

ep^tisa

Together for a better future

Annual Report 2012



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Letter from Luis Villarroya Vice-President & CEO

In an extremely difficult business environment, everything we have achieved has come as a result of great effort. I have faith in our ability to continue growing geographically and to generate value for our clients and a future for our employees

The market for the Spanish engineering sector, linked for so long to investment in infrastructure projects, fell by 85% between 2011 and 2012; this is to say from a market of 3,500 million Euros to one that barely reached 500 million Euros. Therefore, we are facing a very complicated and painful situation where there is the option of disappearing in the absence of projects in the domestic market, or of changing fast and looking for projects abroad, where competition from foreign firms, financially stronger and with extensive international experience, is usually fierce.

Eptisa's income was consolidated at 135 million Euros, over 66% of which was in international projects. Our backlog at the end of the year totaled 181 million Euros, of which 78% were outside Spain. The number of employees was 2,000, of which 900 were working in our international offices.

The data shows that in Eptisa we have been and remain bold, and we have taken the only possible way out: to internationalize our activities and to export our services. The new environment requires internal chan-

ges that we have faced with firmness and commitment. The results allow us to look to the future and maintain domestic sales according to Spain's new economic situation.

One of our internationalization strategies is to collaborate with other Spanish companies in prospecting and developing international markets. In 2012, Spanish concessionaires and constructors achieved more than 25,000 million Euros in international construction projects. We are working with OHL in the Marmaray Project in Istanbul. The Marmaray

Project is one of the largest rail infrastructure projects in the world today and consists of the development of the rail-line connections between the Asian and European side of Istanbul, including the construction of an undersea tunnel in the Bosphorus Strait.

This new scenario is gradually implicating the Spanish industrial sector. Other Spanish companies from the energy, water or industrial sectors resort to Spanish engineering to procure their services in the countries where these companies are present. Eptisa collaborates with companies such as Iberdrola, Endesa and Airbus in their international projects.

Our geographical expansion plan has resulted in a permanent establishment in more than 15 countries. This has allowed us to keep close to the local markets in order to manage projects and tenders in direct competition with local companies. We have gained a knowledge of the market that can be exploited by other Spanish companies from the industry or services sectors. We have become a reference company in the market of Eastern Europe, the Caucasus, Central Asia, Turkey; India and Central America.

Market activity

The efficient management of natural resources is the biggest challenge that the new generations have to face, especially in view of overpopulation. Water is basic to the development of society. Our services in this sector aim to improve people’s access to drinking water and quality of life as well as to protect the environment.

The water and environment sector grew in 2012 to reach 28% of the company’s activity. Apart from the projects in Spain, we have consolidated our position in Europe, and this has allowed us to strengthen our position in projects in Central Asia, India and Peru. We have added technological solutions based on SIG and SCADA tools to our traditional

engineering services. We are therefore able to offer integral solutions covering from the management of water resources to turnkey projects in supply and treatment infrastructures.

Despite the decrease of investment in the transport sector in Spain, this sector still represents 25% of our income thanks to international projects. Our experience in Spain in the road and rail sectors has helped support us in the new international projects achieved throughout 2012, especially in Turkey, the Balkans and the Caucasus.

To the technical quality of our employees in the design and works supervision services of transport infrastructure projects, we have added our experience in geotechnical studies and pavement design. Our long history of developing road infrastructure projects in Spain has enabled the export of our know-how in geotechnics, pavements, tunnels and hydrogeology services to international projects.

In Spain, we work for ADIF on the major High-Speed railway lines in Galicia and the Basque Country, providing engineering and quality control services. In the road sector we have brought together our knowledge of road surfaces and GIS tools to offer a unique technological solution for road maintenance.

In 2012, the information technology activity reached 12% of the total. Despite the slowdown in new investment in technology by the Spanish Public Administration business has remained stable. The key to growth

has been the export of our technological products and services as is the case of our participation in projects in Costa Rica, Georgia, India and the recent contract of the GIS System of the Water Company of Lima in Peru.

