

Interactive web-based tool for user-driven analysis of Functional Regions in Europe

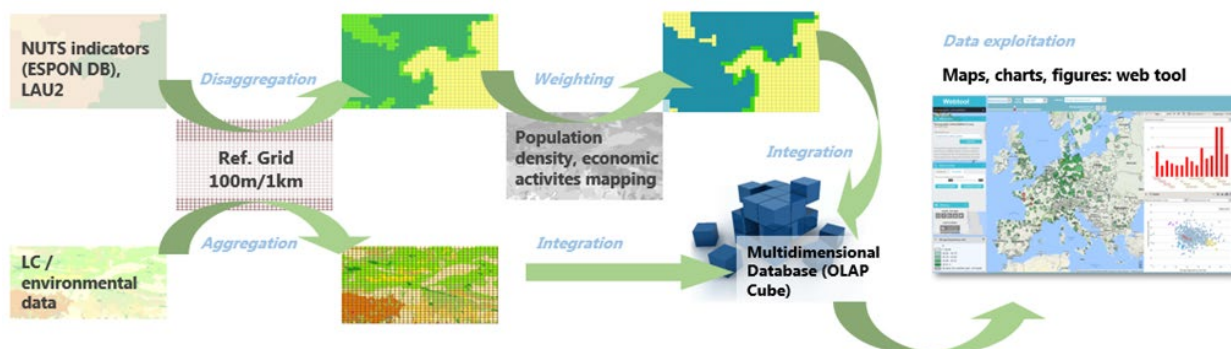
Gisat develops web based platform to support the update of ESPON Online Analytical Processing cube and to deliver practical and communicative web tool integrating the new ESPON OLAP cube functionalities.

The implementation of EU policies such as the Cohesion Policy and the EUROPE 2020 Strategy could be improved and strengthened by a functional approach. In this context, functional areas are an important scale for targeting policy interventions. Likewise, the priorities set in the Territorial Agenda 2020 and the discussions of the place based approach call for a functional approach in policy making and territorial analysis that better reflect the reality and complement approaches related only to administrative boundaries. The Urban Agenda for the EU emphasizes a need for urban authorities to cooperate within their functional areas and with their surrounding regions, connecting and reinforcing territorial and urban policies in order to address growing number of urban challenges.

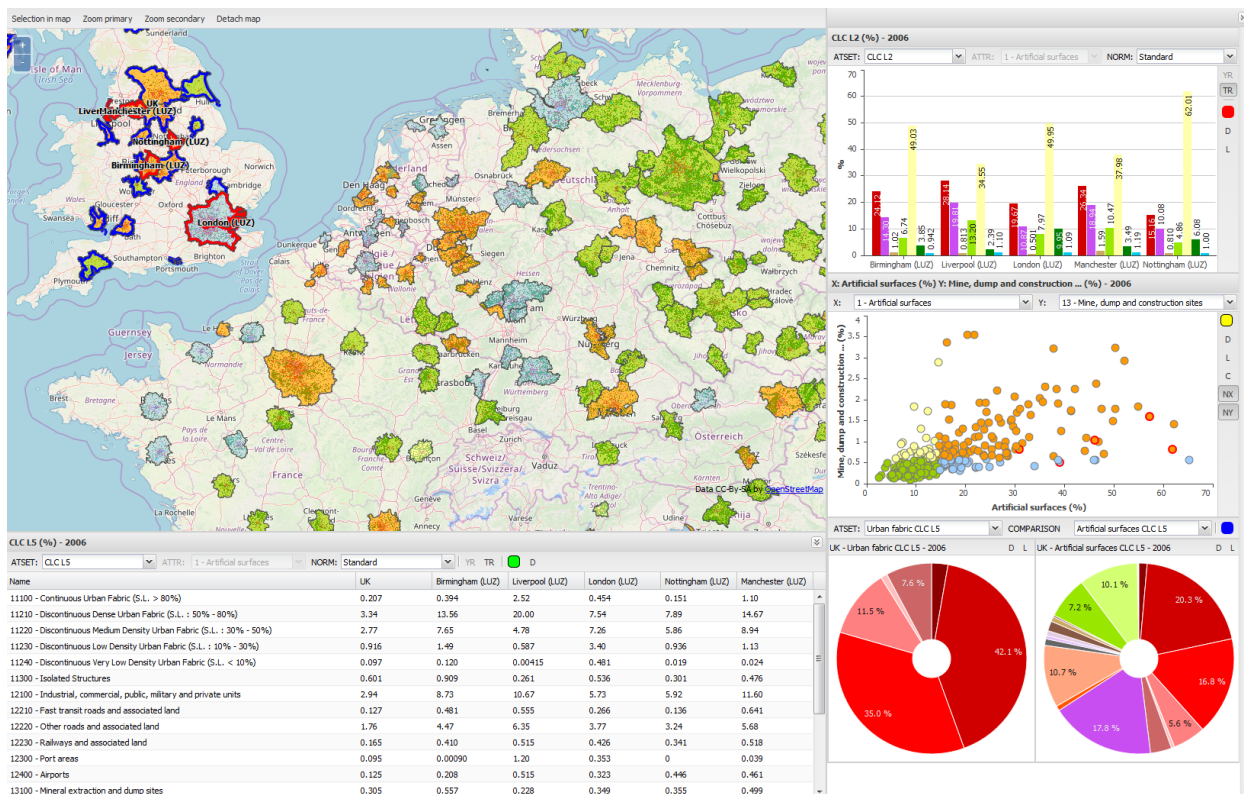
The OECD and the European Commission have jointly developed a methodology to define functional urban areas (FUAs) in a consistent way across countries. Using population density and travel-to-work flows as key information, a FUA consists of a densely inhabited city and of a surrounding area (commuting zone) whose labour market is highly integrated with the city (OECD 2012). The ultimate aim of the OECD-EU approach to functional urban areas is to create a harmonised definition of cities and their areas of influence for international comparisons as well as for policy analysis on topics related to urban development.

