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TITLE: Mapping Accessibility Indicators for Territorial Cohesion

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ABSTRACT:

Statistics Portugal has been receiving location data on facilities and services to support some statistical activities over the years. However, these data have not been fully integrated into the statistical production process through geocoding processes into the Spatial Data Infrastructure (SDI).

Under the scope of a new statistical product, the Map on Facilities and Social Services of General Interest (CESSIG), Statistics Portugal has been working on integrating point-based data on facilities and services of general interest. CESSIG is a project integrated into the Territorial Cohesion and Social Services of General Interest action supported by the Technical Assistance Operational Programme - POAT-77-2020-02.

CESSIG aims at conveying in one single WebGIS platform information on public and private facilities/services of general interest and accessibility metrics, as the level of access people have to these is one of the central parameters for assessing territorial cohesion. This platform will allow users to navigate point-based data on facilities and services from multiple sectors (e.g., education, health, culture, etc.). The platform also intends to provide variables describing the facilities and indicators on access and demand geographies for facilities/services, particularly service areas, catchment areas and associated metrics to assess territorial asymmetries on access and provision levels. The data workflow supporting CESSIG is structured in three sequential levels: 1) geographical validation, enrichment and

integration in the respective domains of the data infrastructure (geospatial and non-geospatial databases); 2) Alphanumeric validation, enrichment and consolidation of the facilities and services data to support the data integration and indicator calculation; and 3) integration into facilities and services infrastructure, calculation of access and demand geographies (service areas and catchment areas) and accessibility indicators to be disseminated in the CESSIG WebGIS platform.

In a nutshell, the ongoing project CESSIG comes as an operational driver to implement and standardise geocoding practices, organise and enrich data infrastructure and management environment enabling geospatial data consistency. In general, the project enhances geospatial-related activities across the statistical production process to derive geospatial statistics. It also comes as an opportunity to improve non-technical and governance aspects towards in-house capacity building since it involves different units from Statistics Portugal.

In the context of GSGF Europe implementation, CESSIG is a good example by fulfilling some of the Requirements and Recommendations that encompass technical and non-technical aspects related to statistical and geospatial data integration. The demand for modernising the operating environment and the way workflows and interactions are established – both within and outside the organisation – will require organisational changes and awareness-raising concerning geospatial aspects, particularly to statisticians and non-geospatial experts.

KEYWORDS: point-based georeferenced data; accessibility indicators; territorial cohesion; GSGF

REFERENCES

European Forum for Geography and Statistics & Eurostat (2017), A Point-based Foundation for Statistics – Final report from the GEOSTAT 2 project, Eurostat ESSnet grant project.