











### Introduction

The Tragsa Group consists of a cluster of stateowned companies that forms part of the Sociedad Estatal de Participaciones Industriales (SEPI – the State Society of Industrial Participations). The Tragsa Group's track record spans more than thirty years and it is currently an integral service provider and benchmark in the execution of projects for government departments.

The Tragsa Group has undertaken over 200,000 projects, both national and international, in different areas of activity, differentiating the group from other companies and highlighting its capacity to adapt and respond quickly and effectively. These strengths complement the Group's expertise in R&D&i, leading to state of the art technological solutions and the highest quality services.

The Tragsa Group is made up of Tragsa, the company in charge of carrying out works and services, and Tragsatec, the company that undertakes engineering and consultancy work, providing technical assistance within all the Group's areas of activity. These two companies

enable the Group to carry out all stages of any project, from the idea and design phase right through to its execution.

The Tragsa Group companies are state-owned resources and technical service providers to central and regional governments and their agencies, who assign the Group obligatory projects to be executed.

Tragsatec was set up in 1989 and today provides qualified consultancy services, developing and implementing advanced technological solutions. Over the last four years, the company has worked on over 2000 projects. The great majority of these projects have involved cuttingedge ITC tools, such as Geographic Information Systems (GIS), the production of web platforms and applications for creating and managing databases and telematic systems, etc, always delivering customers with highly versatile and innovative solutions. Tragsatec operates in the 52 provinces that make up Spain's 17 regions, employing over 4,500 people. The company's specialised human capital and extensive network of offices enable the Group to respond quickly and effectively to any government requirements.

The company's international track record includes more than 120 Spanish cooperation projects in over 35 countries in North Africa, Sub-Saharan Africa, Latin America and the Caribbean, Asia, Europe and the Middle East. These projects have had a direct impact on all the geographical areas, contributing to local development by training, empowering and advising users and organising seminars and meetings to transfer technological knowledge to users.

Tragsatec provides a wide and varied range of services in the environmental, infrastructures, building and architecture, water, health, fishing, engineering, consultancy and technical assistance fields.



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# Environment



Continued and growing pressure on our ecosystems is forcing us to develop ways of guaranteeing **sustainable use of biological diversity**, ensuring that future generations inherit an environment in optimum conditions.

### Environmental conservation and biodiversity

### Inventory and monitoring of protected and/or endangered species.

Specialised technical studies on the conservation status and distribution of animal and plant populations.

Analysis and implementation of benchmarks.

Fieldwork for monitoring purposes and initial population studies.

Updating of official catalogues and preparation of specific reference documents and reports.

Activities to encourage the reproduction and strengthening of populations, the reintroduction and selective capturing or monitoring of species using cutting-edge technology.

Preparation of informative, formative, technical and reference materials.



### Monitoring and controlling invasive alien species (IAS).

Development and implementation of the measures needed to prevent the introduction of IAS and to control and eradicate them.

Preparation of management, control and, where necessary, eradication strategies with regards invasive alien species.

Observation and monitoring using participatory systems to detect the entry and subsequent spread of species and provide early warnings.

State of the art information and communication technologies (ICTs).

### Mapping, monitoring and conserving habitats.

Land mapping, creation of habitat conservation status protocols and benchmarks and development of monitoring systems.

Design and implementation of measures to correct, maintain and improve.



### Environmental management and conservation

### Managing and monitoring the Natura 2000 Network.

Provision of technical support and advice to the relevant government departments on duties arising from the Habitats and Birds Directives.

Management of official Natura 2000 Network information (database and digital maps) and compliance with European requirements, creation of management tools (management plans and master plans) for Natura 2000 areas, characterisation and benchmark systems for the Natura Network and habitats of EU interest.

Training and information activities regarding the Network.

#### Land planning and management.

Preparation of natural resource planning documents (Spanish acronym: PORN), use and management master plans (Spanish acronym: PRUG), forest planning and industry documents (public use, monitoring, accessibility, etc.). These tools assist in the planning of natural resources and specify land use and activities with particular relevance for protected natural areas in order to promote socioeconomic development in harmony with the preservation of natural values and biodiversity.







### Monitoring natural area networks (national and international).

Design, implementation and upkeep of systems to monitor and assess national and international natural area networks on different levels (national, regional and local) and within different spheres (ecological, sociological and administrative). These systems provide information on the development of different land parameters, generating useful information and products for management and research.

#### Environmental restoration.

Development of specific projects to improve, recover and restore ecosystems that have lost all or some of their functionality or a significant part of their environmental values.

Maximisation of space for public use and environmental education.

### Conservation and improvement of marine and fishing areas

Scientifically coordinating, protecting and maintaining protected **fishing** areas in marine reserves, marine development areas and marine repopulation areas that are owned and managed by central, regional, mixed and even international governments.

Specific studies to pinpoint the location of future marine reserves of fishing interest and marine development areas (artificial reefs).

Socioeconomic studies of the industries affected by the creation of marine reserves.

Managing the Natura 2000 Network in the marine environment and protected marine areas.

Development and consolidation of sites included in the Natura 2000 Network in Spain.

Participation in the naming of Natura 2000 sites and approval of their management tools.

Creation and development of the Protected Marine Area Network.









#### Inventories, catalogues, censuses and guides on habitats and marine species.

Collecting existing biological and physical study data, mapping and databases.

Characterization of the seabed.

Prospection; seabed mapping and bathymetry, filming, geophysical studies, biological measuring and taking of samples.



### Planning, managing and monitoring the marine environment.

Preparation of planning and conservation plans for marine areas.

Design of strategies for the conservation and recovery of marine species and the conservation of marine biodiversity.

Programmes and directives for the conservation of genetic resources, flora, fauna, habitats, archaeology, ecosystems and marine areas.

### Protecting the marine environment.

Monitoring international agreements for the conservation of marine biodiversity and strategies and measures to protect the marine environment within the integrated maritime policy framework.

Reports and support for organising international meetings.

Management and monitoring of cooperation work with third countries.

### Preventing and fighting marine pollution

Studies, proposals and plans to protect the coast and prevent accidental marine pollution.

Initial reports for procedures to assess environmental impact on marine areas.

### Observing continental and marine aquaculture installations from an environmental point of view.

Analysis of activity and its environmental implications.

Taking of samples and interpretation of results to draw up proposals and recommendations to minimize potential environmental changes.



# Contingency plans for accidental marine pollution (Spanish acronym: PICCMA).

Aimed at ports where fuel is loaded and unloaded.

Analysis of the measures used to fight accidental marine pollution and execution of contingency plans within the maritime and port sphere.

