorial dimension in policy considerations. In this context, the conference was part of a scientific dialogue to support a stronger territorial dimension in policy considerations. This is reflected in the aim of the conference, which was on the one hand to provide a good overview and scientific dialogue of the progress made in the scientific field during the current programming period. On the other hand, on-going ESPON projects as well as researchers outside the ESPON network had the opportunity to exchange their views of new and innovative research.

This Scientific Report contains 34 scientific papers, prepared by researchers involved in ESPON projects and authors from the European professional and academic organisations AESOP, ECTP-CEU, ERSA, EUGEO and RSA. The papers were presented and discussed during the conference workshop sessions, after which they have been reviewed by Prof. Gordon Dabinett, Prof. Emer. Cliff Hague, Assoc. Prof. Jacek Zaucha and Dr Sabine Zillmer. All authors have used the remarks made by the reviewers to strengthen their papers. The results can be found in Chapters 2 to 4.

Chapter 1 gives an introduction to the policy framework ESPON is dealing with and provides an overview and structure of all papers included. In addition, a number of overarching points emerged which are discussed giving some ideas for the future.

A third ESPON 2013 Scientific Report is planned for end 2014 taking stock of the progress ESPON projects made in the scientific field of territorial development and cohesion.

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2.2.9 Population mobility: moving away from a 'sedentarist' epistemology

Antonio Russo*, Ian Smith# and Loris Servillo‡

I. INTRODUCTION: INTEGRATING HUMAN MOBILITY IN TERRITORIAL ANALYSIS

The main challenge of the ATTREG project (*The Attractiveness of Regions and Cities for Residents and Visitors*) was to generate a conceptual and operational framework that would allow integrating the dimension of human mobility in ESPON policy development. To address this topic, mobility (flows, drivers, policy contexts) has been analysed in relation to different populations or 'audiences', which can hardly be positioned in the simple binary resident-visitor evoked by the project title, adhering instead to the notion – and a remarkable turn in the epistemology of social sciences – that sees contemporary society as 'on the move' rather than sedentary (Sheller & Urry 2006). This has bearings on the general approach of ESPON, as it compels to consider population mobility in its full complexity when analyzing the territorial impacts of external shocks and policies, or the formulation of future scenarios. This approach led us to analyse and contextualise different *mobilities* – the work-related migrations of different collectives, other lifestyle-related displacements, and the short-term, 'unsticky' mobility of tourists – under the same methodological lens, and focusing on their interrelations, synergies or conflicts.

This paper mainly focuses on the issue of relating 'types of attractiveness' to policy instruments within a multilevel perspective, advancing the notion that attraction *per se* is not always to be looked for, and should anyway be articulated in sophisticated strategies targeting specific audiences, taking into full account the spatial effects engendered. In the next section we introduce a typology of attractive regions. In the third we then relate it to specific policy spaces and instruments that regions in a specific class should be looking at. The fourth section refers back to the general EU policy objectives, and concludes reflecting on the validity of this work for the ESPON research approach.

II. FORMS OF INTER-REGIONAL MOBILITY AND THEIR INTERACTION

The three key bodies of literature on which our argument is built come from research looking at the relationship between migration and tourism (see Williams & Hall 2000; Hall & Müller 2004; Williams 2013), at substitution between commuting and migration (for instance Eliasson et al. 2003; Green et al. 1999), and at counter-urbanisation and 'escalator' regions where migration is differentiated by age/location within a career lifecycle (e.g. Champion 2012; Fielding 1992). The ATTREG project and subsequent work outlined the empirical regularities that appear to exist between indicators of these different forms of inter-regional mobility at the scale of NUTS2 regions across the EU for the period 2001-07 – namely, a picture of generalised mobility across Europe from north and east toward south and west that holds with regularity (increasing and positively correlated inward mobility for all working age groups and tourism) for three quarters of the regions for which we have data.

However in this short paper we are interested in exploring the policy implications of such interactions rather than reiterating the argument that forms of mobility inter-relate. Thus we have generated a regional typology according to forms of mobility attracted and their intensity, which relates to different challenges (or 'policy spaces') faced by policy agencies with an interest in regional development, with the aim to generate 'districts in the multi-dimensional variables space' in order to assess the nature of the mobility problematic in different regions¹⁵. Such typology is based on multi-year averages on four measures of mobility measured at the region of destination at the level of 287 NUTS2 regions

¹⁵ Clustering in the case of regional indicators tends to involve a degree of 'messiness' where clusters may have fuzzy boundaries. However this does not invalidate the discussion of the mobility challenges for the groups of regions: the clusters' validity in terms of being able to distinguish between different characteristics has been tested using ANOVA tests on regional features that had not been used in the construction of the typology. The clustering algorithm is based on the use of the Ward method of hierarchical clustering (for methodological issues and applications, see Mangiameli et al. 1996: 402).

