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**Title:** “The challenges of an annual updated grid population including gender, age, country of birth and nationality and the use of 3D dwellings geometries for increasing quality and accuracy”.

**Abstract**

The dissemination of 2.011 Grid Total Population statistics by Eurostat was a paramount of geospatial statistics. The logical next step for any statistical system that includes a Population Register and a Geostatistical Framework is to publish continuous population grid statistics with the appropriated limitations due to the confidentiality issues.

Nevertheless this task has plenty of difficulties and challenges. From a conceptual point of view, the main issue is the management of the addresses not properly described or not georeferenced, and doing it in an accurate way across years. The combination of deterministic methods, based on auxiliary information and weighted random assignation of spatial coordinates plays a noticeable role in cases with not complete information. From the production process point of view the main difficulty is how to build the proper bridges between an administrative population register, a statistical output and the geospatial tools.

The presentation will show the Spanish experience and pilot results, in comparison with other sources and will explain the challenges of coherence across time.

This exercise highlights the key role of quality and accuracy of address gazetteer and the need of an extended synergy between cadastral and geospatial information. The Spanish Cadastral Agency has also a highly valuable geospatial information of 3D dwellings and buildings, and the Statistical Institute could use it to improve the quality and coverage of addresses framework, enhancing the robustness of links between cadastral and statistical units, and increasing the information available, in order to disseminate it by grids and detailed statistical units.