### Plans for receiving and handling waste generated by ships in ports.

Specifically ports where all kinds of goods are loaded and unloaded, and an analysis of the tools used to implement the PICCMA (contingency plans for accidental marine pollution) within the marine and port environment.

### **Environmental quality and assessment**

Using plans, Tragsatec provides sustainable development solutions with a global focus that include the conservation and recovery of environmental quality, incorporating the environment variable into tasks. Part of this work is to encourage society to take part in working towards this objective through communication and environmental education activities.

**Environmental planning,** including strategy, national plans and land planning on a local level. Maximum specialization in planning and managing natural areas.

Natural resource (PORN) and forest resource (PORF) planning documents as well as the management of public use plans.

Planning, management, monitoring and support of natural area networks, particularly the national parks network in Spain.



#### Comprehensive environmental assessment.

Technical support for environmental bodies and promoters with assessment procedures, providing help with preparing and processing the documents required at all levels and stages.

Strategic environmental assessment of plans and programmes, projects and activities, and monitoring the execution and operation stages from an environmental standpoint.

### Implementing environmental management and quality systems.

Consultancy, audit and training services in relation to ISO standard 14001 on quality and the EMAS (Eco-Management and Audit Scheme) regulations on environmental management.

#### Environmental noise.

Analysis and processing of data regarding strategic noise mapping and action plans.

Noise studies within fields such as industry, transport, built-up areas, etc.



GUÍA para la Gestión Sanitaria en Acuicultura





#### HUELLA DE CARBONO DEL MINISTERIO DE AGRICULTURA, ALIMENTACIÓN Y MEDIO AMBIENTE AÑOS 2010 Y 2011





#### Climate change.

Working with government on a legal, economic, technological, strategic and social level etc., to deal with climate change mitigation via emissions inventories, drainage calculations and the reduction of emissions and also in terms of adaptation, impact and vulnerabilities.

### Environmental toxicology and pollution.

Development of pollution information management tools.

Environmental risk assessment in terms of phytosanitary products and biocidal substances.

Helping companies apply the standards specified in EU regulations regarding toxicity.

# Environmental restoration and landscaping.

Projects to restore, recover and integrate the landscape into rundown areas.

Design of green areas and public spaces.



#### Soil contamination and waste management

Tragsatec works with producers and waste disposal managers to align their activities with contaminated soil and waste regulations as well as on preventive measures, the use of resources, reducing the negative impact of their production activities and human health and environmental management.

### Technical help with waste authorisation administrative procedures.

Technical help with administrative procedures (obtaining authorisations from the different government departments).

# Traceability of and inspecting industrial waste.

Technical help with inspecting and controlling traceability in the waste cycle (generation, transportation, storage and recycling).

Technical and legal help with identifying offences and support with initiating sanctioning procedures.

Data processing and management of waste management information systems.

Training on and awareness of current legislation.

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# Managing waste taken to waste disposal sites.

New site characterization and execution studies as well as studies on final covering and closure of sites, degassing, energy use and other requirements arising from IPPC legislation (Integrated pollution prevention and control).

Waste disposal site management audits, postclosure surveillance, assessment and evaluation of impact arising from illegal waste disposal sites.





#### Regenerating contaminated soil.

Diagnostics studies and design of technological solutions for regenerating affected aquifers and soil.

Monitoring diffuse contamination resulting from the use of nutrients and pesticides or vulnerable areas using mapping and monitoring networks.

Determine the contamination source using isotope analysis.

Managing waste resulting from the prospection, extraction, treatment and storage of mineral resources.

Preparing waste management studies.

Technical help to monitor the management of prospection and extraction activity and the treatment and storage of mineral resources.













#### Water-forest balance

Restoring water and forest conditions and fighting erosion.

Restoration of forest floor and correction of riverbeds.

Agro-hydraulic planning of basins.

Flood control and sedimentation in reservoirs.

Stabilization and correction of hillsides and slopes.

Protection and improvement of riverbeds and banks.

Development of erosion and desertification planning tools.

#### Forestry

Silvicultural treatments for disease and forest pests.

Restoration of forest floor and correction of riverbeds.

Agro-hydraulic planning of basins.

Flood control and sedimentation in reservoirs.

Stabilization and correction of hillsides and slopes.

Protection and improvement of riverbeds and banks.

Development of erosion and desertification planning tools.

#### **Fire prevention**

### Protecting forests from fire.

Planning and analysis of forest fire prevention activities on different levels using a land studies, risk zoning, specification of an urban and forest interface and fire scenarios.

Preparation of fire impact reports.

- Specific mapping and technical description of fire prevention actions.
- Introduction of new technologies.
- Control and monitoring of forestry work undertaken on road infrastructures (roads, country roads, paths).



#### **Environmental information**

Environmental communication and education.

Preparation of publications, audiovisual materials and interactive multi-media products.

Management and development of meetings, conferences, seminars and educational activities and the organisation and design of museum-based and interactive exhibitions.

Visitor and interpretation centre projects.

Planning and supporting environmental volunteers.





# Environmental awareness, quality and fragility.

Development of environmental information tools that include inventories, mapping and data systems used in biodiversity and geodiversity studies.

Environmental, cultural and landscape resource management.

Environmental economy, sociology and quality management.

Study of land planning and protection schemes and also environmental benchmarks, risks and impact.







The National Forest Inventory (IFN) is a project run by the Ministry for Agriculture, Food and the Environment (Spanish acronym: MAGRAMA) and contributes to the statistical information on Spanish forests. This is the first tool to assist with planning and it also forms the basis for adopting appropriate regional, State and European Union sustainable forest management policies.

It is a State-run project covering the entire Spanish territory, but the work will be undertaken on a provincial level every ten years (except in the Cantabrian mountain provinces, where this work will be carried out every five years).

Tragsatec has been involved with this project since 1986, when the second cycle began, and since then it has played a key role in all stages of the Second National Forest Inventory (IFN2, 1986-1996), the Third National Forest Inventory (IFN3, 1997-2007) and the Fourth National Forest Inventory (IFN4). The fieldwork stage of this fourth inventory began half way through 2008 and has already been completed in nine autonomous regions.

a key tool for managing and preserving our forests

As it is an ongoing inventory, the work aims to generate as much information as possible on Spanish wooded areas and must always be carried out in previously defined plots, checking the land tenure or level of protection, production capacity, biodiversity conditions and potential developments or threats. This also enables immediate action to be taken if necessary.

Spanish forests are now healthy. There has been a considerable increase in wooded areas, with a tree biomass totalling 683 million m<sup>3</sup> and annual growth exceeding 30 million m<sup>3</sup>.