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across the ESPON space. These are the annual net migration rates generated through a residual population model for 2002-07; the rates of annual net migration for two age cohorts (15-24 and 50-64 years old); the visitor arrival rates as the number of recorded persons staying in registered commercial establishments per 1,000 head of resident population.

Map 2.10 maps out this typology. 218 regions are included in four 'mainstream' clusters (according to the theory): net migration rate at all ages correlates positively to visiting rates, and four combined levels of intensity of the two variables can be distinguished, ranging from negative/moderate to very strong attractiveness for visitors as well as migrants in the 2001-07 period.

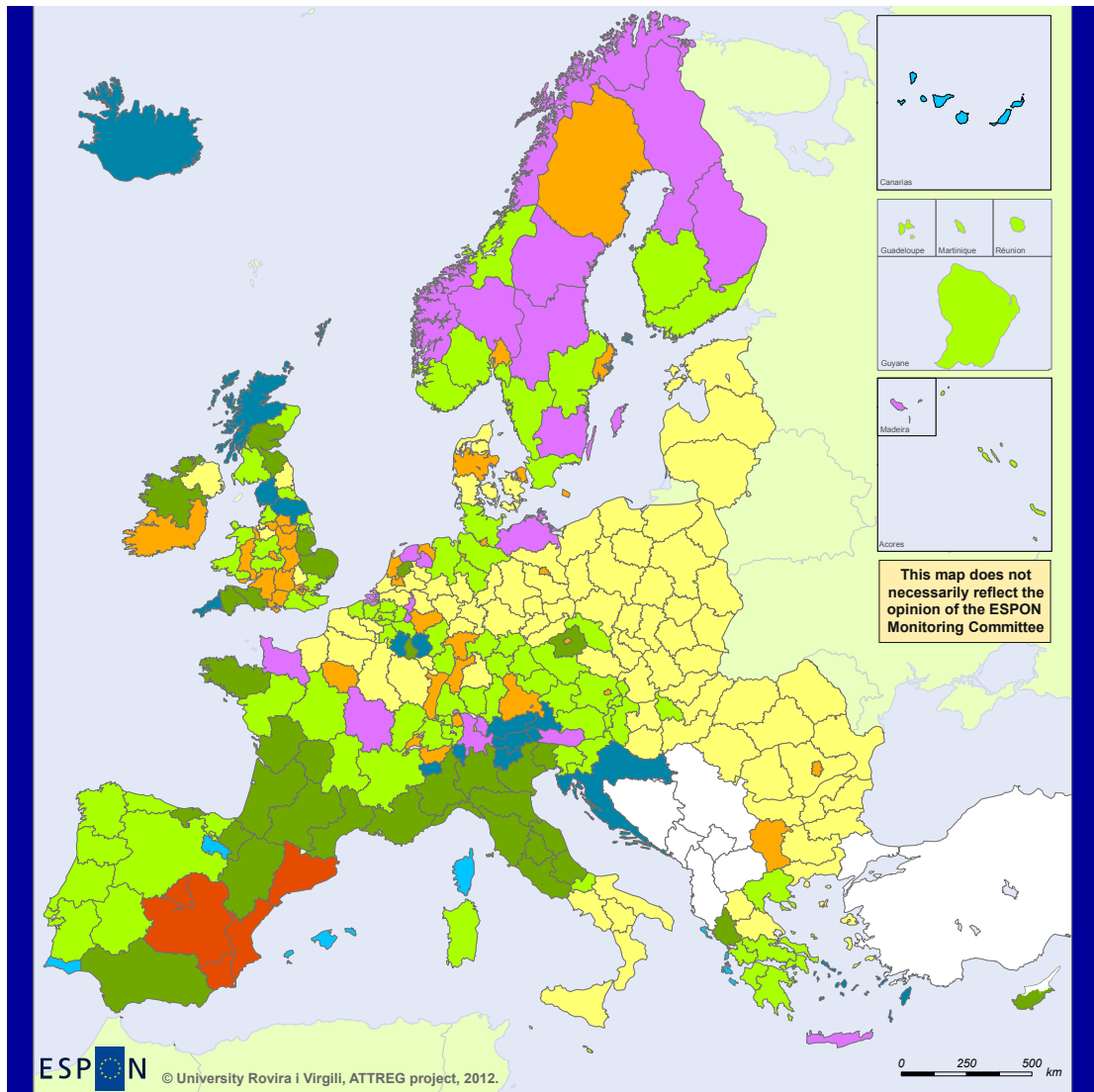
- Cluster 1 (coloured light yellow in the map) includes 90 regions, half of which are in the post-2004 member-states but also include areas of Germany, the Netherlands and northern France, experiencing on average net out-migration of resident population across all age groups and relatively low rates of visiting;
- Cluster 2 (light green) is made up of 79 regions mainly in the older member-states of the EU15 with (on average) net in-migration rates and a mid-level visitor rate;
- Cluster 3 (darker green) groups 34 regions mainly located on the western Mediterranean arc from Catalonia to Lazio, the Italian Adriatic coast as well as the Atlantic seaboard, registering moderate to high levels of both net migration and visitor rates;
- Cluster 4 (light blue) is a group of 5 regions made up mainly of Mediterranean regions where the data suggests that there have been generally very high levels of net migration combined with high levels of visiting.