The building, energy and industrial sectors represent 16% of our activity. In spite of the serious crisis in the real estate and industrial sectors in Spain, we continue to work on design and supervision projects of unique and industrial buildings of high technological value. In the industrial sector we have supported our clients in their projects in China.

Renewable energy is a growing sector in emerging markets. Spanish companies are world leaders in this field. This year we have taken part in national investment plans in Kazakhstan, the Balkans and the Caucasus. Our local and technical knowledge is an opportunity for business development in the renewable energy industry.

The health sector has grown to represent 8% of our activity. Our centers maintain year-round occupancy of nearly 95%, despite the government’s freezing of new public-private places. The excellent therapeutic and management work of our team has positioned us as one of the companies with the best reputation in the area of treatment of mental health. This has meant an increase in the number of private clients. But what I am really proud of is the work carried out with patients in any and all of our Casta Centers.



The R&D work in this sector started three years ago is already showing results and is becoming one of the main activities of Casta Health. In addition to the three projects already underway, in 2012 we have embarked on a fourth with the financial support of the Centre for Industrial Technological Development to study biomarkers to improve clinical management and the future application of personalized medicine.

During 2012 we have been developing consultancy work for public health projects. The National Drugs Plan has entrusted Casta with the study on "Portfolio of Basic Services on Drug Addictions". The assignment consisted of the development of a properly structured portfolio supported by scientific evidence and valued according to uniform parameters together with other services.

From national to multinational company

International activity has grown steadily over the last three years as a result of a development plan that stretches to the year 2015.

The key factor in development is a geographical expansion plan. 2012 has seen our presence in 38 countries expand to 42. International bidding has been concentrated in Europe, mainly in Eastern Europe and the Caucasus, but the engineering sector is expanding in Central Asia, Africa and the Middle East.

The permanent delegations have grown as a result of their proximity to local markets permitting a better management of tenders and projects, the exploitation of the knowledge gained from successfully completed projects, and the prioritization of services in order to obtain the objective of the projects.

Also in 2012 we strengthened our position in projects financed by the European Commission, the World Bank, the Asian Development Bank and other multilateral financial enti-

ties. For several months we ranked first among European companies that take part in European Commission programs, and we were one of the top Spanish companies consulting for the World Bank.

In development cooperation, which represents 11% of our business, we continue to work with the European Union in monitoring projects in Latin America, Cuba, the Caribbean, the Pacific and Africa. And in 2012 we not only increased our presence in development projects in North Africa and Mozambique but also consolidated our position in ongoing projects in Central America.

Corporate Social Responsibility

We are aware of the role of our company in the development of society and the influence of production activities on the environment in which we operate. This is why we are working on an action plan that includes environmental and social sustainability within our activity.

We have renewed the SA8000 certification that guarantees international requirements of corporate social responsibility relating to human rights and working conditions.

As a result of our work with the Adecco Foundation, we successfully maintain the Family Plan started two years ago to support employees with disabled family members.

The only sure way of creating value for our clients is R&D. In engineering we are doing research on photocatalytic pavements and a revolutionary monitoring system that enables the assessment of the pathological state of different surfaces. In a collaborative effort, the information technology and the engineering activities have developed an IT solution for the management and inventory of roads that includes a module for road surface management. Both projects optimize the management and maintenance of infrastructures.

We continue in our efforts to improve our know-how, create customer value and innovate to improve wellbeing



Governing Bodies

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President

Luis Villarroya Alonso
Vice-President & CEO

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Javier Sanz Urbina

Luis Villarroya Alonso







Spain

Transport

Throughout the year 2012, there has been a decline in investment in Transport Infrastructure projects. Eptisa has continued offering services in engineering and information systems to improve mobility by road, railway, ports and airports, always paying the highest attention to technical quality, economic optimization, safety in construction and operations, the functionality of the operation and the utmost respect for the environment.

In the **Railway** sector, Eptisa provides services in design, technical assistance, quality control and monitoring.

In the Canary Islands we are working for *Gran Canaria* Railway Authority in the basic and detailed design of the platform of the railway line between *Las Palmas de Gran Canaria* and *Maspalomas*, Section: *El Berriel (Barranco Hondo) – Playa del Inglés*.

