



ESPON TOOLS // GUIDANCE SHEET // DRAFT

ESPON REGICO

Comparing regions in multiple contexts

March 2021



Analysing regions often encompasses a comparison of regions in different regional contexts. From a policy point of view, it is often more interesting to relate the situation of a region with the situation of a wider set of regions (e.g. the national context) or to identify which regions fall above or below a regional average and thus need differently targeted supporting measures.

The ESPON REGICO tool offers multi-scalar territorial analysis (MTA) to analyse how the performance of regions varies in relation to a specific area. ESPON REGICO facilitates users, for example, to relate regions to the ESPON space, to their respective national borders or their closer vicinity (e.g. neighbouring regions, catchment areas of commuters). ESPON REGICO can be used as a tool for benchmarking or as a means to decide on the distribution of investments in the context of regional development. It is designed for regional planners and national planning institutions as well as for supra-national institutions.

In a nutshell: ESPON REGICO allows to analyse regions regarding various (relative) indicators in different spatial contexts and relations.

ESPON REGICO is available as web application via: <https://regico.espon.eu>

How ESPON REGICO works

ESPON REGICO is an interactive tool, designed to analyse regions based on a large set of indicators always setting the regions in comparison with three different regional contexts:

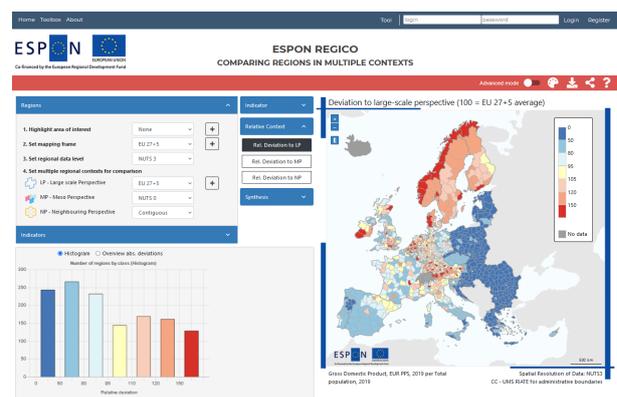
-  a Large-scale Perspective (e.g. ESPON Space)
-  a Meso Perspective (e.g. national context)
-  a Neighbourhood Perspective (e.g. surrounding regions)

Within the tool, the user can switch between different indicators and time horizons as well as regional contexts.



The tool provides a set of maps, graphs and statistical information and can thus be used for quick spatial analysis as well as profound spatial investigations.

Figure 1: Interface of ESPON REGICO



How to use the ESPON REGICO

In principle, ESPON REGICO is available without registration. Thus, all basic and advanced functions are available for unregistered users. A registration is however necessary to store custom settings and indicators.

If the user does not want to create a user profile, but wants to start working straight away, she/he can enter the tool by pressing the button TOOL in the header or press the button START.

Basically, the tool asks for two main entries:

- the setting of the regional scope of analysis
- the selection of an indicator

The interface further offers

- a menu bar at the top of the tool,
- the graph and table window at the lower left side,
- a map selection menu in the middle of the tool,
- the map window at the right-hand side.

Step 1: Setting the geographical scope

First, the work starts with highlighting the area of interest, which can be a particular NUTS-3 region, an EU Member State, a macro region or any other user-defined area.

Second, the mapping frame is set. This is the geographical area for which values will be calculated and displayed in the following maps.

Third, the regional data level defined. It determines the level of analysis as well as the indicators that can be used (i.e. for analysis at the NUTS-3 level, indicator values have to be available at NUTS-3 level).

Step 2: Defining the regional context / perspectives

Finally, the regional context levels are defined, with which the situation of each region is compared with. Start with the largest area:



Large-scale Perspective (LP)

The large-scale perspective area can be a pre-defined or custom area, defined by clicking on the .



Meso Perspective (MP)

The meso level is always an aggregate of the selected regional data



Neighbouring Perspective (NP). Neighbouring regions can be defined

- as bordering (contiguous) regions
- by distance in kilometres
- by driving time by car in minutes

All entries are selected via drop-down menus. Different limits for the neighbouring regions (distance in km, driving time) can be defined in the settings menu .

Step 3: Selection of an indicator

ESPON REGICO provides data from Eurostat and the ESPON 2020 database.

There are three different possibilities to select – either a) a predefined indicator (ratio), b) a custom indicator (ratio) or c) an uploaded indicator from the user.

- Selecting a predefined ratio, available in the tools database
- Building a ratio out of two absolute indicators (nominator/denominator) available in the tools database
- Uploading a user indicator (absolute values only!)

