

## SIOU – HOW TO INTEGRATE STATISTICAL AND GEOSPATIAL DATA USING ADMINISTRATIVE DATA ON CONSTRUCTION WORKS

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### Abstract:

The Indicators System of Urban Operations (SIOU) is based on administrative data from the Portuguese Municipalities, concerning the urban operations related with building permits and completed construction works and its characteristics.

The SIOU includes a set of statistical indicators defined by European statistical regulation (Council Regulation (EC) No. 1165/98 of 19 May 1998 concerning short-term statistics) and disseminated by Statistics Portugal (monthly and quarterly) as the most important to characterize the construction sector in Portugal, in terms of building permits and new construction of buildings and dwellings.

The statistical concepts and definitions in this area were harmonized with the technical concepts and definitions used by the Municipalities, defined in a specific Portuguese Law.

The contents of the data sets to be send (mandatory) to Statistics Portugal by the Municipalities are also defined by a specific Portuguese Law (governmental ordinance), which in 2013 were revised to include information concerning the geo-referenced buildings and dwellings.

The inclusion of this new need concerning geo-referenced buildings and dwellings was decided in order to allow the use of data from SIOU concerning the new constructed buildings and dwellings to update the National Dwellings Register created by Statistics Portugal.

Based on geo-referenced data from the 2011 Population and Housing Census, a Register including all the buildings and dwellings was created, corresponding to the stock at the

Census moment. This Register aims to be used as the population from which the samples for the household surveys will be selected in the future by Statistics Portugal. Thus, there is a need to permanently update this National Dwellings Register with new constructed buildings and dwellings (and also excluding the demolitions), so the SIOU was re-designed in order to allow its use for this purpose, namely by including information concerning the geo-referenced data for every building and specific characteristics to identify in a proper way the correct address of all the new dwellings.

With the specified changes and adaptations, the Indicators System of Urban Operations (SIOU) is a good example about how administrative data on construction works is used to integrate statistical and geospatial data, allowing the availability of data on construction flows (new constructions, building enlargements, alterations, reconstructions and demolitions) to update the National Dwellings Register and also to produce statistical indicators and specific geospatial data on this statistical area.