The remaining 69 regions are in four other clusters combining characteristics that remove them from the main axis of increasing attractiveness across all types of mobilities. In this regard they could be thought of as either having actively 'specialised' in attracting particular audiences or having become specialist by accident. These four clusters are:

- Cluster 5 (orange) where net migration rates for the younger age cohort (15-24 years old) are associated with net out-migration by those in the older age cohort (50-64 years old). This is a group of 37 regions, mostly metropolitan and capital city regions, plus some university-focused non-metropolitan areas, which are experiencing demographic rejuvenation.
- Cluster 6 (lilac) is a group of 23 regions where net in-migration by the older cohort is combined with net out-migration by those in the younger age cohort. These are mostly located in northern and Baltic Europe. They are mostly aging but could also be considered 'retirement regions' that attract because of their 'soft' amenities and natural endowments.
- Cluster 7 (darker blue) is a group of 16 'tourism specialist' regions that experience relatively modest rates of net migration in comparison to the rate of visitor arrivals. Among them there are mostly mature destination regions in the Alpine arc and recreational destinations in the EU core.
- Cluster 8 (red) is made up of 6 Spanish regions including the Madrid community, Catalonia and their neighbours, whose high attractiveness for tourism has reached the natural upper bound of maturity in the early 2000s but have continued to be attractive throughout the decade for both highly skilled mid-career migrants and younger low-skilled immigration related to the construction and tourism sectors.

Considering the characteristics of regions clustered together helps understanding something more of these mobility patterns. Thus, Cluster 1 regions recorded a statistically significantly lower per capita GDP and higher unemployment rates in 2001 than the other cluster averages, whereas Cluster 5 had a significantly higher average p.c. GDP. This can be interpreted as an economic push whereby there are low rates of visitor arrivals to – and net out-migration from – 'source' regions with low levels of economic wealth creation and high levels of unemployment.

Map 2.10 Typology of attractive regions by types and intensity of mobilities attracted



ESPON © University Rovira i Virgili, ATTREG project, 2012.

EUROPEAN UNION
Part-financed by the European Regional Development Fund
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Regional level: NUTS 2
Source: Own elaboration on EUROSTAT/LFS data
Origin of data: EUROSTAT/LFS data
Authors: I. Smith, A.P. Russo, F. Brandajs.
© EuroGeographics Association for administrative boundaries

Regional typology of inter-regional mobility rates

NUTS 2 regions (2006)

□ NO DATA

Typology

Cluster 1 (low level net mobility)

Cluster 2 (mid level mobility)

Cluster 3 (mid to high level net mobility)

Cluster 4 (high level mobility)

Cluster 5 (young net in migration)

Cluster 6 (older net in migration)

Cluster 7 (tourism specialist)

Cluster 8 (high migrant low visiting)

However regions that have higher rates of in-migration and visitors are not readily distinguished amongst themselves by reason of their economic and labour market characteristics alone. As demonstrated in ESPON (2012), there are a bundle of territorial capital indicators other than the traditional set of economic and job market variables which may explain attraction in relation to mobile populations. For the purposes of this paper we are however more interested in exploring the relationship between the profiles of mobility and economic change. Hence Table 2.9 sets out a series of economic and labour market change indicators for the six clusters with a membership of at least 10 regions (Clusters 4 and 8 are thus not considered). These changes (averaged within each cluster) are recorded for a period both leading up to and following on from the fiscal crisis of 2007-08.