In the Basque Country, Euskal Trenbide Sarea (ETS) awarded Eptisa a new contract for drafting the detailed design of the section *Altza-*

Galtzaraborda of the metro line *Donostialdea*. The section is in the line *Lasarte Oria-Donostia-Hendaia* between the future station of *Altza* and the present one of *Galtzaraborda*.

During last year, we have worked in **High-Speed Railway** lines projects, providing technical assistance to supervise the construction works, as well as quality control of the construction materials.

In the Basque Country we were awarded technical assistance for the control and supervision of the platform construction on the section *Elorrio-Atxondo* of and the section *Hernialde-Zizurkil* of the *New Railway Network* in the region of Guipuzkoa. In *Galicia* we are working on the technical assistance for the supervision of the platform construction on the section *Portocamba-Cerdedelo*. And finally, in the *Levante* region, we supervise the construction works of the new high-speed railway line in the section: *Encina-Játiva*. Phase I. Subsection: *Encina -Mogente*.

In **geotechnical monitoring and auscultation** services we have worked in the construction works of the cut and cover tunnel of *Antequera*, part of the *Antequera-Peña de los Enamorados* section of the high-speed railway line. We carried out the auscultation on the railway bury works in *Langreo* (Asturias), in Barcelona on the *Paseo de Gracia* station works, and in the Basque Country on the *Albertia* Tunnel construction works.

In the field of **Hydrogeology**, we work for ADIF, the Spanish Railway Infrastructures Authority, doing hydro-geological surveys of high-speed railway infrastructures. Specifically we are providing technical assistance in drafting the hydro-geological study of the North-Northwest high speed railway corridor in the *Burgos-Vitoria* section. The aim of the project is to provide basic information on the hydro-geological aspects of the section for drafting the detailed designs.

In the *Vitoria-Bilbao-Donostia* line we are working in the monitoring



Hydrogeology

and the hydro-geological survey of the *Udalaitz* massif for the section *Mondragón-Elorrio*. The study aims to improve the hydro-geological information of the section, so as to establish the effects that the route of the tunnel that goes through the western sector of the *Udalaitz* limestone massif for over 3,260 meters, could have on the operation and resources of the aquifer and its current exploitation.

In the field of **Urban Transport**, we were awarded the contract for drafting the detailed design of the section *Etxebarri-Ariz* to the *Galdakao* Hospital from *Basauri* of the line 5 of the metro of Bilbao.

In the area of **Freight Transport**, we are working with the General Directorate of Railways in the preliminary design of the new southern railway access to the Port of *Castellón*.

Throughout 2012, on **Roads**, we have worked both for the Spain's National and Regional Governments, offering our engineering services that cover from planning stages, with feasibility studies and informative studies, through the design phase (layout and detailed designs), the construction phase, during which we provide technical assistance and works supervision, and finishing with the operations

phase with consultancy services on road safety issues.

For the General Directorate of Roads of the Madrid Region, we underline the work done in the *Road Safety Study Contract* for the period July 2012–July 2014.

Likewise, we continue with the drafting of the feasibility study in accordance with the Spanish Law 30/2007 and the environmental impact assessment of the extension of the AP-36 highway, *Ocaña-La Roda to Chinchilla* for the General Roads Directorate of the Ministry of Public Works.

Eptisa, which currently holds the Vice-Presidency of the Iberian Photocatalysis Association, has assessed the Municipal Housing Company of the City of Madrid for the construction of a decontaminant pavement and of a photo-catalytic island (a result of the application of several decontaminant products on pavements and buildings in a localized area) in the *Eco-neighborhood of La Rosilla in Vallecas*, Madrid.

Through the use of these types of technical **innovation**, we aim to work with local governments to improve air quality, with the aim of reducing the adverse effects of pollution (especially NOx gases) on people's health.

In the field of **technical assistance to construction management**, we are working on the construction works for the GI-632 Bypass; section *Urretxu -Antzuola* in the province of *Guipuzkoa*.

Thanks our network of accredited laboratories, we were able to respond the needs of our customers in the country and to work on **quality control**, industrial safety in road construction projects.

