

11. THE UNEVEN TERRITORIES OF THE EU2020S THROUGH A COMPOSITE INDEX AND TERRITORIAL CLUSTERING

*Valerià Paül Carril <v.paul.carril@usc.es>
Departamento de Xeografía
Universidade de Santiago de Compostela*

*Alejandra María Feal Pérez <alexfealperez@gmail.com>
Instituto de Estudos e Desenvolvimento da Galiza
Universidade de Santiago de Compostela*

11.1. Introduction

The SIESTA Project research has shown the regional and, when possible, urban dimension of the EU2020S. The basic conclusion that stands out most is that achieving the smart, sustainable and inclusive growth which is envisaged through the EU2020S (European Commission, 2010a) is far from near, not only in terms of time but also in territorial terms. According to Çolak and Ege (2013), it is simply “too far to reach”.

In relation to the temporal dimension, the different headline targets that have been shown are not going to be achieved in a majority of regions or member states and indeed the national targets are in general disappointing in the sense that they do not guarantee that the EU2020S overall aims are attained. It is true that the European Commission (2011) has acknowledged that it is not implicit that all the regions can or should reach the 2020 targets, accepting that for some regions, the distance to the target is simply too great. However, in practice the current gap in a large number of regions means that the EU2020S implementation is truthfully not feasible even by 2020 in the EU as a whole.

With regard to the territorial dimension, the SIESTA Project research has demonstrated how smart, sustainable and inclusive dimensions of growth are territorially uneven and dissimilarities across the European territory are noticeable and, for several variables, even dramatic. An essential inference derived from these very general verifications is that policy-makers have to take into account that required policies differ enormously between regions and cities, not only for the general scoring or ranking of each individual geographical unit in each one of the topics that are embraced by the EU2020S, but also because of the combination of all of them.

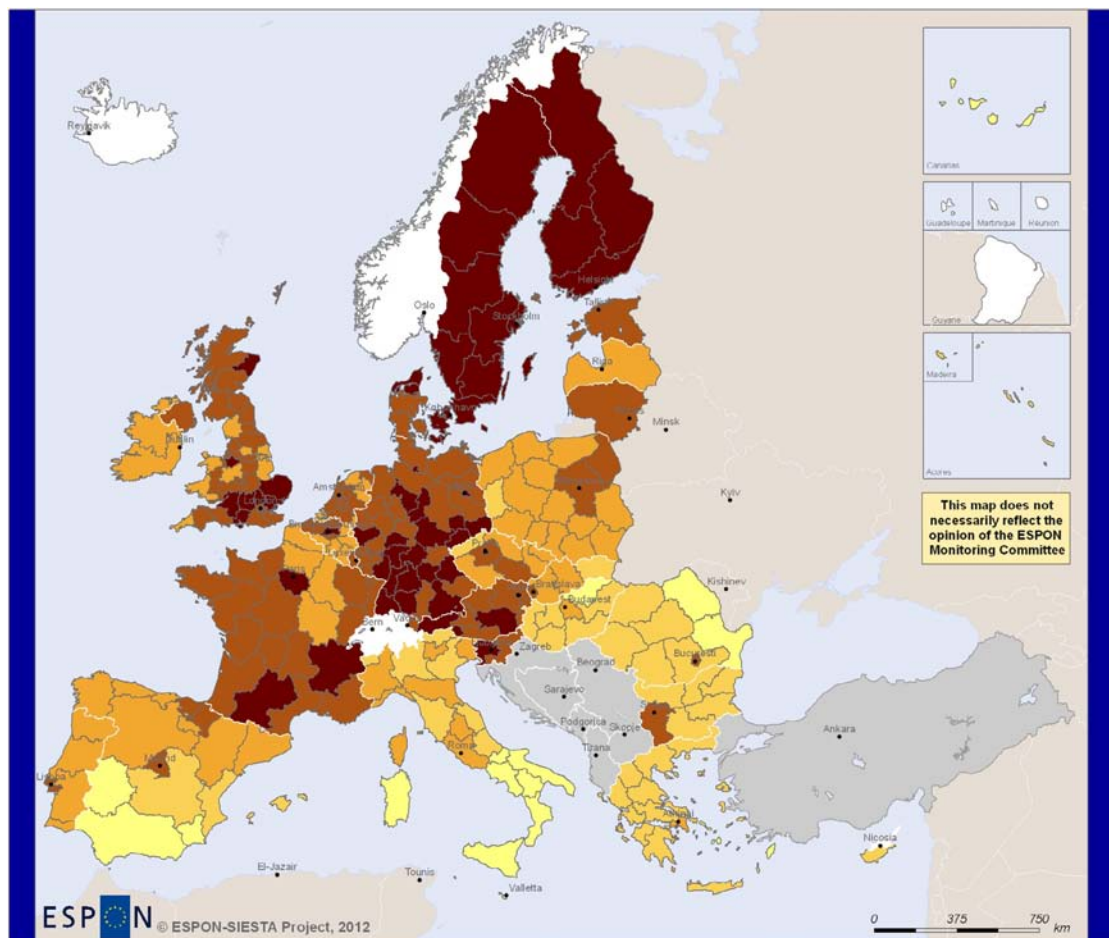
11.2. Unbalanced Territorial Interpretations of the EU2020S through a Composite Index