Table 2.9 Economic and labour market performance of cluster types

Cluster #	N	change in GDP per capita		change in residents in employment (LFS estimate)		change in resident unemployed (LFS estimate)		Ratio of annual net migration to 1 year cohort aged 20 years
		2001-07	2007-10	2001-07	2007-12	2001-07	2007-12	
1 (low level mobility)	81	57.6	3.0	5.6	-2.4	-14.2	35.9	-0.05
2 (mid-level mobility)	71	29.8	-1.2	7.4	-0.9	20.3	47.5	0.30
3 (mid-high level mobility)	27	28.2	-4.9	14.2	-0.9	17.5	93.8	0.90
5 (young net in-migration)	34	31.8	-3.7	6.7	2.7	31.7	40.3	0.30
6 (older net in-migration)	17	26.9	1.8	7.5	-0.8	4.1	51.0	0.00
7 (tourism specialist)	12	29.7	-4.2	8.0	-0.8	15.0	45.6	0.60

Source: own elaboration on EUROSTAT data

Whereas Cluster 1 regions tended to experience net outward migration in the period 2001-07, they experienced a significantly higher average growth in GDP per capita over this period than the other clusters and a significant decline in the number of working age adults recorded as unemployed. Thus, out-migration did not appear to have dampened economic activity in this cluster. On the contrary, the figures suggest that regions that received on average more people in the years preceding the economic crisis experienced the most torrid downturns in subsequent years: a larger slump in p.c. GDP and a significantly larger hike in unemployment for the period 2007-12. GDP growth however does not seem to correlate at all with increasing levels of inward mobility as it is not possible to distinguish between the clusters of regions receiving more mobile population from those that receive fewer people.

The size of a year cohort in their early 20s is indicative of the importance of young people living in the region who are moving into the regional labour market.¹⁶ The figures indicate that the regional labour markets in Cluster 3 are exposed to extra-regional labour migration by 90 % – by contrast Cluster 2 regions are only exposed to 30 %. Internal inter-regional migration data might suggest that Cluster 5 regions are also highly exposed to in-flows of labour, but that this is hidden in the net migration figures. These mainly metropolitan regions are operating as a form of escalator where in-

¹⁶ The OECD has used a similar indicator to measure the importance of migration to territorial labour market dynamics drawing a comparison to the ratio of foreign inward investment to indigenous investment within a regional economy as an indicator of foreign exposure (OECD 2010).

flows of younger adults are balanced by outflows of older workforce; they appear to have benefited from migration-enhanced rejuvenation that contributes to high levels of economic output and the generation of employment even during economic downturns, although on-going economic growth in these regions does not appear to be greater than the accumulation of 'spare labour' since unemployment numbers grew both during the pre-2008 period of growth and during the economic downturn. Clearly these figures focus on gross flows of migrants and not actual flows. However even with this caveat, it might be argued (as is done in OECD 2010) that regions need to be mindful of their exposure to external inputs in their regional economies in order to benefit from the advantages that spring from the mobility of labour.

III. THE POLICY DIMENSIONS OF MOBILITY

Following up with the characterisation of clusters in the previous section, and using indications coming from the more qualitative work carried out in ATTREG at case-study level, our typology nuances a series of challenges or 'policy spaces' for regional policymakers who aim to mould regional development through the facilitation or influencing of mobility. For 'mainstream' Clusters 1-4, policymakers face opposite situations related with a generalised lack (1, and to a lesser extent 2) and excess (3 and 4) of inward mobility.