In the year 2012, the public company *Bizkaiako Hegoaldeko Akzesibilitatea (INTERBIAK)* has awarded to Eptisa two new contracts for the quality control of the construction works on the two main cross roads in *Bizkaia*, the *Bermeo's* realignment (3,00 Km) and the section *Amorebieta-Muxika* (3,46 Km), that are currently under construction.

In *Castilla y León* Eptisa has carried out the quality control of the quality assurance plan of the construction of the CN-630 road for the section *León Cembranos*.

In Galicia, we did the quality control of the construction materials, carrying out the relevant laboratory tests and on-site tests for the section *Palas (West) junction-Guntín* junction and the section *Lavacolla-Arzua West* of the Highway A-54 in Lugo. In the



Quality Control in the construction of Arzua-Lavacolla Section of the A-54, Lugo



Quality Control Plan of the construction works of the Leon-Cembranos section CN630

Highway A-8 in the section *Careira-Lindín* and section: *Lindín-Mondoñedo*, Eptisa has done the quality control of the constructions materials that included the relevant laboratory tests and on-site tests.

In **Research and Development (R+D)**, Eptisa is working on a new pathological monitoring system of surfaces and pavements and the

development of *ROMA*: the technological solution for the inventory and maintenance of road infrastructures.

Eptisa has made available to its customers a revolutionary high performance monitoring system that makes it possible to evaluate the condition of the surface. This equipment is based on multi-frequency geophysical, multi-dimensional te-

chnology with GPS.

ROMA (Road Management System) is the most comprehensive technological solution for the treatment and professional management of the information related to linear infrastructures due to its advanced visualization, edition, consulting, and management and information analysis capabilities.



◀ TECHNICAL ASSISTANCE FOR THE CONTROL AND WORKS SUPERVISION OF THE SECTION HERNIALDE-ZIZURKIL OF THE NEW RAILWAY NETWORK OF THE BASQUE COUNTRY

The section Hernialde-Zizurkil, with a construction budget of 169,011,341.70 € and an execution period of 42 months, is 5,870 meters long, of which 5,149 meters (88 %) are in tunnel, 498 meters on a viaduct, and 223 meters on an embankment. The route starts in the north entrance of the Montezkue tunnel, part of the section Tolosa-Hernialde. Among the most important elements include the Hemialde viaduct, of 25 meters in length; the Anoeta Tunnel, of 1,397 meters; the Alkiza viaduct, of 69 meters; the Asteasu Tunnel of 2,065 meters; the through tunnel of Ugarte of 268 meters; the Asteasu viaduct of 404 meters; and the Zizurkil Tunnel of 879 meters.



◀ TECHNICAL ASSISTANCE FOR THE CONTROL AND SUPERVISION OF THE PLATFORM CONSTRUCTION WORKS OF THE SECTION ELORRIO-ATXONDO OF THE HIGH-SPEED RAILWAY LINE VITORIA/GASTEIZ-BILBAO-DONOSTIA/SAN SEBASTIÁN

The section has a length of 2.6 kilometers and runs through the municipality of Elorrio in Vizcaya. Along its layout, in the project is planned the construction of the Kinatoi viaduct (880 meters long), the viaduct over the Zabaleta river (320 meters in length), and over the Larrazabal stream (200 meters in length).



◀ **AUSCULTATION DURING CONSTRUCTION OF THE CUT AND COVER TUNNEL OF ANTEQUERA, PART OF THE ANTEQUERA-PEÑA DE LOS ENAMORADOS SECTION, OF THE HIGH-SPEED RAILWAY LINE ANTEQUERA-GRANADA**

Eptisa works on the auscultation project from the first excavation jobs and the preparation of cuttings, as well as the construction of the structure and its subsequent cover with earth. The control includes the implementation of a network of 19 inclinometers and 18 piezometers in both clearings. In this way, it is possible to control the horizontal and in depth movements and the fluctuation of the groundwater levels in the surrounding area.