In order to assess the overall fulfilment of the EU2020S, a composite index has been developed by the SIESTA Project. This composite index measures the distance of regions from eight EU2020S headline targets. A region would score 100 if it had reached all eight targets, while a region farthest away from all eight targets would score 0. This methodology is inspired by the Lisbon index facilitated by the 5th Cohesion Report (European Commission, 2010b: 195-196). The targets are obviously those officially set by the European Commission, given that the targets nationally set are highly inconsistent and indeed not all the member states are currently facilitating national targets.

This composite index is represented on Map 11.1 for 2009-2010, taking into account that there are three headlines which are only available at the member state level (the “20/20/20”) and a fourth one has different scales depending on the country (people at-risk-of-poverty or social exclusion).

The first point to retain is that the index is strongly stressed due to the fact that the EU2020S covers a wide range of topics, a range that has been specifically translated into headline targets. In other words, although the regions scoring more are typically accomplishing or almost accomplishing the eight targets, all the regions in intermediate positions are in very different situations which vary from case to case and imply different reasons for their position in the ranking, thus implicitly must be managed through diverse policies and should be the object of different recommendations. In fact, two regions scoring the same might account for very different realities. This is true, but the EU2020S is plural in its very nature and the objective of the composite index is to reflect its general fulfilment at the regional scale, rather than scoring each one of its constitutive topics as has been done across the SIESTA Project in each one of the different thematic sections.

Map 11.1 shows that top positions in the achievement of the regional EU2020S composite index for 2009-2010 are all Scandinavian regions, plus Southern Germany, several French regions and South England (basically, North of London, but also Hampshire). In Sweden five regions register an index above 90%. This pattern broadly coincides with two of the three corridors repeatedly identified in relation to R&D and innovation performance (Bundesamt für Bauwesen und Raumordnung, 2006: 30): Midi-Pyrénées (France) to Bayern (Southern Germany) and Denmark to Finland. Some capital regions (Île-de-France, Greater London, Berlin, Brussels, Copenhagen, Ljubljana) score particularly high as well and are included in the group of regions above

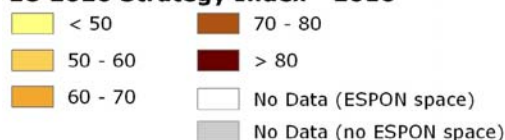


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EU 2020 Strategy Index - 2010



Map 11.1. Regional EU2020S composite index, combined years from 2009 to 2010.

80%. The third corridor which is usually defined (between Austria and London) is less clear herein, because there are regions scoring relatively poor in relation to their neighbouring geographical units (i.e. Wallonie in Belgium and Picardie or Nord-Pas-de-Calais in France).

In contrast, bottom positions lay in Eastern Romania, Észak-Magyarország (Hungary), Southern Italy and Southern Spain, plus Spanish outermost regions; some of these regions lagging behind score less than 40%. In

Spain or Romania, there are dramatic imbalances between regions, with high figures (Madrid, the Basque Country and Navarra in Spain, Bucureşti-Ilfov in Romania) in countries dominated by low figures.