**Experience:** 24 years

Key data

**Employee:** 476 <sup>1</sup>

**Activities:** 205

Scope of activity: National and international

**R&D&i:** 4 projects

**% of activity:** 13%

<sup>1</sup> Average number of jobs within the line of activity in 2013.



# Infrastructures

Tragsatec undertakes architectural and engineering projects and works within strict quality, sustainability and environmental parameters.

### **Civil engineering**

### Drawing up works designs.

Design of new projects and improvements to road infrastructures for communications and leisure purposes (roads, country roads, pathways) through initial studies, specification of delineations and geometrics, overchutes and drainage. Work on signs, affected services, expropriations, measures to correct environmental impact and the management of construction and demolition waste.

Specification of other required infrastructures, such as overpasses or underpasses for vehicles, people, livestock or wild fauna, including bridges, foot-bridges, cut and covers, caissons or frames and work on drainage systems, bank and slope protection and earth retention.

### Structural engineering.

Design and calculation of structures for building, the farming industry and civil works.

Observatories and surveillance towers, with particular emphasis on our experience with wooden constructions.



# Structural restoration and pathology studies.

Initial studies including visual inspections, the detection of evidence of structural pathologies and their prior assessment.

Detailed inspections and assessments using historical studies, control measurements, prospections and material tests.

Analysis of repair and design options and the calculation of restoration and strengthening systems.

### Technical assistance during works.

Design analysis and options and feasibility studies.

Solutions design and preparation of technical documents.

Analysis of problems arising during execution of works, such as setting out, topography and geotechnical differences or design mistakes.





Footbridge over the River Gállego

Since 1993, the Nature Trails Programme has built a total of 8,500 kilometers of paths and more than once Tragsa Group technicians have been asked to help develop highly complex road infrastructures, which have been carefully adapted to unique and difficult surroundings, such as the section of the River Gállego that passes through Murillos de Gállego (Huesca).

The section of the Hoya de Huesca nature trail where this building work took place begins in the municipality of Agüero, crossing through Murillo de Gállego and Las Peñas de Riglos, on through the Loarre, Caballera, Gratal and Salto de Roldán mountain ranges, ending up in the Guara mountains. A large part of this trail runs close to the River Gallego, one of the River Ebro's main tributaries, which snakes between gorges and ravines.

To take this nature trail across the river in Murillo de Gállego, a 104 metre long footbridge was built using abutments, with two equal spans and a central pier measuring 10.6 metres high. The walkway itself was made of planks measuring 2.50 metres wide and 6 centimeters thick.

These activities, implemented by the Ministry for Agriculture, Food and the Environment through the Directorate General for the Sustainable Development of Rural Areas, help diversify the economic activity of the regions involved, boosting their eco-tourism activity and preserving natural areas through environmental education. By giving new life to old infrastructures, the area's historical legacy is preserved and passed on, cultural heritage is enhanced and local traditions supported.







**Experience:** 24 years

Key data

**Employees:** 70<sup>2</sup>

Activities: 82

Scope of activity: National and international

**R&D&i:** 2 projects

**% of activity:** 2%

<sup>2</sup> Average number of jobs within the line of activity in 2013.



# Building & Architecture



Tragsatec undertakes and manages building projects under strict quality, sustainability and financial parameters.

#### Architecture, building & town planning

#### New build and restoration projects.

Public buildings, environmental education centres, visitor and interpretation centres, nature rooms, information offices and civic centres in rural settings.

Projects in protected natural areas, in administrative and office buildings, rural fire protection and emergency centres and in rural and urban settings, such as teaching and research centres.

#### Exceptional use and activity.

Projects for exhibition sites, fish markets, riding centres, archives, logistics centres, recycling centres, local produce markets, observatories, viewpoints, leisure areas, etc. Expert response to the diverse needs of consolidated urban or rural settings.

### Works management and coordinating health and safety issues for all types of construction work.

Tragsatec has qualified teams (architects and engineers) to manage architectural work and coordinate health and safety issues on all kinds of construction jobs.







#### Town planning and adaptation of areas.

Planning and town planning to adapt projects to sustainability, energy efficiency and passive solar gains criteria, providing them with basic infrastructures in both rural and urban settings.

Preparation of environmental and landscaping projects, completing housing and building procedures.

### Installations engineering

### Electrical engineering.

Street lighting and lighting, tertiary and industrial air conditioning, heat gain, fire prevention, integral agro-industrial plant projects, etc.

Introduction of renewable energies, photovoltaic, geothermal and biomass energy and the treatment and recovery of waste.

Studies and projects to improve energy efficiency.

Electrical engineering preaudits and audits.

Optimization of electricity rates and the implementation, monitoring and verification of saving measures, both in buildings and industrial installations.

HV (high voltage) and MV (medium voltage) supply lines, 132 and 45 Kilowatts substations, electrical substations, MV and LV (low voltage) industrial installations and LV auxiliary installations.

### Energy efficiency.

Energy audits of public buildings and the subsequent measures to improve efficiency.

Energy certification.

Energy management and maintenance optimization services.



### Auxiliary installations.

Air conditioning, fire prevention systems, lighting, electricity supplies, UPS (uninterruptible power source), voice and data services.

### Telemetry networks.

Agrometeorology, monitoring water resources, water and air quality controls.











Agricultural County Offices in Toledo

The Tragsa Group undertook the project to expand and improve the agricultural department's regional offices in Toledo. This involved a number of activities including the design for the new buildings and renovations and the final check of the facilities in Oropesa, Gálvez and Belvís de la Jara.

In Oropesa, work on the regional office firstly required joining the original two parts of the building, altering the main entrance on the ground floor and adapting the available services to meet accessibility regulations. By fully modernising the 367 m<sup>2</sup> regional office, the building is now much more pleasant for users and workers; the damp has been removed, woodwork has been restored and the outside of the building has been cleaned.

The Hogar del Pensionista association for elderly people in Gálvez had a whole floor that wasn't being used and which was adapted to become the department's new regional office. To do this, the layout of the existing rooms and partition walls was completely changed to give the building a central service area. Once this building and architectural work was completed in accordance with accessibility regulations, the total built area measured 626.28 m<sup>2</sup>.

In Belvís de la Jara, the construction project was more complex as the building was made up of three small, single-floor modules, which needed to be integrated seamlessly into the environment. The resulting unit has a total built area of 413 m<sup>2</sup> and was completed with a ground-level car-park.



<b>Experience:</b> 22 years
<b>Employees:</b> 22 <sup>3</sup>

Key data

Activities: 52

Scope of activity: National

**R&D&i:** 1 projects

**% of activity:** 1%

<sup>3</sup> Average number of jobs within the line of activity in 2013.