Also, we have carried out a control of the different parameters in the structure of the tunnel, both on vault and inverted vault, including the tensional stress and the pressure of the earth on the structure, as well as the vertical movements on the inverted vault and on the land underneath it, complemented with the control in variations of the interstitial pressure. For this, a total of 300 sensors distributed on 10 control sections, which include 30 devices in each.

This auscultation system is being implemented with the aim of leaving it working during the operation of the line, so that it is possible to get long term information about the tunnel.



◀ **TECHNICAL ASSISTANCE FOR THE CONTROL AND SUPERVISION OF THE CONSTRUCTION WORKS OF THE HIGH-SPEED RAILWAY LINE OF LEVANTE. SECTION: ENCINA-MOGENTE NODE.**

The work is at two levels: Construction of the platform and the superstructure over the abandoned platform of the former railway to house the Iberian gauge double track; and the construction of the platform and superstructure of the Iberian gauge double track of the new line named the Mogenite Bypass.

All the existing bridges and viaducts should be replaced by new structures that are suitable to accommodate the double track. The bigger viaducts and bridges will be replaced by new viaducts, while the smaller ones will be replaced by frame structures. Numerous stone vaults have been lengthened with frame or arch type structures. The existing overpasses will be replaced by new ones that allow the passage of the double Iberian gauge underneath them. Then it will be expanded the existing section of the Santa Bárbara tunnel, which is 257 m long, going from a section of 27 m² to another of 75 m².



◀ **AUSCULTATION DURING THE CONSTRUCTION OF THE ALBERTIA TWIN TUNNELS OF THE HIGH-SPEED RAILWAY LINE VITORIA – BILBAO – SAN SEBASTIÁN**

We are planning to install 8 intensive instrumentation sections, with the aim of monitoring different parameters, such as the deformation of the screen during excavation, total and interstitial pressures on both sides of the dig and the groundwater tables to control the barrier effect. This auscultation project involves the installation and monitoring of more than 700 devices and surveying instruments, during the construction phase.

During the excavation works of the Albertia twin tunnels of the High-Speed Railway Line Vitoria-Bilbao-San Sebastian, Eptisa has implemented an auscultation system inside the tunnels. During the construction phases and addressing the specific problems of each section, which result from the lithological complexity, various devices have been installed to allow the collection of data concerning the behavior of the land and the support elements.

A total of 6 Sliding deformeters have been installed, to track the vertical and in depth movements as well as 6 piezometric columns to control the piezometric levels. We have also installed 12 control sections made up of vibrating wire extensometers and pressure cells of different ranges, to monitor the pressure of the earth against the support, as well as its tensional stress.



Geotechnical study for the works to increase the draft of the port of Marín

In **Ports**, we have provided technical assistance, quality control and environmental supervision services. In the port of *Marín*, we have procured technical assistance for the geotechnical study of the project to increase the draft of the south commercial dock. We carried out soundings and pressure meter tests for the field surveys.

In the port of *Cádiz* we provided technical assistance to ensure the Quality Assurance Plan for the new container terminal construction. During the work we moved a flotsam of the XVI-XVII century, from the foundation area of the caissons to an area of non-interference with the construction works.

In **Airports**, Eptisa provides technical assistance for the design of project and works supervision at the main Spanish airports.

Thus, at *Madrid-Barajas Airport*, we worked on the technical assistance project for the control and supervision of the refurbishment works of commercial zones in the terminal T4.

In the airport of *A Coruña* we are providing technical assistance for the control and works supervision of the enlargement of the runway. The works consist of an extension of 400 meters of the runway, projected on an embankment that is 35 meters high.

At *Teruel Airport* we are drawing up the pavement design of the 60,000 sq. meters of the apron, the geometric design of the taxiways, and of the platform for dismantling and recycling of aircrafts.

Teruel Airport





▲ QUALITY CONTROL IN THE CONSTRUCTION OF THE HIGH-SPEED RAILWAY LINE VALLADOLID-BURGOS. SECTION NORTHERN NODE OF VALLADOLID-CABEZÓN DE PISUERGA

A section of 5.3 km of railway platform in the municipalities of Santovenia and Cabezón de Pisuerga, with unique structures such as the viaduct over the Pisuerga River. Eptisa has done the quality control during the construction works, conducting laboratory tests of the soils, particle boards, concrete, steel and other materials used in the works.