- For regions in Cluster 1, the low levels of inward mobility were not problematic throughout the early 2000s because outward migration appears to have helped tackle the issue of spare labour. However by 2007-08 these regions had (mostly) converged with the bulk of the EU, approaching a problematic juncture, whereby growth may deflate if it is not sustained by human capital development (and indeed regional disparities have widened in the last years). Opportunities in this sense may come from the facilitation of return migration, or the attraction of workforce from outside the EU (especially at its eastern border).
- For Cluster 2 regions, the main issue is to understand whether they are operating at levels of mobility that are easily integrated in the local structure of the labour market. Many of these arguably attract 'less than they could' given their territorial endowments and their resilient profile in terms of labour market exposure: thus policies that facilitate attraction and even more so retention (for instance, through investments in territorial capital and its branding) might be effective.
- Regions in Cluster 3 and 4 have needed to face up to the challenges of high levels of visiting and migration. Smith & Atkinson (2011) suggest that the high levels of migration may be at the very least a symptom of labour market vulnerability. Equally these regions are more heavily dependent upon tourism both in terms of exposing regional labour and housing markets to external pressures and shocks. Specific initiatives to favour labour market integration and regulate/upgrade tourism development were needed to prevent problems during the oncoming downturn; in most cases, that did not happen.

For the regions in the groups of 'specialist' clusters (5 to 8), where one of the dimensions of inter-regional mobility is working in the opposite sense to the other, the policy spaces face the challenges of potentially problematic interactions between inward mobilities.

- Cluster 5 can be simply accepted as regional escalators. Retention policies for students at the end of their career may allay their characteristic of being 'revolving door' regions with a transiency of talents; moreover careful campus development and planning may harness the gentrification processes typical of 'town and gown' contexts where the attraction of the young and talented favours the expulsion of the older and less protected citizens, leading to issues of exclusion.
- Cluster 6 regions experience the opposite situation of 'silver' in-migration and high visitor rates, but out-migration of the younger workforce. This may become problematic in the long term, although not necessarily in pure economic terms: these regions should be prepared to invest in health services and social support for an aging population.
- Cluster 7 regions may be effectively managing the demand for residence in the region but may then need to deal with a gentrification of residence. It may be appropriate in these circumstances to keep a tight grip on the housing market through regulatory arrangements and discourage potential low-income migrants that might be tempted by their lovely holidays.

- For Cluster 8 regions, which are currently under great strain from the crisis, an inversion of the immigration trend experienced until 2007 is natural and welcome; however they still need to think how to become attractive (or retentive) again without over-exposing themselves to the exhausted tourism and real estate-driven growth model.

IV. FINAL REFLECTIONS: FROM A LOCAL TO A PAN-EU APPROACH

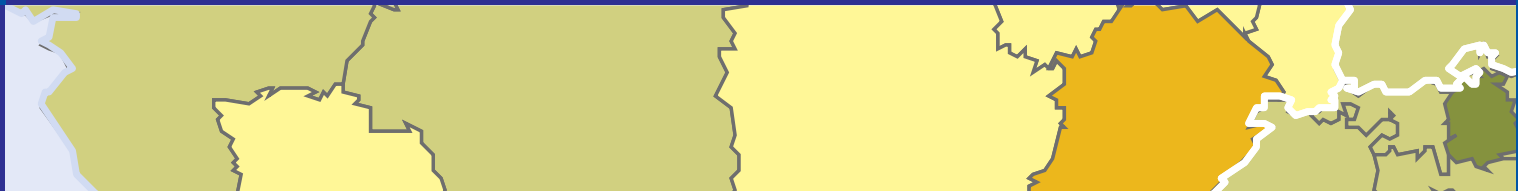
In our approach, none of the ‘mobilities’ that regions have been able to activate (either outward or inward) are *per se* problematic, however they did show a certain correlation to trends and phenomena in the post-crisis period that opens the field for adequate responses and policy discourses. However, we want to conclude with a reflection on some mobility-related issues as well as some misunderstandings produced by a ‘sedentary’ policy approach, shifting to a prescriptive pan-European approach to population mobility, including tourism (which is now mostly dealt with in purely sectorial terms). Among many more that are listed in the ATTREG final report (ESPON 2012) we focus here on the following pointers:

- It is not only work-related mobility that can produce positive externalities in target regions. For instance, ‘silver migration’ of affluent groups to certain southern regions or to coastal areas in northern countries has led to the development of a form of economy which goes beyond the traditional forms of tourism exploitation and is arguably more sustainable. In general, there is evidence that there is room for synergies between labour attraction and tourism-oriented strategies.
- Positive effects can be seen not only in destinations of mobility but also in origin regions (Katseliet et al. 2006; Gagnon & Khoudour-Castéras 2011), where over time, the prospect of better future opportunities abroad has encouraged people in origin countries to acquire education and skills. This may also have spilled over into an increase in educational policies and in general measures dedicated to human capital, including services to specific sectors for retaining population.
- The evidence provided by ‘overheating’ regions (Cluster 4 and 8 in our analysis) indicates the presence of thresholds representing a balance between inflows of new regional users and quality of life and access to resources for local residents, beyond which local economic systems may become less attractive and/or resilient. In this sense it may be appropriate to develop policies that support mobility of the working population, especially in situations when a region approaches a ‘critical condition’. Such approaches could be developed in terms of partnerships of shared responsibility between receiving and sending regions; this would provide greater flexibility for these regions and more security for the mobile population.

