

# BDIG: Continuous updating for National Geospatial Information Databases in National Geographic Institute of Spain.

Gonzalo Moreno, Francisco Mariño, Alfonso Marín, Pilar Sánchez-Ortiz, F. Javier García and F. Javier G. Matesanz.

*National Geographic Institute of Spain, gmvergara@fomento.es, fmarino@fomento.es, amarin@fomento.es, psanchezortiz@fomento.es, ffgarcia@fomento.es, ffgmatesanz@fomento.es*

**Keywords:** AI, Artificial Intelligence, Business Process Management, BPM, Geospatial Information Database, IGN-ES.

**Abstract:** In order to improve the efficiency in the continuous updating of the spatial objects compiled in the geospatial information databases, National Geographic Institute of Spain launched The Program for the Productive Change GIDB (Geospatial Information Databases) in 2017. Three connected and complementary projects compose it:

- CartoBot, The aim is to obtain the changes from the real world using innovative methods, such as harvesting through web services, Big Data, AI, etc. without forgetting other more classic methodologies.
- InciGeo, Application to manage work orders derived from the detected changes. It is based on Business Process Management.
- GIDB environment. Its main target is the development of working environment that allows executing work orders for the joint update of geospatial databases of different themes, thus ensuring consistency.

Therefore, the programs objective is to minimize the gaps time between changes in real world and the update on geospatial databases, from where the information is made available to the end user in different ways (for example, GIS layers, maps for web services or "hardcopy National Topographic Map editions"). Information updating is done independently of the fact that the change involves one or more themes, since the changes in the territory generally affect spatial objects of several themes at the same time. In addition, this new methodology has another difference compared to the traditional procedure, since instead of updating large geographical areas (provinces, municipalities or sheets in full), act on minimum spatial areas, that is, the area affected by the change and managed as an individual job. These are ICA guidelines for submitting abstracts to supplement ICA guidelines for preparation of papers. All abstracts for abstract-only submission to ICA-event must follow these guidelines and be written using this template. The ICA-event organizers may omit any paper that does not conform to the specified requirements.