◀ GEOTECHNICAL MONITORING AND AUSCULTATION OF THE BUILDINGS AND INSTALLATIONS AFFECTED BY THE BURY WORKS OF RAIL LINES IN THE CITY OF LANGREO

Eptisa is working for the Regional Government of Asturias, implementing an Auscultation System that makes it possible to get information of the reaction of land, structures and installations caused by the bury works of the rail lines in Langreo city. This is even more important when the tunnel is built in an urban environment due to the number of buildings that could be affected. For this reason, we are installing and monitoring, during the works execution, a network of leveling surveys, both on the surface, to monitor buildings and land, as in depth (using extensometers).



◀ TECHNICAL ASSISTANCE FOR THE SUPERVISION OF THE PLATFORM CONSTRUCTION WORKS OF THE PORTOCAMBA-CERDEDELO SECTION OF THE HIGH-SPEED RAYLWAY LINE MADRID-GALICIA, IN THE PROVINCE OF OURENSE

The section Portocamba-Cerdedelo, which is 2.3 km long, has a construction budget of 116,670,707.6 €, and runs through the municipality of Laza (Ourense). The project includes the construction of the tunnels of Cerdedelo (1,700 m), two independent tubes connected by evacuation galleries and the Teixeira's viaducts, of 530 m in length and 110 m in height. The layout has been designed for high speed double track with international gauge (1.435 mm).



◀ QUALITY CONTROL IN THE CONSTRUCTION OF THE HIGH-SPEED RAILWAY LINE MADRID-GALICIA, SECTION OLMEDO-ZAMORA

The construction of a length of 95 km is designed for the exclusive use of passengers, with two lines of UIC gauge, expected speeds of around 300 km/h and equipped with electricity of 25 KV CA.

About 20 viaducts have been built in the section, the construction of all of which was supervised by Eptisa. Within the section, the Viaducts of Zapardiel (347 m), Trabancos (875 m), Pitanza (820 m), Río Duero (620 m) and Arroyo del Puento (455 m), are remarkable for their size.

The services carried out by Eptisa consisted of quality control of the construction materials (concrete, steel, sub-ballast, etc.) and the on-site control of the compacting using nuclear methods and load bearing plates.



◀ AUSCULTATION OF THE REFURBISHMENT WORKS OF THE STATION PASSEIG DE GRÀCIA IN BARCELONA

During the remodeling works of the station at Passeig de Gràcia in Barcelona, the Spanish Railway Infrastructure Authority (ADIF), requested Eptisa to develop the implementation of an Auscultation System. The aim is monitoring the behavior of the structures, the terrain and the possible effects on nearby buildings, during the different construction phases. The main objective is to guarantee the safety of the construction works.

For this purpose, we have installed about 60 control devices: inclinometers, pressure cells, vibrating wire extensometers, geophones and automatic control centers in the inside of the tunnel, etc.

The results of the measurements are published on-line using the automatic control system called SAyTL; a Web based system, designed and developed by Eptisa. This makes possible to monitor all the information concerning the works supervision quickly and up to date.

▼ DETAILED DESIGN OF THE SECTION ETXEBARRI-ARIZ OF LINE 5 OF THE BILBAO METRO

The section is 6,500 meters long. It starts as a prolongation of the section Etxebarri-Ariz (upper level) with access to the Ariz engine sheds. The first part of the section is in viaduct and open to the sky, from where it goes underground and the sections alternate between cut and cover tunnels and real tunnels. As well as the initial surface section, the line goes through about 1,020 of cut and cover tunnel, including the expected stations (Sarratu Inter-

modal, Aperribai and Bengoetxe), and ends with about 5,230 meters of section in tunnel, that includes the sections corresponding to the underground stations of Galdakao and the Hospital.

The project includes the following elements: The intermodal station of Sarratu, Aperribai station, Bengoetxe station, Galdakao station, Galdakao Hospital station, Sarratu tunnel, underpass of the N-634 road, Aperribai-Bengoetxe tunnel, Bengoetxe-Galdakao and Bekea tunnels.