The availability of data as well as the values of the particular indicator for the respective study area can be checked via indicator maps of the nominator, the denominator and the ratio (Figure 2, Figure 3).

Values are expressed using metric symbols like “k” for thousand, “M” for million or “G” for billion.

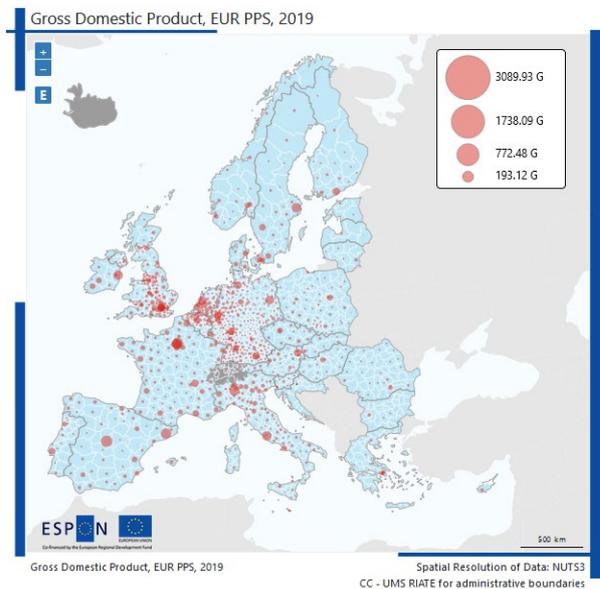
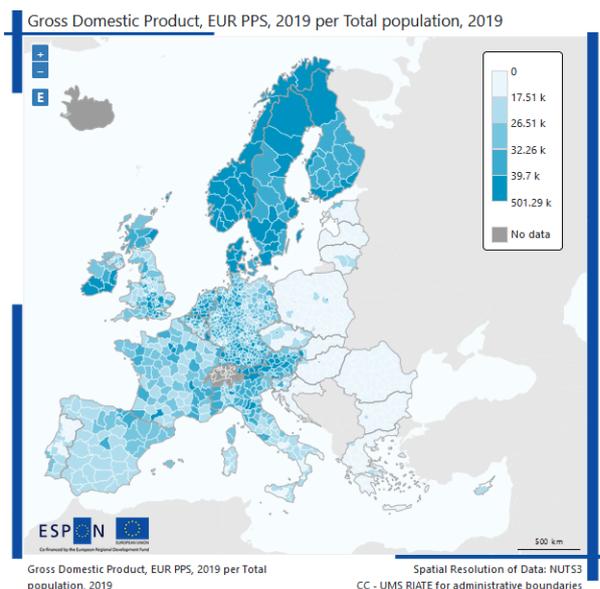


Figure 3: Indicator ratio map (example)



Step 4: Explore relative contexts

ESPON REGICO generates three RELATIVE CONTEXT maps, one for each regional context selected for comparison (Figure 4 to Figure 5). These relative context maps compare the situation in a region with the average value of the regional context (e.g. ESPON space). Using an index, the average value of the regional context is set to 100, thus a regional value of 120 implies that the region lies 20% above the average.

The following maps show results for the indicator GDP / capita.

 Comparing the regional situation with the Large-scale Perspective –the ESPON Space in the example – the relative weak position of Eastern Europe as compared to Western Europe becomes obvious. Further, the regions with GDP below average in the South are visible. (Figure 4).



Setting the regional context to the Meso Perspective of the national level – offers new insights. Using the same scale as before, the map reveals that for some countries differences within the national borders are rather low (e.g. Sweden, Estonia, large parts of Germany). On the other hand, national disparities in other countries become more pronounced, e.g. in Spain and Italy or France, Ireland and Romania (Figure 5).



The picture becomes even more diverse, when comparing the regions with their neighbouring regions, here defined as all regions within a radius of 100 km. This map clearly highlights the more prosperous “regional centres”, revealing the polycentric structure of Europe and the discrepancies between stronger agglomerations and their comparable weaker peripheries (Figure 6).