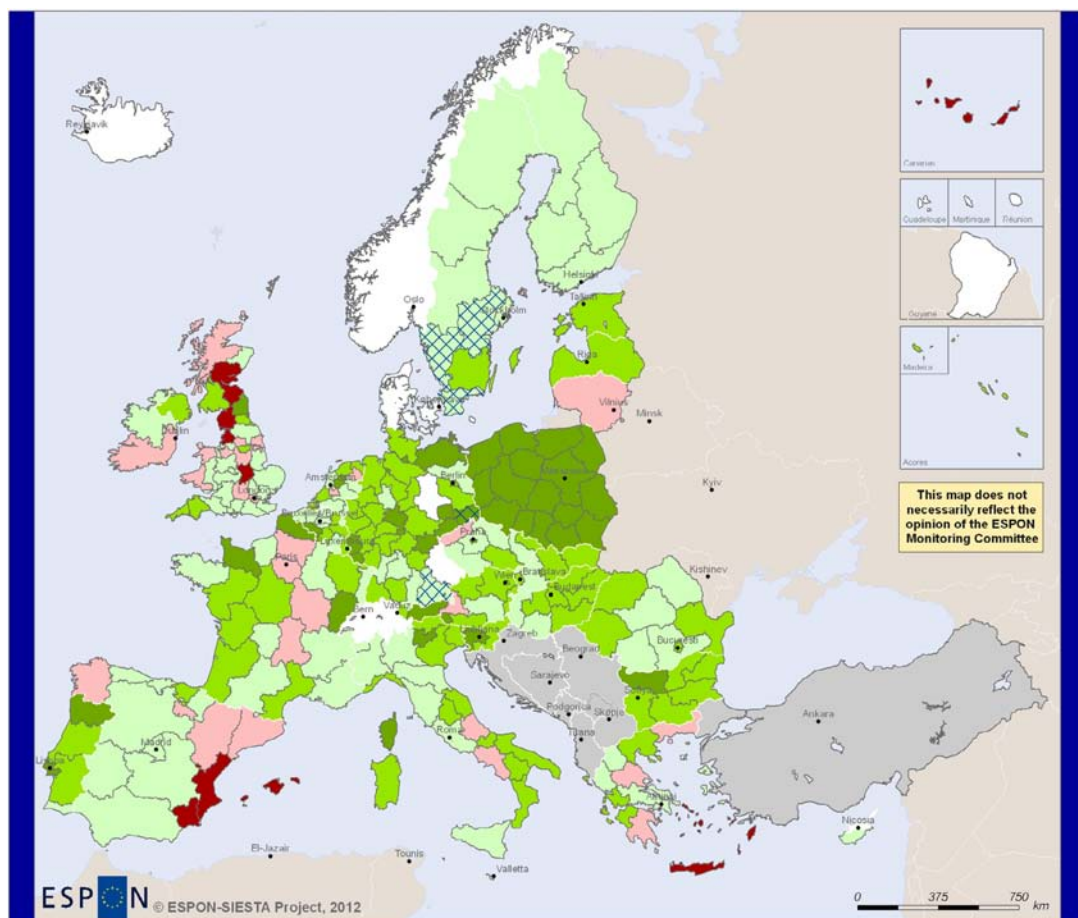
In general, Eastern Europe tends to score worse than Western Europe and the Iron Curtin seems to still be quite easily appreciable on the map, although the Eastern capital regions in general score better and have already attained average EU values: Mazowieckie-Warsaw in Poland, Közép-Magyarország-Budapest in Hungary, Yugozapaden-Sofia in Bulgaria, Bucureşti-Ilfov in Romania, etc.

In order to grasp the regional change experienced in the last few years with available data (2005-2010), Map 11.2 has been prepared. Importantly, this map avoids the non-regionalised data. That means that the change in the composite index is based on the four headline targets for which there are datasets (on employment, GERD, drop-out rate and tertiary educated population), excluding the three on environment and energy and the one on poverty.

Although the pattern is not evident, the important issue to retain is that Eastern and Central European regions (plus Portugal) progress, notably Poland, while Scandinavian and Southern European regions remain stable, but the former are on top and that means that progress is statistically difficult to take place, while the latter are scoring poorly (Map 11.1). It is worthwhile mentioning that in 2010 there are five regions that score 100%, meaning that the four considered targets have been already reached therein: Västsverige, Sydsverige and Östra Mellansverige in Sweden, and Dresden and Oberbayern in Germany.

The regions that are decreasing their position in Map 11.2 are mainly in Greece, Eastern Spain (plus Galicia and the Spanish outermost regions), France, Lithuania and the British Isles. The causes associated with this downgrading are diverse, including:

- In Eastern Scotland, Lancashire and Leicestershire, Rutland and Northamptonshire (in the UK) in 2005 the four targets were reached or almost reached, but in 2010 the figures are worsening because of several reasons: in Eastern Scotland and Lancashire because GDP invested in R&D has dramatically decreased, but in Leicestershire, Rutland and Northamptonshire the reason is the decrease in this issue, but also worsening levels of drop-out rates and tertiary educated population rates.



