

Brief statement of our organization's activities in photogrammetry, remote sensing and geographic information systems

The Instituto Geográfico Nacional (IGN) was created on September 12, 1870, administratively dependent on the Statistical Directorate of the Ministry of Development, but with full freedom to exercise the technical faculties attributed to it. The current structure of the IGN is outlined in Article 17 of Royal Decree 308/2022 ([opens new window](#)) of May 3, which modifies Royal Decree 139/2020 of January 28, establishing the basic organizational structure of ministerial departments, and Royal Decree 645/2020 of July 7, which develops the basic organizational structure of the Ministry of Transport, Mobility, and Urban Agenda, configuring it as a management body attached to the Department's Undersecretariat, and composed of the following organs with the rank of deputy director general:

- The General Secretariat.
- The Deputy Directorate General of Astronomy and Geodesy.
- The Deputy Directorate General of Cartography and Territorial Observation.
- The Deputy Directorate General of Surveillance, Alert, and Geophysical Studies.
- The National Geographic Information Center (CNIG), an autonomous body with the rank of Deputy Directorate General attached to the IGN.

Among its functions, as attributed by Royal Decree, (just 3 of 18 functions) are:

g) The direction and development of national plans for territorial observation with cartographic application, as well as the use of photogrammetry and remote sensing systems, and the production, updating, and exploitation of digital elevation models.

h) The production, updating, and exploitation of the databases of topographic aspects of the Geographic Reference Information considered in Annex I of Law 14/2010, of July 5, on infrastructures and geographic information services in Spain, regarding digital elevation models, transportation networks and infrastructure, hydrographic elements, geographical location and geometric shape of population entities, the description of the land surface through georeferenced images obtained by satellite or airborne sensors, and land use.

i) The programming of the National Cartographic Plan and the production, updating, and exploitation of topographic and cartographic databases of national scope for integration into geographic information systems, and for the creation of the National Topographic Map and other basic and derived cartography. Likewise, the production and updating of the National Atlas of Spain, the provision of technical assistance in cartography to public bodies, as well as the management of cartographic laboratories and workshops.

In particular, since the 1930s, periodic photogrammetry has been carried out throughout the national territory, and since 2004, the National Aerial Orthophotography Plan has been directed and executed, covering the entire national territory every 3 years. This plan was awarded the United Nations Public Service Award in 2013, the most prestigious international recognition for excellence in the public sector. This plan is part of the National Territory Observation Plan (PNOT), which includes remote sensing, photogrammetry, and LiDAR, also led by the National Geographic Institute.

PNOT is a management model based on consensus, coordination, and interadministrative collaboration, on the coproduction of geographic information, and on the co-financing of territorial observation and geographic information production plans. It comprises three major national projects in which numerous bodies and organizations of the General State Administration and all the autonomous communities collaborate. Two of them allow for the periodic complete coverage of the Spanish territory with high, medium, and low-resolution aerospace images, the National Aerial Orthophotography Plan (PNOA, aerial images, and digital terrain models), and the National Remote Sensing Plan (PNT, satellite images). The third national project, which takes advantage of the coverage of the territory obtained by the previous two, is the Land Use Information System in Spain (SIOSE), which defines with precision and homogeneity the urban, agricultural, forest, natural, wetland, and water areas throughout Spain.

To give an example of just two projects, orthophotography and LiDAR, the National Geographic Institute and other public administrations, in the form of partners, invest 12 million euros and 35 million euros respectively every 3 years.

PNOT has been a reference among European institutions since it materialized well in advance the principles of Directive 2007/2/EC of the European Parliament and of the Council, INSPIRE (Infrastructure for Spatial Information in Europe), transposed into Spanish law through Law 14/2010 on Infrastructure and Geographic Information Services in Spain (LISIGE).

In addition, the National Geographic Institute, which serves as the Permanent Secretariat of the Superior Geographic Council, coordinates all levels of administration and all the agents involved in photogrammetry and remote sensing.

Regarding Geographic Information Systems (GIS), it is enough to say that the first GIS in Spain was created by the IGN in the 1970s. Currently, virtually all geographic and cartographic information is produced, managed, and exploited through GIS. From Topographic Maps to geospatial reference data, Geospatial Information Databases or SIOSE, to name just a few minimum examples, nearly 60% of all IGN personnel work with GIS technology.

A list of organization officers and addresses

The National Geographic Institute has 580 officials distributed among four administrative bodies: Geographical Engineers, Technical Surveying Engineers, Cartography Specialists, as well as support staff of other nature.

It is impossible to provide a list of all the officers, so it would be more useful to provide the names of the senior positions within each subdirectorate, as follows:

- The General Secretariat. Ms. Monica Groba (mgroba@mitma.es). Approximately 75 people.
- The Deputy Directorate General of Astronomy and Geodesy. Mr. Jose Antonio López (jalfernandez@mitma.es). Approximately 85 people.
- The Deputy Directorate General of Cartography and Territorial Observation. Mr. Francisco Javier González Matesanz (fjgmatesanz@mitma.es). Approximately 200 people.
- The Deputy Directorate General of Surveillance, Alert, and Geophysical Studies. Ms. Carmen Lopez (clmoreno@mitma.es). Approximately 90 people.
- The National Geographic Information Center (CNIG), an autonomous body with the rank of Deputy Directorate General attached to the IGN. Mr. Emilio Lopez Romero (emilio.lopez@cnig.es). Approximately 95 people.

The remaining personnel, up to the 580, constitute the support staff.

Although the IGN has personnel in various centers, all the subdirectors have their offices at the central facilities in Madrid (Address: Calle General Ibáñez Ibero 3, Madrid, Spain).

In any case, the personnel dedicated to Photogrammetry, Remote Sensing, and Geographic Information Systems as active specialists, including other levels of administration (autonomous communities or other ministries), can be estimated to be between 100-130 people

Madrid, as of the digital signature date

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