Figure 4: Output example for the Large-scale Perspective

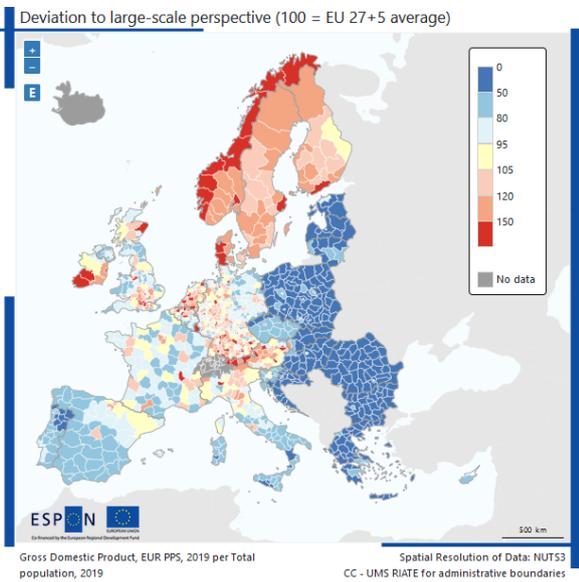


Figure 5: Output example for the Meso Perspective

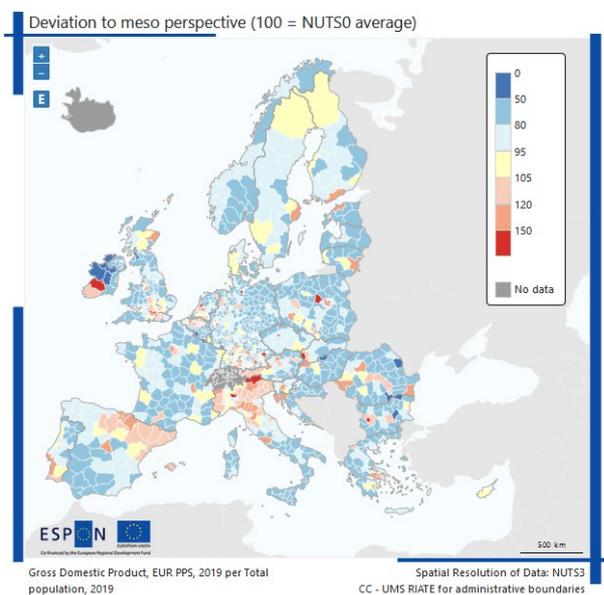


Figure 6: Output example for the Neighbourhood area

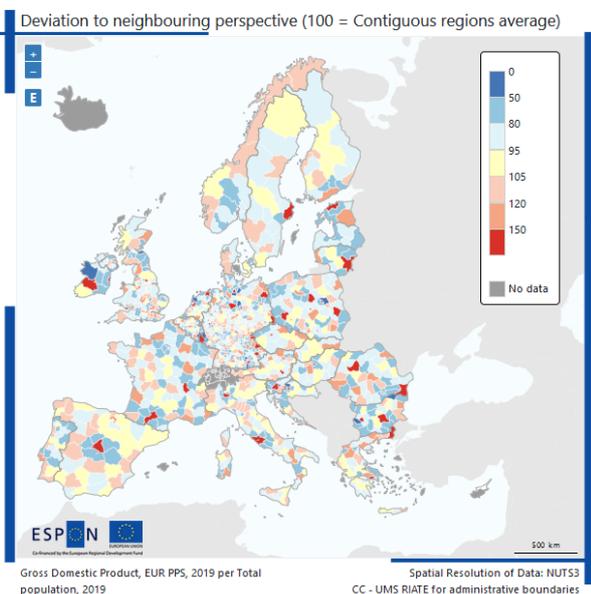
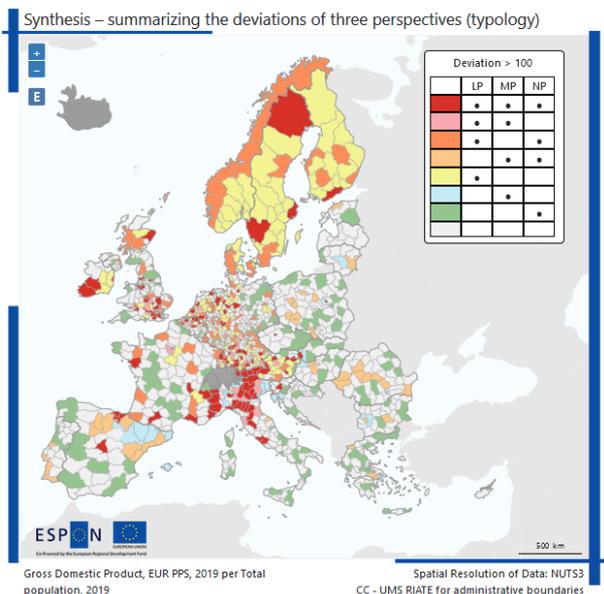


Figure 7: Synthesis map: Regions above average of the respective area average



Step 5: Explore synthesis map and other functionalities

ESPON REGICO generates two different synthesis maps based on the multi-scalar analysis.