# Water



Tragsatec provides consultancy services and technical water planning and management advice to the government and entities in charge of water supply, waste water and purification in urban areas. The company's innovative technical solutions ensure the sustainable use of resources and prevention and protection in terms of floods and other harmful situations.

#### Water planning and management

# Consultancy services for drawing up water plans.

Using multi-criteria analysis, bodies of water are characterised and key elements are summarised to define measurement programmes and the fundamental axes used to manage river basin districts.



### Consultancy services in the water planning field.

Consultancy services to help implement national legal orders arising from European directives.

Drawing up of special drought and flood plans as well as the planning of over-exploited aquifers.

Water plan compatibility reports.

Development and implementation of basin management simulation models, which help in decision making and the preparation of environmental flow studies.

Definition of protection and safe-zone perimeters with regards supply catchment and studies on the artificial recharging of aquifers.





#### Technical services.

Processing, registration and technical management of use in the public water and maritime and land domain.

Working with governmental water departments on the regularization and processing of water use and public domain rights: water exploitation concessions and registrations; waste disposal site authorisations and reviews; infrastructure authorisations, installations and other special common uses and reports on regional and local governments' town and land planning approaches.

Development of IT tools for the technical and administrative management of water use and official records, such as the water register, the waste disposal site census and the national waste disposal site census.



#### Support.

Application of disciplinary measures (inspection, surveillance, control and sanctions) to the demarcation of public limits regarding water, sea and land, using strengthened and modernised surveillance services provided by river basin organisations. This work includes mobility tools to georeference movement, the real time transfer of data as well as direct methods such as monitoring networks, counting tools, samples and indirect methods, such as surveillance and remote sensing.

#### Monitoring and assessing plan, programme and measure implementation.

Monitoring and control indicators in terms of transitional continental and sea water quality levels and the control of invasive aquatic species or the proliferation of cyanobacteria.

Design, implementation, management and maintenance of quality, piezometry, flow rate and control of diffuse pollution by nutrients and pesticides networks.

Prevention and emergency plans in the event of a flood or drought.

Hydraulic water studies for the management of flooded reservoirs.

Up-to-date maintenance of dam inventories.







# Helping the government and managing the public domain.

Restoration, maintenance and conservation of riverbeds.

# Helping the government and managing primary supply and drainage networks.

Studies on improving water catchment, regulation and piping infrastructures and on the new regulation to complement by-laws and rework rates in order to boost water savings.

Consumption and efficiency assessments and the design of improved installations and initiatives to replace equipment with efficient technology.

### Water research.

Studies and projects on the artificial recharging of aquifers. Camera TV inspection equipment for use in drilling and pipes that can be used up to 1,500 metres deep, well logging and computerized tomography equipment used to prepare borehole reports.

### Water engineering

### Water and hydraulic works.

Preparation and analysis of plans concerning basin regulation, flood action and reservoir management, as well as feasibility studies and projects on construction (different stages), dam safety, irrigation reservoirs, supply networks and river engineering and coastal and riverbed restoration work.

### Expropriation.

Helping the government with expropriation processes.









### Drainage and water purification.

Comprehensive service: from initial studies of specific land and water requirements to the construction and operation of purification infrastructures, collection networks and storm tanks, negative pressure systems, pumping stations and the recovery and management of sludge in drinking water treatment plants (Spanish acronym: ETAP).

### Water distribution and supply systems.

Technical assistance for preparing and designing distribution and supply networks, desalination plants and help with operating and optimizing networks.

Design, management and use of drinking water treatment plants.





### Irrigation engineering.

Feasibility studies to determine the source and availability of water resources and existing alternatives, such as desalination and regeneration.

- Consultancy services across all stages of the irrigation process.
- Design and management of plans, projects and works.

# Inventories, water saving and managing water during irrigation.

Sustainable irrigation planning and monitoring through socioeconomic and efficiency studies.

Irrigation planning in developing countries within the framework of international cooperation.







che Aragón and Catalonia canal

There are 105,000 hectares of irrigated land, awarded via concession, around the Aragón and Catalonia canal and it is one of the largest of its kind in Spain. At 124 kilometers long, the canal provides the backbone to all its infrastructures, and although designs on the canal began during the reign of Carlos III, it wasn't opened until 1906. It was an ambitious civil engineering project that the Tragsa Group has helped complete over the years from 2006 to 2012.

The canal was originally designed to provide surface irrigation and its service capacity was adapted to new social requirements during the second half of the 20th century via pressure irrigation systems, which required the construction of water-collecting areas, pumping stations and piping networks.

Increasingly high electricity costs incurred through maintaining a pump-driven irrigation system, meant that all of the canal's installations needed to be updated to make the most of the different water levels between the canals and the irrigation areas. This was done by installing new pipes running level, perpendicular or alongside the canal, which allow exact amounts of water to be transported with the right water pressure for the needs of each plot of land, avoiding the previously expensive and ineffective system.

From 2006 to 2012, and in addition to the construction work described above, Tragsatec carried out a total of seventeen building projects, which included lateral and direct pipes and regulating reservoirs aimed at replacing the electricity-driven irrigation system used in an area of 14,000 hectares with systems that work using only natural water pressure.







**Experience:** 24 years

Key data

**Employees:** 138 <sup>4</sup>

**Activities:** 89

Scope of activity: National and international

**R&D&i:** 4 projects

**% of activity:** 4%

<sup>4</sup> Average number of jobs within the line of activity in 2013.


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## Farming Production, Fishing and Food Services. Farms

Tragsatec provides services to ensure the highest production levels on farms.

#### Training

#### Plant health and production training.

Development of training and information-giving activities, coordinating and running courses aimed at government workers, specialist industry technicians and farmers on plant health and national and international phytosanitary legislation; phytosanitary inspections and passports; exploration of harmful quarantine organisms; border inspections; comprehensive pest handling, integrated production and organic farming.

#### **Farming and livestock services**

Technical help and services to meet agricultural production objectives.

Technical consultancy services with regards food and agricultural markets and industry.

National and international agricultural product market research.



#### Technical and financial industry studies.

Specific studies on developments in the market for raw farm materials.

#### Diagnostics and improvement plans regarding productive sectors.

Studies on products, processes and productive process structures throughout the food chain to identify mechanisms that influence price setting.

Technical studies that respond to the specific needs of government and productive sectors (cost and characterization studies, diagnostics and action plans, etc.).



#### Implementing and maintaining environmental management systems in the food and agriculture industry.

Environmental management checks on farms for distribution to the agricultural industry.

#### Statistical food and agriculture operations.

Collection and compilation of data and management of registers and databases.