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Change 2005-2010 - EU2020S index (4 headline targets)



Map 11.2. Regional change in the EU2020S composite index (4 headline targets with available regionalised datasets), 2005-2010.

- In Illes Balears, Comunitat Valenciana and Murcia (Spain), the drop in employment is clearly the underlying cause for worsening conditions, but also the worrying increase of the early leavers rate; and unemployment is the same key reason for the diminution in Greek regions such as Kriti, together with the fall of tertiary educated people.
- Ceuta and Melilla (Spain), which are the regions scoring worse in 2010 accounting for the four variables (19 and 24%, respectively),

have suffered a severe decrease as well in tertiary educated population.

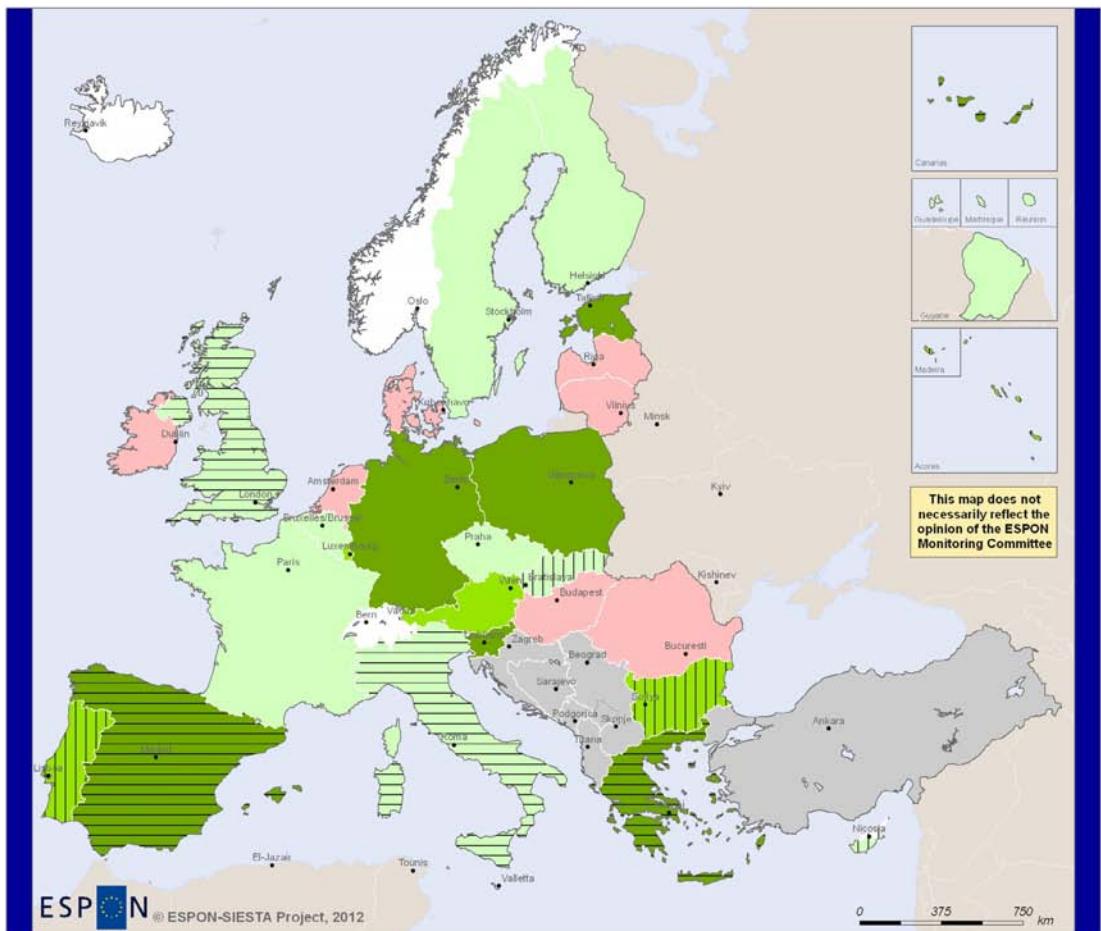
- If in the UK regions the EU2020S is almost accomplished in 2010 by each region and the decrease only changes the overall positive situation a little bit with regard to the EU2020S at the regional scale (Map 11.1), in Spain or Greece the EU2020S implementation remains substantially very poor and for this reason the diminution is frustrating.