The new project “ESPON FUA tool - Functional Urban Areas and Regions in Europe” has been initiated in order to improve the relevance, efficiency and effectiveness of the policy making and implementation process regarding these functional urban areas and other functional regions. The project aims to provide essential data, indicators and analytical tools that can help to better understand the drivers for growth and inclusive social development in these areas across Europe. By now significant data and evidence gaps exist for the functional regions in Europe to be able to understand their contribution to polycentric and balanced territorial development. This project should help to fill these data gaps, complement the work of Eurostat, OECD and DG Joint Research Center in this field. It will support policy debates at various levels, for instance within Urban Agenda for the EU Partnership on Sustainable Use of Land.

There will be two main outcomes of the project – first, an updated version of the ESPON OLAP (Online Analytical Processing) cube and related methodology will be developed, which will allow to disaggregate standard statistical data from NUTS3 level to a lower scale of reference unit – in this case to functional regions – and thus to provide an opportunity to benchmark and analyze data on the current situation and recent trends in functional urban areas and other functional regions in Europe. This disaggregation method exploits the Copernicus land monitoring datasets (Corine LC, Urban Atlas) in order to obtain information about spatial distribution of urbanized land in Europe.



The second main outcome of the project will be a practical and communicative web tool developed by Gisat, presenting the data, indicators and evidence at the level of functional regions, as disaggregated by the above mentioned OLAP cube. The web tool will provide a wide range of visualization and analytical functionalities.



This communicative web tool will be developed as an online analytical platform based on open source components, tailored for interactive, user-driven analysis of geo-based data. The user interface is composed of synchronized interactive maps, charts and tables. It will enable the user (incl. the non-technical one) to visualise and analyse the data and derived information in highly interactive way. This will include possibilities for interactive selection, benchmarking and filtering of analytical units, based on variables or indicators' values or on geographical distribution and territorial definition, as well as advanced exporting functionalities. An integral part of this interface will be an OLAP-like web client, enabling the user to select the type of functional region, indicator and year of interest.

The "ESPON FUA tool - Functional Urban Areas and Regions in Europe" project (<https://www.espon.eu/functional-urban-areas-tool>) is funded by the ESPON Programme. It begun in October 2018 and will run for 1.5 year, until April 2020. The project consortium is led by Universitat Autònoma de Barcelona (ES) and it involves four additional partners: GISAT (CZ), University of Geneva (CH), Randbee Consultants (ES), MCRIT (ES).



GISAT provides wide range of geoinformation services based on Earth Observation technology. It focuses on operational application of satellite mapping to monitor various aspects of our environment and development of dedicated web based platforms for geoinformation analysis and assessment.

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