



# Cadastr

Experience, commitment and technical accuracy  
serving Public Administrations



GrupoTragsa

Partners in excellence





Tragsatec is a leading consultant in geographic information systems and in development of data mining and management tools for the Administration and other users.

leading  
CONSULTANT

GEOGRAPHIC  
INFORMATION SYSTEMS

development of  
DATA MINING  
and management TOOLS

## Our main values

Our defining principles in cadastre matters:

- | We are a multidisciplinary team of people qualified in cadastre information management and agricultural computer software. The team has proven experience in large scale projects, in the coordination of teams and the promotion of synergies between different government bodies.
- | We guarantee the safe and efficient implementation of complex projects in any part of the world and we bring innovative and proven solutions.

- | We ensure the highest levels of quality in all our projects. All actions are carried out in compliance with UNE-EN ISO 9001 and UNE-EN ISO 14001 standards, in the framework of our Integrated Quality and Environmental Management System.

- | We are committed to being worthy of the Administration's trust, fulfilling its expectations to the highest levels of efficiency and confidentiality.





## Products and services

### Creation and maintenance of Geographic Information Systems

1. Collection and digitalisation of cadastre information.
2. Adjustment of vector maps using raster images.
3. Geographic information management.

#### Key projects

| **Land Parcel Identification System (SIGPAC in Spain):** compiling graphic and alphanumeric data from the Cadastre for the whole of Spain, digitalising paper documents and overlaying them on the orthophotos using area and parcel adjustment.

| **ARGOS**, client editing program with the following characteristics for cadastral use:

- | It accepts most vector and raster graphics, and all reference systems, with real-time forecasts.
- | It maintains topology, without gaps or overlaps in the layers.
- | It allows editing rules to be customised, defining themes easily and viewing several synchronised windows for different dates.

## Updating the Cadastre

1. Analysis of cadastral information.
2. Land data collection through mobile devices.
3. Map updating and cleaning.

### Key projects

#### **| Converging and Maintaining SIGPAC with Cadastre data:**

updating the Cadastre parcels layer throughout the country using SIGPAC (the Spanish Land Parcel Identification System) as the basis map. Incorporating the Cadastre parcels layer into SIGPAC and maintaining it by including Cadastre updates.

**| Incorporating new infrastructures, administrative boundaries and land consolidations from the Cadastre:** updating the Cadastre parcels and sub-parcels, and updating and cleaning the alphanumeric database.

**| Incorporating urban and rural real estate with buildings into the Real Estate Cadastre,** as well as any updates of their characteristics in the event of a failure to declare the specific circumstances of a Cadastre entry or modification, in the framework of the Cadastral Regularisation Procedure 2013-2016.

**| Assigning environmental characteristics ('mainly wooded area', 'closed canopy' and 'main species')** to the sub-parcels of the Spanish rural cadastre based on data from the Spanish Forest Map, the Spanish Inventory of Natural Protected Areas and the graphic databases of the Natura 2000 Network.





## Interlinking the Land Registry and the Cadastre

1. GIS tool for linking the Land Registry to the Cadastre with other graphic information that serves to describe and manage the Registers.

### Key projects

| **Graphic Database System of the Land Registry (GEOBASE):** web editor for the register system that allows information to be shared between a large number of users with full control of security.

## We are experts

- | Flexible design of geographic information systems and development of software tools for use therewith.
- | Critical analysis of large amounts of information from different sources.
- | Technical accuracy: work process document management.
- | Control over production: tools for managing and monitoring work.
- | Technological transfer: technical training of local staff.
- | Data traceability: register of actions and security at the accesses.
- | Commitment to confidentiality: handling sensitive data.
- | Field data collection using mobile devices with GPS.







## R&D&I

Technological platform of Geographic Information Systems INTERGIS. The platform has the essential elements in the field of GIS in order to satisfy different clients' needs. Specifically, it is made up of the following elements:

- | **InterGIS Web.** A web-based tool that allows maps to be viewed and edited, based on modular architecture standards, to enable reuse and adaptation to different project typologies.
- | **App IntergisMap.** Map editing mobile application for Smartphones/Android tablets that allows different elements to be edited.
- | **Spatial Data Infrastructure (IDE).** Geoportal created in accordance with the INSPIRE Directive specifications that is based on three elements: Map Viewer, Metadata Service, Gazetteer Service.

## Our references

Tragsatec was pioneer in applying new technologies to the agricultural sector. In 1990 we created the first digital layers superimposed over aerial images for the Spanish Olive Tree GIS. Since then it has actively taken part in technical development projects for digital orthophotography throughout the European Union.

Noteworthy references:

### | SIGPAC Viewer:

<http://sigpac.magrama.es/feaga/h5visor/> <http://sigpac.mapa.es/feaga/visor/>

SIGPAC is the main tool of the Ministry of Agriculture, Food and the Environment (MAGRAMA) for managing agricultural aids related to the land. It is an information system that stores vector, raster and alphanumeric data, created by Tragsatec for the Spanish Agricultural Guarantee Fund (FEGA). The SIGPAC viewer provides free access to almost all layers and allows reports and graphics to be generated of the

cultivation parcels. The application connects via the Internet to:

- | MAGRAMA SIGPAC Data Servers that provide vector graphic information (parcels, reference parcels...) and related alphanumeric data (uses, surface area...)
- | The MAGRAMA Image Server that provides raster images, maps from the National Geographic Institute and orthophotographs of recent flights carried out for SIGPAC.

Tragsatec is entrusted with the maintenance and updating of the SIGPAC viewer.