The territorial change from 2005-2010 for all the smart, sustainable and inclusive topics of the EU2020S through the eight headline targets can only be assessed at the state scale (Map 11.3). The overall picture suggests that the EU2020S is going well in the sense that the majority of countries seem to be improving (19 out of 27).

However, it has to be pointed out that four countries have an overall positive behaviour but in fact worsen in the five socio-economic headlines and four countries have an overall improvement but in their cases the three environmental headlines worsen. The latter is the case of Slovakia, Cyprus, Bulgaria and Portugal and the specific headlines that change are different in every nation.

The case of the countries worsening in the socio-economic targets is more crucial, because three countries especially (Spain, Greece and Italy) show a dramatic diminution in these issues, particularly because of a substantial rise in unemployment. In these three countries improvement in environmental issues of the EU2020S statistically compensates the distance that is being generated in relation to the EU2020S due to socio-economic topics. But this environmental advance is artificial in the sense that it is mainly motivated by the decreasing levels of economic activity that are automatically reflected in a decline of energy consumption and of GHG emissions, so they cannot be truly considered sustainable growth, following the EU2020S standards.

Because of these comments, the overall picture of Map 11.3 has to be changed and clarified in the sense that the EU2020S is not really successful in each one of the countries, but in fact far from being achieved.



EU2020S index country evolution 2005-2010



Map 11.3. Change in the EU2020S composite index by countries, 2005-2010.

11.3. Territorial Clustering of the EU2020S: towards a Great Division?

Beyond the composite index, a cluster analysis has been carried out by the SIESTA Project. While the composite index appraises the territorial ranking in

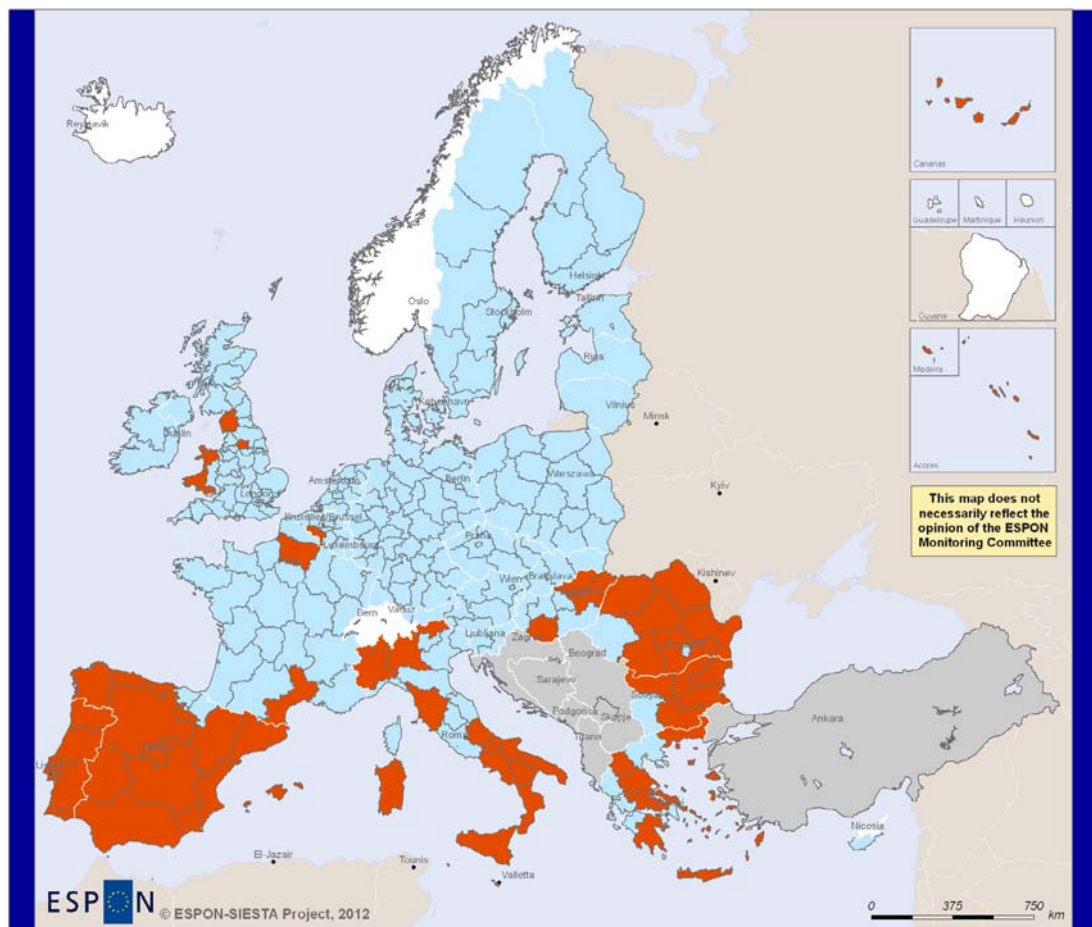
relation to the EU2020S understood as a monolithic block, clustering detects groups of regions which are close to each other in the sense that variables themselves combine. Again, clustering is only possible with data available regionally, that is, the four headline targets used for Map 11.2 (for 2009 and 2010). In addition, GDP per capita in pps (2009) has been incorporated because of its obvious implications for measuring growth.

