



## WHO IS SM GEODIM?

### Company Profile

SM GEODIM is a Spanish private company (SME) of RTD and innovation, specialized in the development of operational Remote Sensing and GIS (Geographical Information System) applications.

Founded in 1994, under the original denomination of SM Consultores, the company has developed its activity as second mark of Geosys SL.

In 2013, as part of the internalization plan of its activities, the company name was changed to current one, SM GEODIM.

Company's background and know-how is backed by more than 25 years of experience of its founder and current CEO Dr. Salomón Montesinos, together with a highly specialized and multidisciplinary technical team.

A broad network of partners and contacts throughout by Europe complements our capacities. Among the Spanish stand out: Civil Engineer of University of Castilla-La Mancha, Research Institute of Agricultural and Food Development of Murcia Region (IMIDA) and GeoSpatiumLab (a spin-off of the University of Zaragoza).

In 2009, we organized the XIII Congress of the Spanish Remote Sensing Association in Calatayud (Zaragoza), under the slogan: "Water & Sustainable Development".  
[www.congreso2009aet.es](http://www.congreso2009aet.es)

SM GEODIM is founding member of FADOT (Foundation for Development of Earth Observation of Aragon), which is a non-profit organization established in 2010 together with the Government of Aragon, to promote the development of research, use and awareness of Earth Observation Techniques and data.

### Experience

Over these years, we have developed a good number of *operational applications* of Remote Sensing, among which are remarkable:

#### Quantification of irrigated surfaces

The estimation of agricultural water demand is one of the most important data for water planning and management of a territory. Quantification of *really irrigated* surfaces will allow us:

- *Measurement and evaluation of Groundwater withdrawals.*
- *Control of exploitation regime of overexploited aquifers.*
- *Monitoring and evolution of agricultural water demand from the entry into force of the Water Law.*

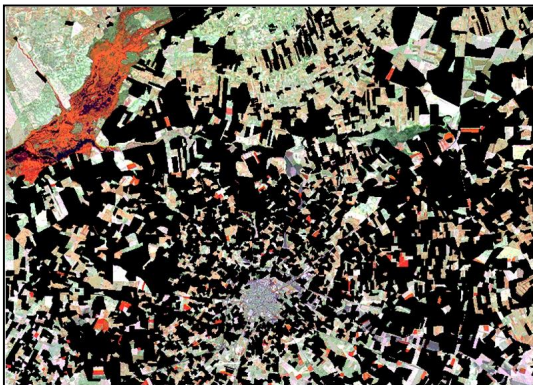


Evolution of irrigated area of the Jucar gorge between 1985 (up) and 2009 (down).

### Detection of illegal irrigations

The second higher pressure existing on the EU ecological status derives from excessive water collection.

The assignment of an excessive amount of water to users, by an overestimation of resources or to economical and political pressures, must be distinguished from the water collection, which is illegal when it's carried out without license or violating the terms of a license.



Integration of satellite images and Alberca enclosures. In red, plots that draw water without administrative concession in the Las Tablas de Daimiel area.

### Cartography of flooded areas

Earth Observation techniques can help in the different stages of flood management, from prevention to return to normal situation. Among the information that can be generated, stand out: the *maps of land use, of vulnerability, of evolution of the flood, of soils moisture and Digital Elevation Models.*

### Remote Sensing as evidence in court

Satellite images are an effective and objective way of evidence, both in administrative and judicial proceedings.

However, it's necessary to count on sufficient experience and an adequate training to present legal evidences in the Court.

SM GEODIM has extensive experiences providing help in this matter to public organizations as well as private entities.

### Precision Farming

Satellite images can be used to segment cultivated plots into homogeneous areas. It is proved that this segmentation is *very useful to maximize the production of quality crops.*

### System of Environmental - Economic Accounting for Water (SEEA)

During 2012, SM GEODIM has received funding from EU for SEEA implementation.

[www.quaseeaw.eu](http://www.quaseeaw.eu)

SEEA provides a conceptual framework to organize the economic and environmental information to realize consistent analysis about the contribution of water to the economy and to determine the impact of economy on the environment, especially on water resources.

### Monitoring of civil works



Monitoring of construction works of a regasification facility.

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