Improved statistical operations.

#### Integrated production.

Preparation of technical standards and regulations and controls to verify production standard requirements.

#### Plant and seed certification.

Agronomic value seed tests, the implementation of traceability systems in plant production and the creation and management of national and regional registers.

#### Promoting food and agriculture.

Technical consultancy services including measurement design and the organization of courses for professionals and consumers.

Support when organising awards and promotional events.



#### Helping with the export and import of animals and animal products.

Working with the foreign trade in livestock system (Spanish acronym: CEXGAN) which issues and deals with requests for export certificates and also working on the management of the master list (Lista Marco in Spanish) of establishments registered for exporting meat products.

Preparation of technical questionnaires prior to consolidating foreign markets and assisting with the visits made by representatives of third countries.

#### Helping with the export and import of vegetables and vegetable products.

Creation and maintenance of the foreign trade system (Spanish acronym: Cexveg) for managing requests to inspect imported and exported vegetable products and issue of the phytosanitary certificate.

Management of specific campaigns regarding exports to third countries with whom there is a bilateral agreement via the Cexveg system.



### Technical studies and tools for improving production competitiveness.

Technical and financial feasibility studies regarding productive systems.

Market studies and marketing plans.

Help for interprofessional organisations and the creation of simulation tools to identify industry strategies and policies.

### Improving and encouraging livestock species.

Working on developing national and regional programmes using herd-books, selection schemes and purebred performance.

Participation in research on and the improvement of genetic laboratory techniques and studies on animal welfare and protection.

Good practice guides and assessments of farming facilities and animal transport.







#### Traceability of animals and animal products.

World leader in electronic identification.

Design of pioneering European systems, such as the traceability and quality of raw milk system (Spanish acronym: LetraQ) and the Multispecies Animal Traceability System (Spanish acronym: SITRAN), which contain general registers of farms, movement and individually identified animals.

#### Technical studies on phytosanitary products, other phytosanitary protection measures and agricultural production

#### Phytosanitary products and other phytosanitary protection measures.

Phytosanitary products and other phytosanitary protection measures.

Speeding up of assessment and review processes for phytosanitary product authorisations.

Phytosanitary product reports in accordance with EU methodology.

Design and upkeep of applications to manage and maintain official phytosanitary product registers.

Specification of maximum residue levels (MRL) in vegetable products and the calculation of MRL processing factors for processed products.

System for controlling compliance with maximum residue levels of pesticides in primary agricultural production.

#### Study of agricultural and livestock production systems and environmental indicators.

Characterization of agricultural production methods, the areas where agricultural production takes place and the nitrogen gas emission/ collection processes in order to estimate the outflow and inflow of nutrients and to produce a summary of nitrogen and phosphorus levels in the agricultural industry.





IDENTIFICACIÓN DE CISTERNAS IDENTIFICACIÓN DE CISTERNAS



#### **Fishing services and maritime affairs**

Tragsatec's work includes scientific, management and educational tasks to balance the conservation of natural resources and values in marine ecosystems with sustainable use and gains. The company's experience in Spain is of great importance as the country is culturally linked to the sea thanks to its 10,000 km of coastline.

### Training and specializing in the marine and fishing environment.

Development of education plans in the nautical and fishing environments, environmental and sea safety information for industry professionals and students at national and international nautical and fishing schools.

#### Training in fishing cooperation.

Development of training plans for fishing cooperation in nautical and fishing environments for fishing professionals, scientists, technicians and trainers from countries involved in international cooperation agreements.

Logistical activities (teaching, translating, materials, travel arrangements, expenses) required to run the training courses.







#### Ship operations

Managing oceanographic and cooperation ships for fishing research campaigns and training industry professionals.

Equipping ships with specialised staff, management of supplies, suppliers and infrastructures; purchase, replacement and management of spare parts, stores and ship furniture and structures; shipping agent and port management services, contracting protection, compensation and navigation insurance for the boat. Guaranteeing the ship's communication systems operate adequately.





SITRAN, a comprehensive system for protecting the livestock industry SITRAN is a complex technical consultancy programme that analyses new requests. It has been under development since 2000 and it provides an ongoing and coordinated service to check new requests.

The system holds data, both on the central server and on the seventeen regional servers, used to prepare monthly, quarterly and six-monthly reports, depending on the specific case. The Animal Traceability Systems includes more than 800,000 farms with almost 50 million registered animals and this system has to be supervised by updating technical documents and subsequently checking data for use in lists, statistics and reports.

Another coordinating role being carried out is the taking part in Animal Identification forums, both national and international, to help users with the standardisation of these tools. They key objective of these systems is to protect the unique nature of the electronic animal ID.

In parallel to this, the Group's technicians produce annual, single-subject reports relating to animal identification, affected industries and species and the technologies involved. These reports are based on studies, national surveys and data provided by the Sub-directorate General, and they lead to the creation and dissemination of an annual dossier containing new information on animal identification: this a key tool for protecting this industry.







**Experience:** 24 years

**Employees:** 149 <sup>5</sup>

**Activities:** 51

Scope of activity: National and international

**R&D&i:** 8 projects

**% of activity:** 4%

<sup>5</sup> Average number of jobs within the line of activity in 2013.



### Health



Tragsatec provides technical help and consultancy services using quality, sustainability and environmental parameters.

#### Food quality and safety

Tragsatec responds to food safety policies and therefore the need for transparent, safe and traceable control systems to guarantee the quality and safety citizens' demand at all stages of the production chain: "farm to table". In addition, the increasingly high quality consumers want, both from a nutritional and a product excellence and diversification point of view, is leading to **quality differentiation schemes** which help drive markets and strengthen the sectors involved in the process (farming, agriculture and food industry).









### Protected designation of origin and other quality schemes.

Studies leading to the attainment of categories such as protected designation of origin (PDO) and protected geographical indications (PGI), organic food production, etc.

Statistical reports on production, financial value and foreign trade of products.

Quality differentiation production controls.

Creation of food business operator registers and the design, analysis and use of databases.

Design of marketing programmes.



#### Quality control systems.

Design, execution and monitoring of control procedures; taking of samples, supervision of industries, markets, border points, exchanges and commercial business operators.

Food promotion and European grant management programmes.

Implementation of health control, transport, storage and food distribution systems.

Traceability management throughout all stages.

#### Food controls.

Activities of all kinds to guarantee the harmlessness and fitness of foods, including control visits to storage centres, samples and analytical controls; verification of supply registers and the traceability and use of good practice in production and storage processes.

Audits of self-monitoring systems based on Hazard Analysis and Critical Control Points (HACCP) within the framework of national and regional control plans.

