

LAND PLANNING





As an indispensable tool for understanding and controlling territories, maps have been diversified to a great extent in the form of geographic databases, either vector or raster. A country's mapping work is increasingly embedded in a spatial data infrastructure (SDI) approach, which in turn can be embedded in an even more global approach such as a national geomatic plan (NGP). The challenge at a national level is therefore to extend this reference geographic database using information from other public organisations – which can include controlled data from participatory mapping projects – in order to create comprehensive, consistent and coherent thematic databases from which numerous business applications can be developed as well as various cartographic products.

IGN FI provides support to its clients throughout all the phases of their SDI and mapping projects: assessing the currently available data, technical aspects (from the initial collection of data to updates) and organisational issues (transfer of technology, coordination, etc.).

OUR AREAS OF EXPERTISE

Advise, design, execute and support throughout all the stages of mapping projects:

- Implementation of SDI and NGP
- Creation of a national geodetic reference via a materialised network
- Aerial photographs, LiDAR acquisition, satellite image acquisition
- Creation of digital terrain models, digital elevation models, orthophotographs
- 3D stereoscopic plotting, 2D digitising on orthoimages
- Modelling and implementation of geographic databases, definition of the metadata as per international standards
- Design and production of web-based portals for disseminating geographic data
- Geometric and semantic quality controls of databases
- Topographic reference mapping to national standards
- Specific thematic mapping
- Theoretical and practical training
- Implementation of mapping production lines with technology transfer

OUR MEANS

IGN FI provides specialist teams to its clients:

- Experts to create geographic databases: specialists in geodesy, photogrammetry, spatial imagery, surveying, GIS, cartography, quality...
- Experts in the creation of map portals: systems engineers, analysts, developers, experts in European standards (INSPIRE)
- Sector experts to create thematic maps
- Experienced project directors and managers

IGN FI also makes tried and tested dedicated software available to its clients, including GeoView®, mapping data production tool from IGN France which integrates functions for image processing, photogrammetry and vector data digitisations.

Depending on the client's needs, proprietary or open source solutions will be selected and implemented.

SOME OF OUR REFERENCES

BENIN · Creation of a national digital map

Modernisation of baseline mapping and creation of national maps to scales of 1:50,000 and 1:200,000. Thanks to the production of orthophotos at a resolution of 50 cm, a DTM accurate to one meter and a topographic database, the project provided the country with a detailed and consistent three-dimensional description of its entire land area. All the work was carried out locally by Beninese staff, and together with specific training sessions for users, this ensured the effective transfer of skills to the entire geomatics community.

IGN FI has also led similar projects to update national maps and build on the capacities of the Geographic Institutes in Senegal and Burkina Faso.



Constitution of a national vector database covering the entire national territory at different scales and on a rich set of themes (urban, road, hydrology, land use, infrastructure and networks, toponymy, orography...). This database allows for a multi-theme spatial analysis of the territory, an essential support for the development and in-depth analysis of data for public and private users, from the large urban scale to the small national scale (administration and development in the areas of urban planning, health, education, security, logistics, agriculture and forests, etc.).

IVORY COAST · Establishment of a single reference standard for adresses

The purpose of the Address System Project of streets and public places in the Abidjan District (PADA) is to implement a complete address system and a single reference standard for addresses, ensuring that occupancy units (OU) on the Abidjan District streets network are geographically situated and referenced.

CHAD · Spatial data infrastructure

The project's objective was to provide Chad with a multi-use spatial data infrastructure (SDI) for the city of N'Djamena and its surroundings. IGN FI, in partnership with a Chadian design office, was therefore called on to implement this large-scale project that covered data acquisition and map production as well as the task of showing the main institutional actors in Chad the value of data produced. The project was headed up in close collaboration with local development actors associated with each phase.

SAUDI ARABIA · Quality assurance for a mapping production line

Within the framework of the production of approximately 12,000 topographical maps at a scale of 1:25,000, covering the entire Kingdom of Saudi Arabia (about 2 million square kilometers), the General Commission for Survey awarded IGN FI a contract to provide technical support in setting up the process of quality control and assurance for the various products created by this cartographic production line.

SENEGAL · Urban cartographic database

This project to create an urban cartographic database enabled relevant information to be provided for sustainable urban planning in seven cities considered to be priority areas. It was carried out entirely locally and involved a high level of skills transfer.

SERBIA · Technical assistance for the creation of a national spatial data infrastructure

A partnership between the Serbian Geodetic Institute (RGZ) and the Airbus Defence and Space /IGN FI consortium enabled the Serbian center for spatial data infrastructure to enter into its operational phase. The introduction of high-technology components along with the creation of data production workshops and a unique transfer of know-how and experiences enabled the production, updating, organisation and dissemination of geographic data to be carried out, notably by setting up a geographic portal.

More projects on www.ignfi.com













IGN FI is one of the companies in the GEOFIT GROUP and as international technical operator for IGN France, is a major player in the field of geomatics. It provides expertise in the fields of geodesy, metrology, cartography / infrastructure for national geographic data, databases, geographic information systems and portals.

100% devoted to export, IGN FI provides its know-how to many sectors of activity including agriculture, forests, the environment, civil security and borders.