The first map of clusters is Map 11.4, which reflects a basic divide in the EU between two blocks. Elaborated through principal component analysis (PCA), it suggests that with regard to the EU2020S the basic distinction has to be made mainly between the North and the South. In analysing the geography of Europe, usually a division has been made between Eastern and Western Europe, but when the four available headlines according to the EU2020S are mixed together, then the basic divide is between the North and the South. The former is in general already accomplishing the EU2020S, while the latter is challenging this strategic document of the EU.

This is a substantial finding, because it proposes that the EU2020S does not have to consider the distinction between the member states pre-2004, on the one hand, and post-2004, on the other. It rather implies that regional scale matters and the attention must be paid to the Southern and Mediterranean Europe, plus the South-East, as a “problematic” macro-region that needs to be addressed in order for the EU2020S to be achieved across Europe. Obviously, if the sustainable growth items were included, the picture might be different (poverty probably would not modify this analysis too much), but it has to be reiterated that there are no available datasets at regional scale for these issues.

As suggested in Graphic 11.1 and Map 11.4, Southern regions have low shares of higher educated population and very high rates of early school leavers, display very low levels of employment, expend poorly their GDP for R&D and account for a low GDP per capita. In contrast, Northern regions score comparatively better in all these items.

Importantly, the regional scale is essential because in several countries there are important variations, for instance in Italy or in Hungary. In France, Picardie and Languedoc-Roussillon are in the Southern cluster, but the rest of the country is in the Northern. In Spain the situation is the opposite: the Basque Country and Navarra are in the Northern cluster, but the rest of the country is in the Southern. In Bulgaria, Romania or Greece, the respective capital regions escape exceptionally from the Southern pattern, but the contrast between South and North does not seem to generally correlate in any case with the urban-rural reality of the EU.



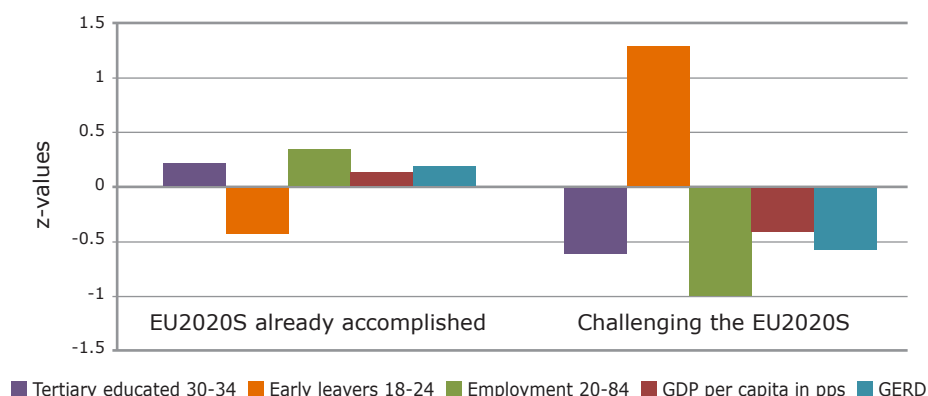
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- EU2020S already accomplished
- Challenging the EU2020S
- No Data (ESPON space)
- No Data (no ESPON space)

Map 11.4. First regional cluster analysis: 'two blocks' result.

This early and rough EU2020S division of Europe can be refined with a second cluster analysis, with the same variables as the previous one (four EU2020S headline targets and GDP per capita in pps) but obtaining four clusters of regions (Graphic 11.2 and Map 11.5).