Food product border controls and the application of protocols regarding taking samples, seized goods, quarantines and monitoring.



#### Animal by-products not intended for human consumption (Spanish acronym: SAN-DACH).

Consultancy services provided for management of SANDACH.

Databases containing establishment and carrier registers.

Training and information on regulations, traceability and the design of standardised procedures for carrying out official controls.



#### Slaughterhouses.

Equipment and training of inspection assistants at slaughterhouses so that standards concerning animal welfare and the removal and destruction of sources of risk are correctly applied.

#### Waste in food.

Development of control methodologies to detect waste in food.

Taking samples for analysis and the traceability of results according to the protocols set out in the national waste plan.

IT tools for managing and using data contained in the samples and analytics registers.

#### Food risks.

Taking part in the management of the Spanish network of food warnings and official food product control programmes, providing technical support to the relevant laboratories to develop food analysis techniques.



#### Food and agriculture laboratories.

Provision of equipment and training, the setting up of quality systems and studies on improving performance and managing staff and resources.

Design of IT tools to monitor samples, coordination of laboratories and the setting up of intra and inter-laboratory information networks.

### Organic farming and food and agriculture commercial quality controls.

Working with governments on official controls and the development of business operator registers.











#### **Public health**

Tragsatec works and develops initiatives to protect, promote and restore the population's health.

#### Chemical risks.

Development of activities aimed at preventing, reducing and controlling the harmful effects on our health of being exposed to dangerous chemical substances and mixtures and the preparation of registers containing phytosanitary substances, biocides and mixtures.

Toxicity assessments and classification according to danger; processing and interpretation of data to be used in reports.

Design and development of the tobacco observatory and the updating of legislation and monitoring of the effect of measures taken.

Analysis and monitoring of mortality and morbidity rates. Taking part in international forums.

#### **Biological risks.**

Design and analysis of health warnings, surveillance networks and prevention plans.

Simulations using different health indicators.

Coordination of specialized teams and international health warnings.

#### Environmental risks.

Preparation of integrated urban pest plans.

Activities to disinfect, fumigate and exterminate rats in buildings.

Control of urban animal populations considered to be pests.

Prevention and control of legionnaire's disease in at risk facilities.

#### Water control.

Design and development of health control systems relating to water for human consumption.

Design, application and use of databases.

Preparation of statistics and annual reports.

Taking part in European control systems.

#### **Medication controls**

#### Registering and authorisation systems.

For mainstream and homeopathic medicines.

For drug distribution control.

For border movements.

For the consumption of medicines by different parts of the population.





#### Creating and helping groups of experts.

Organisation of forums, seminars, IT tools and systems for exchanging information to gather data used to improve the health system.

#### **Animal health**

Tragsatec has more than twenty years of experience working with the government on activities relating to animal production and health to ensure the animal population is healthy and competitive.



#### Managing health warnings.

Activities undertaken within the coordinated State plan of health warnings.

Emergency drills and the execution of activities to control and eradicate notifiable diseases.

Design and implementation of IT tools, such as the vet health warning network system (Spanish acronym: RASVE), the animal movement and animal product control system and the integral health centre management system.

#### Programmes concerned with the surveillance, control and eradication of animal diseases.

Of note are diseases that can be passed on or can affect people (zoonosis), livestock or foreign trade, such as contagious spongiform encephalopathy, as well as health campaigns and the monitoring of bird flu, etc.

#### Health activities regarding wild fauna.

Active and passive observation.

Health studies, sanitation of species that are hunted, diagnoses of dead animals and gathering of indirect data on the condition of fauna.

#### Animal health laboratories.

Preparation of procedures and the creation of specific equipment management systems.

Development and implementation of IT systems: Laboratory Information Management System (LIMS).

Helping accredit leading Spanish laboratories by providing support in terms of documents, procedures, training and audits.

#### Epidemiological studies.

On the distribution, frequency and control of diseases in animal populations so that scientific decisions can be made on the measures to adopt, associated risks and proposed actions.







### Collecting, transporting and destroying dead animals on farms.

Logistical organisation.

Creation of real time traceability systems regarding animal by-products.

Implementation of epidemiological models for controlling diseases.

Farmer service centres.



#### **Plant health**

### Surveillance, warning and information networks for agricultural and forest pests.

Design and implementation of networks providing early warnings of crop and quarantine pests and an analysis of the appropriate time to administer effective pest treatments, depending on phenology, climate and attack levels.

Generation of information published weekly on different websites as charts, maps and reports.



#### Phytosanitary inspections.

Field control plans to comply with inspections regulated by European legislation via Directive 2000/29/EC and emergency measures, control measures and the phytosanitary passport.

- Inspections to ensure compliance with ISPM 15 "Guidelines for regulating wood packaging material in international trade".
- On-site phytosanitary inspections to comply with bilateral agreements on exportation to third countries.





#### Foreign trade.

Opening up of vegetable product markets and the removal of phytosanitary barriers, protection from phytosanitary risks from new imports.

#### Developing IT systems used in plant health.

Official register of pesticide establishments and services and the issuing of phytosanitary product handler licences.

Official register of producers, traders and importers of plants and plant products.

Phytosanitary product use and waste monitoring plans.





Livestock health campaigns: effective health coverage when faced with an emergency Livestock health campaigns fall within the framework of National Programmes to Eradicate Animal Disease, which are co-funded by the European Union. The main objectives of these programmes are to prevent and eradicate diseases that affect cattle, sheep and goats, particularly tuberculosis and brucellosis.

Tragsatec has been working on planning and developing tailor-made campaigns since 1994 in Asturias, Extremadura, Galicia, Madrid and Navarre. These campaigns are based on livestock censuses, health status, the production system, orography and the traditional use of pastures.

Worthy of particular mention is the autonomous region of Extremadura. In 2013 alone, over 900,000 checks were carried out on cattle and 2,200,000 checks on small ruminants.

More than 200 workers are involved with this specific programme each year. Most of them are veterinary technicians, although laboratory assistants, livestock assistants and administrative and IT workers also take part.

Alongside the teams' experience, the necessary materials and logistics help provide a comprehensive epidemiological analysis of all health data and lead to the development of IT systems applied to animal health that help the technicians with their fieldwork.



In addition to this work, which varies greatly depending on the customer's needs, epidemiological surveys are carried out and a thorough inspection of the facilities is made. These actions provide data contained in the official health registers belonging to the relevant authorities and are subsequently used to technically assess farmers.



### **Experience:** Key data 17 years

**Employees:** 1.035 6

**Activities:** 

132

Scope of activity: National and international

R&D&i: 1 project

% of activity: 24%

<sup>6</sup> Average number of jobs within the line of activity in 2013.