The first synthesis map is part of the “standard mode” for all users. It overlaps all three REGIONAL CONTEXT maps generated before and creates a classification highlighting “regions above average” (Figure 7) or “regions below average” respectively.

Further, the tool provides a set of graphs, statistical information as well as additional maps (“advanced mode”).

How can the tool support policy makers and regional planners

There are different possibilities for regional planners and policy makers to make use of the ESPON REGICO tool. Regions can be quickly analysed regarding a number of relative indicators from the share of forested area to unemployment rates to education.

This can prove particularly useful in cases when policy makers have questions such as:

- How does my region perform in a specific context compared to other regions?
- Are there regions leading in a specific context or regions lagging behind?
- Do disparities change when the level of spatial analysis respectively the regional context changes?
- How can I analyse cross-border regions?

Example: Education levels in Europe

How does regions perform as compared to different perspectives (European level and national level)?

Figure 8 shows the distribution of this ratio as compared to the European average. Disparities between and within countries become evident. Strong concentration of educated people in the capital regions is obvious as well as a tendency of North-South divide. Some national disparities are highlighted, e.g. in Spain with more people with tertiary education living in the North than the South. When interpreting this map, one has to bear in mind that the educational levels are very much related to the needs of the respective economies and industries in the regions. In general, well-educated persons tend to migrate to or stay in regions where corresponding jobs are available.

And what about the national perspective? Figure 9 relates the regional figures to the respective country average. Quite clearly, many capital regions are highlighted 20% - 50% above the national average (index between 120 and 150).

For the example of Spain, regional differences within the country become more pronounced, as well as in Italy with a visible north-south divide.

Figure 8: Deviation of persons with tertiary education per total population (25-64 years old) as compared to EU 27+5

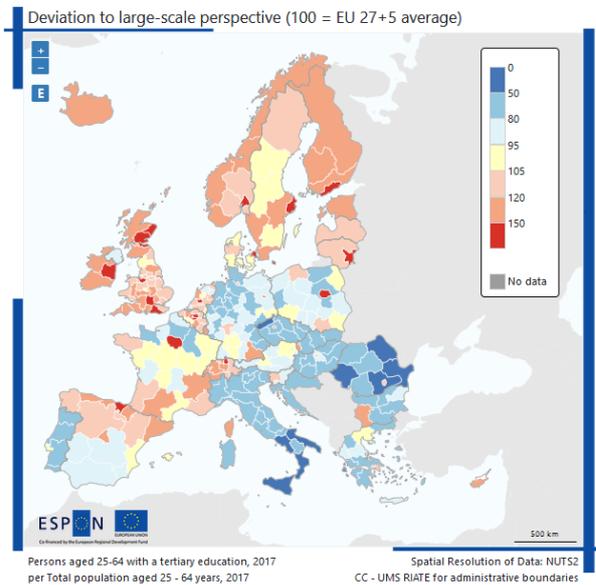
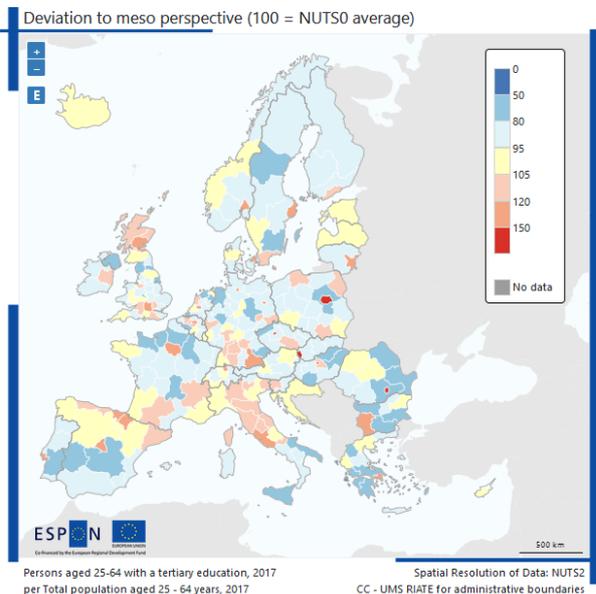


Figure 9: Deviation of persons with tertiary education per total population (25-64 years old) as compared to the respective national average



References

ESPON REGICO
<https://regico.espon.eu>

This guidance sheet has been published within the framework of the ESPON EGTC project:

ESPON HyperAtlas 3.0 project
 ISBN 978-2-919795-74-1

espon.eu