As a general conclusion of this short paper, we gave some hints that human mobility should be incorporated as an important and ‘dynamic’ variable in ESPON research supporting territorial policy. On one side, it is important to consider at all times that human mobility is determined by – and determines – changes of territorial performances. Therefore, projections of dynamics, visions and scenarios in the next decades cannot be considered mobility-free. On the other, attention needs to be paid to the full effects that specific policies engender and population movements contribute to ‘propagate’ in space, from the point of view of regional development and territorial cohesion, and touching upon all the key themes of the European Structural and Investment Funds (ESIF). The uneven development of EU regions and the identification of mobility patterns taking place in relation to changes in perceptions and regional opportunities should reinforce the idea of creating an agenda dedicated to supporting mobility in its various forms, thereby contributing to the ‘founding’ objective of a free circulation not only of goods but also of people (Servilloet et al. 2013). Rather than encroaching upon national sovereignty, an integrated approach should activate EU, cross-regional and regional initiatives that facilitate and in some cases even stimulate the mobility of population, promoting the possibility for people to spend part of their life-cycle in a different context and assisting all those existing forms of mobility that are neither just tourism-based nor life-long migration. As the methodological difficulties encountered in the ATTREG project demonstrate, this approach stands upon the development of a monitoring system able to provide updated EU-wide data on mobility at the finest possible scale.

REFERENCES

- Champion T. (2012), Testing the return migration element of the 'escalator region' model: an analysis of migration into and out of south-east England, 1966–2001. *Cambridge Journal of Regions, Economy and Society* 5(2), pp. 255-270.
- Eliasson K., Lindgren U., Westerlund O. (2003), Geographical Labour Mobility: Migration or Commuting? *Regional Studies* 37(8). 827-837.
- ESPON (2012). *The Attractiveness of Regions and Cities for Residents and Visitors – ATTREG.Final Report*. Luxembourg.
- Fielding A.J. (1992), Migration and Social Mobility: South East England as an Escalator Region. *Regional Studies* 26(1). 1-15.
- Gagnon J., Khoudour-Castéras D. (2011), *Tackling the Policy Challenges of migration. Regulation, Integration, Development*. OECD, Paris.
- Green A.E., Hogarth T., Shackleton R.E. (1999), Longer distance commuting as a substitute for migration in Britain: a review of trends, issues and implications. *International Journal of Population Geography*, 5(1). 49-67.
- Hall C.M., Müller D.K. (2004), *Tourism, Mobility and Second Homes. Between Elite Landscape and Common Ground*. Channel View, Clevedon.
- Katseli L.T., Lucas R.E.B., Xenogiani T. (2006), *Effects of Migration on Sending Countries: What do we know?* OECD Working Paper No.250.
- Mangiameli P., Chen S.K., West D. (1996), A comparison of SOM neural network and hierarchical clustering methods. *European Journal of Operational Research* 93(2).402-417.
- OECD (2010), *OECD Territorial Outlook*. OECD Publishing, Paris.
- Servillo L., Atkinson R., Russo A.P. (2012), Territorial Attractiveness in EU Urban and Spatial Policy: A critical review and future research agenda. *European Urban and Regional Studies*, 19 (4). 349-365.
- Sheller M., Urry J. (2006), The new mobilities paradigm. *Environment and Planning A* 38(2). 207-226.
- Smith I., Atkinson R. (2011), Mobility and the smart, green and inclusive Europe, *Local Economy* 26(6/7). 562–576.
- Williams A.M. (2013), Mobilities and sustainable tourism: Path-creating or path-dependent relationships? *Journal of Sustainable Tourism* 21(4). 511-531.
- Williams A.M., Hall C.M. (2000), Tourism and migration: new relationships between production and consumption. *Tourism Geographies* 2(1). 5-27.



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