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# Studies, technical help and consultancy services regarding Government policies

Tragsatec carries out technical help and consultancy studies for government departments following economic sustainability criteria.

#### Land planning and environmental awareness

Land planning requires an integrationist and multidisciplinary view providing an overall perspective that enables strategies to be defined and local scale planning to take place.

### Preparing, monitoring and assessing rural development programmes.

Specification of indicators and the integration of assessments.

Drawing up of controls and procedures manuals.

Territorial analysis of measures adopted. Study of aid by verifying and calculating aid premiums.

Development of IT applications to monitor aid management programmes.

#### Territorial farm agreements.

Technical help with signing such agreements and progressively integrating them into the programme.

Design of socioeconomic and environmental measures applicable to the agreements.

#### Studies.

Sociological, socioeconomic and environmental opinion and perception studies: situation diagnosis and analysis.

Collection and management of information from primary and secondary sources.

Technical and statistical reports on rural development and agro-environmental indicators.







#### Financial environmental evaluations: developing the methodology.

Financial evaluation of natural resources or for the setting up of environmental service payments.

Evaluation of environmental damage and help with applying the environmental responsibility system.

Evaluation of cost of managing protected areas and environmental accounting.

### Land development forecasts and good practice.

Reports and analysis on urban development.

Study of urban ecological footprint and its impact on the rural environment.



Reorganization of property to improve existing

farms by optimizing their size, improve access

and to regulate their legal position via new

Regularization of the legal patrimonial position.

Evaluation of estates and compensation rights

Management of estates, roads, train lines, etc.,

expropriation within the rural development sphere and of infrastructures and publically

Land consolidation.

property rights.

for loss of profit.

owned properties.

Patrimonial management.

Property classification studies.

Assets and rights inventories.

### Equality, employment and immigration in the rural setting.

Policy support through assessment.

Analyses of social cohesion and vulnerable groups.

#### Observatories.

Studies to diagnose the different existing situations in rural settings, enabling the identification and transfer of good practice.

Participatory processes and seminars among relevant groups.



#### **Telemetry and control networks**

#### Information networks.

Design, setting up, maintenance and use of networks applied to weather, flow rate registers, consumed volume controls and the monitoring and recording of water and air quality.

Data collection tools. Laboratory with weather sensor calibration equipment available.





#### **Fishing industry planning**

#### Maritime and port management.

Ship inspections, integrating new functions to IT systems.

Studies on maritime and port traffic, intermodal transport and sea motorways.

Maritime signing projects and marking systems for port authorities.

#### Structural fishing policy.

Management and coordination of EU funds on a regional and State level for improving the industry's structure.

### Studies and projects applied to fishing and the marine environment.

Socioeconomic and bio-economic fishing area studies, marine fishing technology, renewable energies, environmental evaluations, invasive species controls and marine infrastructure projects.

New technology pilot experiments.

### Socioeconomic studies on recreational fishing.

Marking out areas and indicator proposals.

Surveys and data collection.

Diagnostics and reports.

#### Recreational fishing.

Registers for permits and recreational maritime fishing boats.

Filtering and use of recreational fishing data.







#### Fishing and aquatic information networks.

Collection and processing of information on fishing activity (catches, transfer, unloading, sales notes and fleet effort).

Verification of the information and compliance with regulations.

Preparation of fishing, aquatic and marine environment statistics.

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#### Cooperation and marine research campaigns.

Sea bed studies and characterization: biological mapping of the sea bed, bathymetry and taking of biological samples for laboratory analysis.

Current and marine sounding measurement campaigns.

Collection of detailed information on the bathymetry, quality, morphology and bionomy of sea beds.

#### Sub-aquatic archaeology.

Locating sub-aquatic cultural heritage.

Preparation of sub-aquatic archaeological charts using prospections, charts of the sea bed and bathymetry.

Filming and geophysical studies.

### Information technologies. Geographical information systems.

Tragsatec is an experienced and flexible company, enabling it to tackle highly complex projects in an agile and adaptable way. The company's continuous development strategy means that employees are knowledgeable in the market's most advanced tools and technology. All of this guarantees customers top quality technological consultancy support and technical help that meets their requirements.

The use of geographical information systems is characterised by the development of proprietary and third party technology and the continuous inclusion of technological innovation.

Tragsatec takes part in the IDEE working group (Infrastructure Spatial Information in Spain) and actively works to implement the INSPIRE directive (Infrastructure Spatial Information in Europe) in Spain, following European Union recommendations on the use of open and interoperable OPENGIS standards from the OGC (Open Geospatial Consortium).

#### Information processing.

Definition of geospatial databases.

Photointerpretation.

Gathering of maps and standardised thematic mapping series.

#### Tailor-made GIS applications.

Tailor-made tools (web and desktop) to edit, analyse, view and process geographic information.

Proprietary mapping editor technology for web-browsers, enabling database information to be updated without having to install software on the users' computers.





#### Web-based mapping server.

Proprietary technology that quickly provides information (raster, vector and alphanumeric) to be used by viewing, consulting and editing applications (designed specifically for publishing large amounts of information).



#### Web viewers.

Tools for integrated map viewing, fleet management and associated technical information using commercial, free or proprietary software. Of special note is the viewer that was developed to show SIGPAC mapping (Spanish geographical information system for agricultural plots) which covers the entire Spanish territory. This technology has progressed to improve viewing speed and scalability.









#### Mobile applications.

Mapping solutions for mobile devices that help the government provide citizens with public information using new technologies.

### Information devices (remote sensing and photogrammetry)

#### Developing solutions for mobile devices.

Tools for mobile devices that help with fieldwork, make information immediately available and reduce errors and mistakes. These tools are developed in different operating systems using connectivity protocols enabling GPS positioning, data capture and editing, the processing of raster and vector information and the use of peripherals, etc.

#### Remote sensing/photogrammetry.

Remote sensing and photogrammetry.

Processing of high, medium and low resolution satellite images using radar sensors and hyperspectral images.

Photogrammetric flight planning and LIDAR (Laser Imaging Detection and Ranging).

Analogue flight scanning.

Photogrammetric and LiDAR support and control. GNSS techniques (Global Navigation Satellite System).

Production of digital ortophotos, digital elevation models. Adjustment, classification and edition of LIDAR data.

Digitization of historical aerial images and production of digital ortophotos.

Photogrammetric restoration resulting in digital mapping.

Definition and execution of quality controls at all stages of the process.

Analysis of satellite images for collecting agrological data: drought monitoring, aid control, contamination, irrigation controls, etc.