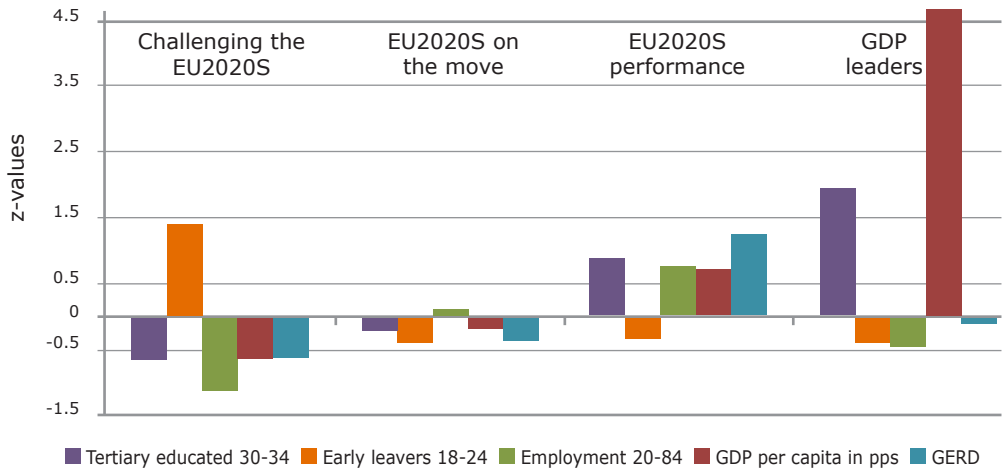
Graphic 11.1. First regional cluster analysis: ‘two blocks’ result.

The first cluster is mostly the same as the previous one and coincides with the same items expressed before: bad scoring in education, unemployment, GERD and GDP per capita, that is, seriously experiencing the current crisis and with several problems that tend to be accumulated and that move these territories far away from the EU2020S, thus challenging its implementation. In relation to the previous cluster analysis (Map 11.4), most of the specific regions that “escape” from this first cluster are capitals (Lisbon or Madrid) and Northern Italy; these regions are comparatively better, but in a first approach they were amalgamated within. In any case, this cluster masks the fact that there are regions scoring quite well in some specific items, for instance most of the Northern Spanish regions in tertiary educated population.

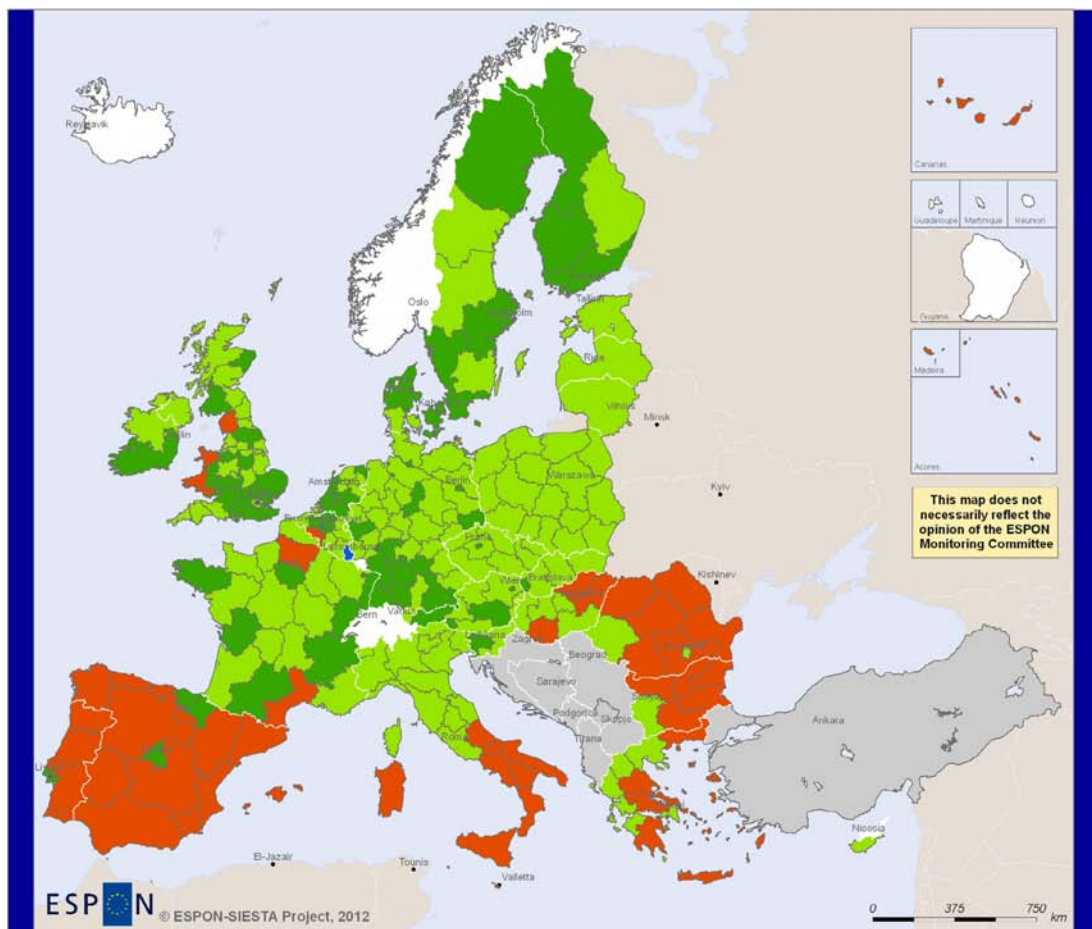
The second cluster consists of regions that do not tend to perform in most of the headline targets, except employment. That means that they are quite weak in tertiary education, early school drop-out, GDP per capita and/or GERD investment, being close to average levels, but in employment they score slightly better than the average. This second cluster is a kind of transition between the performing regions and the regions experiencing severe problems. They are a kind of intermediate situation in terms of the EU2020S implementation and they might advance if proper policies are put in place. The Eastern Baltic States and all Polish regions or all the regions of the Czech Republic and Slovakia (except their respective capitals) are clustered therein, at the same level as most of the typically Western regions or rural regions in Scandinavia or the British Isles; this is substantial as it shows that, according to the EU2020S, they are in quite a comparable, and potential, situation.