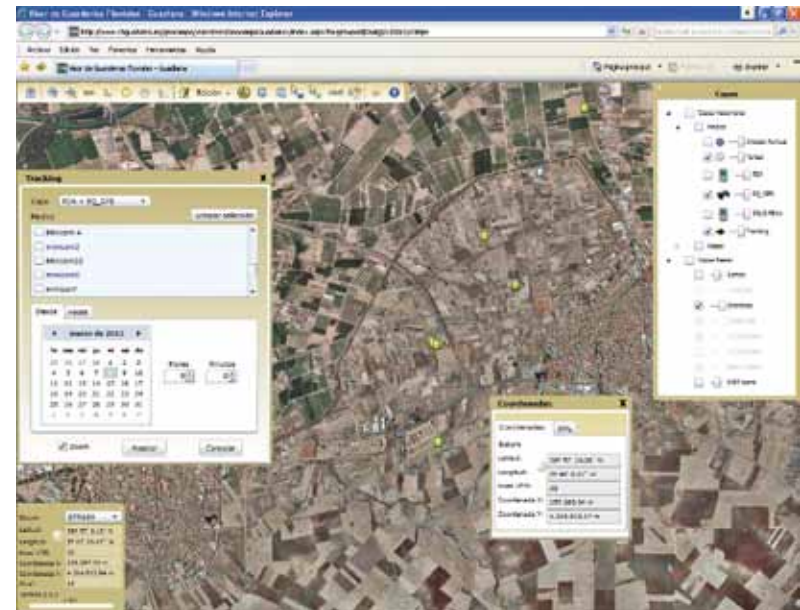
### | IGN Viewer:

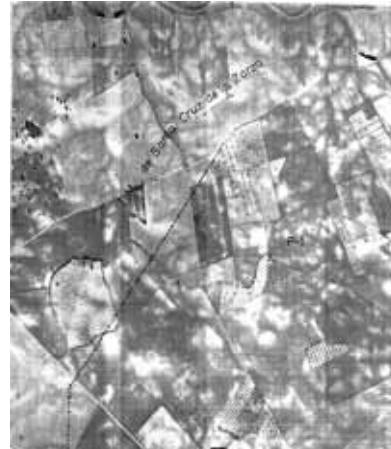
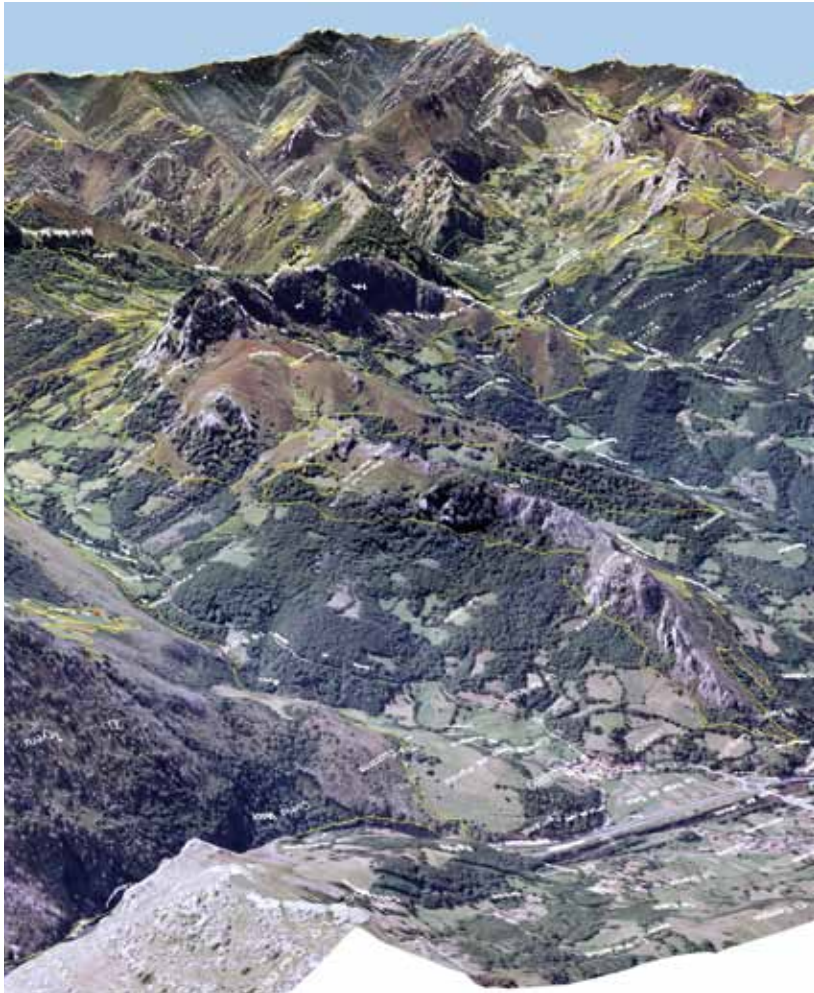
<http://www2.ign.es/iberpix/visoriberpix/visorign.html>

IBERPIX is the web-based server for geospatial, raster and vector data of the National Geographic Institute, which is an agency under the Spanish Ministry of Public Works. It allows national topographic maps to be consulted and viewed to scale

1/1,000,000, 1/200,000, 1:50,000 and 1/25,000; land occupation maps (Corine and SIOSE), DTM (1:200,000 and 1:25,000) and Landsat 7, SPOT 5 and PNOA images.

Tragsatec is entrusted with maintaining the viewer, developing new versions, updating the data it reads, generating tiles of its layers, monitoring its performance and web accesses.





## Grupo Tragsa

Head office  
C/ Maldonado, 58  
28006 Madrid

[www.tragsa.es](http://www.tragsa.es)