Specialised training.

### Administrative management information systems

Tragsatec works with the government to modernise citizen communication channels and transform public management.





### Electronic administration and telematic procedures.

Solutions that encompass the entire lifecycle of administrative cases: entry and exit systems, telematic registry, digital signatures, electronic document repository, integration with B2B electronic invoice services (Business-tobusiness).

A digital signature platform has been designed and developed to standards for different services (signature validation, digital certificate validation, revocation status, issue of certified copies of original documents, etc.).

#### Tailor-made applications (web and customer).

To guarantee the different electronic registers, capture and validate information, search and consult data using search engines and prepare tailor-made reports or introduce Business Intelligence (BI) solutions.

Adaptation of development techniques to this type of application in the cloud.

#### Gateways and public service websites.

Using technology to provide users with a rich interface, accessibility, security, usability and scalability.

#### **IT consultancy**

The government's on-going technological development has generated many different systems that, individually, meet specific needs. Tragsatec designs strategies and selects tools to aid the transfer of information between systems, ensuring productivity.

The solutions, connectors and interfaces are designed to industry standards, guaranteeing that future systems can be connected easily and interoperate with current systems.









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Electronic administration.

Definition of standards and preparation of procedures.

ITIL consultancy (Information Technology Infrastructure Library).

Control, review and preparation of procedures and processes.

Feasibility studies.

Preparation and execution of test plans.

User service centre (Spanish acronym: CAU).

Tragsatec provides solutions based on both free and commercial software:

SGBDR (Relational database management system).

Web/application servers.

SOA platforms (Service-Oriented Architecture).

Programming languages.

Systems and communications analysis.

IT security.

Architecture designs.

Systems administration.

Control of applications developed by third parties.

Help identifying functional definition of applications.





Development platforms.
Data presentation.
Development tools.
Configuration/incident management tools.
CASE (Computer Aided Software Engineering) tools/modelling.

EIS (Executive Information System) and DSS (Decision Support System) tools and report generator.



Testing tools.

Development frameworks.

Development methodology.

Continuous integration systems.

Communications.

Content managers.

Document managers.

GIS.

Remote sensing.

Photogrammetry.

Specific services.

#### **Document management**

Tragsatec has developed IT solutions for managing **administrative cases**, including recording and filing, based on **document management tools** and **BPM** (Business Process Management). This reduces the use of paper, improving processing times and preventing mistakes made due to a lack of traceability.

Implementing case traceability and management systems that help manage the entire lifecycle of an administrative case.

Easy, instant access to information. All users can find out at what stage their case is at and can manage requests for further information online.

Implementation of electronic signature systems, guaranteeing the security and confidentiality of information systems.









#### Creating digitization centres and high productivity document cataloguing.

Design, implementation and rolling out of digitization centres and the cataloguing of high performance documents, enabling large amounts of documents to be managed.



#### **Agricultural and farming policies**

### Managing agricultural and international cooperation aid and subsidiaries.

Comprehensive help in managing and controlling aid (direct and single payment system, rural development programmes, Common Agricultural Policy related, international cooperation, etc.), taking part in all case processes, including the design of forms and the completion of case payments.

Creation, management and undertaking of consultancy work and the exchange of information from national and regional databases.

Consultancy work, analysis and specification of developments in tailor-made IT applications and procedures for the managing body (process re-engineering).

Technical and financial audits of aid cases.

#### Managing farming insurance and aid.

Design and administration of IT systems used specifically to manage milk quotas and premiums.

Quantification of incidents occurring on farms and technical studies on insurance feasibility.

#### Controlling aid set out in Common Agricultural Policy using remote sensors.

Photo interpretation of high and very high resolution satellite images covering all seasons taken from a wide sample of cases to detect and control irregularities and reduce the number of on-site visits.

Use of cutting-edge technology (mobile devices, GPS, sending work orders online, fleet control).

Work relating to the control of flooded surface area maintenance in rice cultivation.

### Controlling agro-environmental good practice and cross-compliance.

Verification of compliance with objectives concerning environmental and rural setting conservation, improved animal health, production of food and feed in accordance with animal welfare and food safety principles, providing tools for beneficiaries and inspectors.

### Geographic information systems (GIS) in the agricultural industry.

Updated land information to help with planning agricultural measures and decision making.

Creation, updating and maintenance of data using orthophotos from the Spanish Information System for Agricultural Plots (Spanish acronym: SIGPAC), which manages CAP aid and applications for its use.

 Tragsatec can create, use and update all types of GIS aimed at agricultural policy planning and sector management (GIS for citrus fruit and wine-growing, etc.), and can produce agro-climate and agricultural based mapping that may be useful in other work to manage and maintain land register information.

#### Land register mapping.

Production, updating and upkeep of land register documents.

#### Help with planning, managing and monitoring agricultural policy.

Design and monitoring of specific policies relating to genetically modified organisms, nitrate contamination from agricultural sources and good agricultural practices.



#### National and international agricultural insurance.

IT systems to manage agricultural insurance aid subsidies and special subsidies.

New insurance feasibility studies.

Management of legislation arising from unexpected loss.

Development of and research into new expert report methods.

Production of industry studies, promotion and spreading of insurance via websites.

Assistance with implementing agricultural insurance systems in developing countries (technical actuarial studies, training, consultancy, etc.).







Greater guarantees for livestock industry exports

Promoting the exportation of animals and derived products is a complex task implemented by MAGRAMA, which aims to open and consolidate new foreign markets. The main objective is to improve the registration and authorisation process for exporting companies, particularly those on the "master list", by developing establishment authorisation, hygiene and health and animal traceability protocols.

The steps taken to improve information have meant that the Foreign Trade in Livestock website is able to provide operators with all the information they need to export: restrictions, relevant news, health certificates and even all the information required to import and export domestic pets.

By simplifying administrative management through the creation of the "single counter" in CEXGAN 1.0, not only can audit processes be supervised, but health certificates for exporting products of animal origin can be requested and issued online. To date, 276,477 certificates have been issued.

Within the field of exports and in addition to setting up an electronic prenotification export system, it is important to mention the work carried out to draw up criteria, statistical samples and the implementation of the "National Control Plan" (which enables the truthfulness of required health levels and the traceability of the exported party to be checked) and the creation of the User Service for livestock export issues, which has already answered 31,000 calls.









# **Experience:** 24 years

Key data

**Employees:** 2.323 <sup>7</sup>

**Activities:** 745

Scope of activity: National and international

**R&D&i:** 8 projects

**% of activity:** 52%

<sup>7</sup> Average number of jobs within the line of activity in 2013.

#### Published by:

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