The third cluster consists of the performing regions scoring well in the headline targets set by the EU2020S. Arguably, these regions are the most dynamic and competitive in the EU economy and ready to compete globally. Unsurprisingly, the outstanding capital regions (London, Île-de-France, Madrid, Berlin, Wien, Prague, etc.) are comprised therein. Again, the three corridors that previous researchers have suggested for high levels of R&D and innovation are appreciated on Map 11.5: Midi-Pyrénées to Bayern, Austria to London and Copenhagen to Helsinki; even the well-known metaphor of the “blue banana” is easily seen, embracing most of the regions of the Benelux. The fact that these regions tend to score well cannot mask the fact that there are internal variations, with some regions having specific problematic issues according to the EU2020S.

The fourth cluster is defined specifically depending on high levels of GDP per capita: Inner London, Brussels and Luxembourg. These might be considered the best performing territories of Europe in terms of economic growth, but Graphic 11.2 suggests that they follow the EU2020S in an uneven manner. Indeed, and except for the data on GDP per capita and tertiary educated population, they are more similar to the second cluster than to the third.



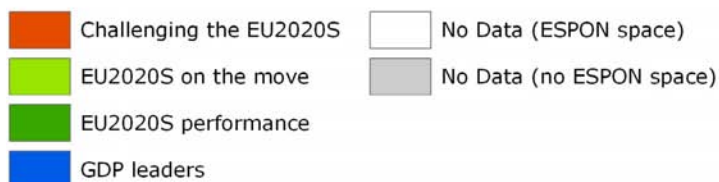
Graphic 11.2. Second regional cluster analysis: four clusters of regions.



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Clusters



Map 11.5. Second regional cluster analysis: four clusters of regions.

11.4. Concluding Remark

The composite index and the cluster analyses have shown how the EU2020S as a whole has an uneven geography, a conclusion that reinforces the previous sections of this book that have reported the complex territorial dimension of each one of the constitutive topics under the sustainable, smart and inclu-

sive pillars. In this sense, the SIESTA Project has provided important insights as it sets out which is the regional/urban starting point for implementing the EU2020S and, critically, it has clearly demonstrated that this regional/urban understanding of the EU2020S is pertinent, beyond the previous statements of its territorial blindness (Böhme *et al.*, 2011: 25). The open question that remains is how policies, especially the cohesion policy, will be able to face the challenges highlighted herein. However, what is also needed is that the spirit of the EU2020S is spread beyond the EU institutions and reaches each one of the regions and cities that have been analysed throughout these pages.

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