▲ FEASIBILITY STUDY IN ACCORDANCE WITH THE SPANISH LAW 30/2007 AND INFORMATIVE STUDY WITH ENVIRONMENTAL IMPACT ASSESSMENT OF THE EXTENSION OF THE AP-36 OCAÑA HIGHWAY

The purpose of the Informative Study is to collect and analyze the data required to define the different possible options for the new layout to lengthen the AP-36 in Roda as an alternative route to the A-31 (Alicante Highway), and to connect the new motorway with the A-30 highway (Highway to Murcia) due to increased traffic in the A-31 since 2006.

During development the study zone was defined and analyzed from an environmental perspective. We obtained the corridors that were compatible with the environmental criteria, and we developed subsequently the layout alternatives in the next phase of the Study (Phase B). In this phase a total of 8 alternatives were designed, all of which were toll highways with a new layout, both to the north and the south of the present A-31 highway. Also we studied the possibility of adding a third lane each way on the A-31 highway to comply with the request from the General Directorate of Quality and Environmental Assessment of the Ministry of Environment and Rural and Marine Affairs. After the studies were developed, and once the residual environmental impact, functionality, cost and investment had been determinate, a multi-criteria analysis was done to choose the best one, and was compared with the option of enlarging the present A-31 highway. To do this we did socio-economic and economic-financial profitability studies of each option.

The best alternative from an economic-social profitability point of view was to add a third lane to the A-31 between La Roda and Chinchilla de Monte-Aragón, because the investment is less than in the other alternatives and the benefits achieved are similar.



▲ QUALITY CONTROL IN THE CONSTRUCTION OF THE ATLANTIC HIGH-SPEED RAILWAY LINE, NORTH ACCESS TO THE NEW STATION AT VIGO

During the construction works we carried out the quality control of the materials, inspections of the pilings, conducted surveys, monitoring during the execution of the embankments, on-site tests, and control of waste water and testing the soil contamination.



◀ QUALITY CONTROL IN THE CONSTRUCTION WORKS OF TWO CROSS AXIS ROADS IN BIZKAIA: THE BERMEO BYPASS AND THE SECTION AMOREBIETA-MUXIKA

The construction of these two cross axis roads is part of the Territorial Road Sector Plan of the Provincial Government of Bizkaia, which has the aim to enlarge, improve and duplicate the present routes by the construction of new elements (tunnels, viaducts and second lanes) that improve communications and road safety.



The work carried out includes the creation of a database of accidents occurred, and the analysis of the background of the accidents. Then we developed the Annual Report of the Accident Rate that provides a detailed analysis of the accidents, obtaining, among other information, the roads with the high-

► CONSTRUCTION MANAGEMENT AND TECHNICAL ASSISTANCE TO THE WORKS IN THE SECTION URRETXU-ANTZUOLA OF THE GI- 632 BYPASS IN GUIPUZKOA

The section Urretxu-Antzuola of the GI-632 bypass, with a construction budget of 69,432,408.06 € and an execution time of 30 months, is 2,760 meters long and runs from the junction of Antzuola to the junction with Urretxu/Legazpi. It starts next to the steam bed Ipurtika, in the junction to Antzuola, which includes the 5+9 overpass, a future roundabout, two branches and the updating of the existing road. After the junction there is the Deskarga tunnel of approximately 620 meters long. Once past it, the route to Zumarraga starts parallel to the Mendiaratz stream and to the present road, until reaching the Urretxu-Legazpi junction. The section finishes in the kilometer point 8+560, where it connects with the section between this junction and the Zumarraga one. Immediately before the Urretxu/Legazpi junction on the kilometer point 7+970 is located the 7+9 overpass.

◀ TECHNICAL ASSISTANCE FOR ROAD SAFETY STUDY FOR THE GENERAL DIRECTORATE OF ROADS OF THE MADRID REGION

hest rate, the causes of most accidents, the factors involved and the types of accidents.

The Accident Black Spots (ABS) are also established and analyzed in detail. The causes of the accidents are established together with the factors involved, so that it would be possible to propose both short term and long term measures to be taken to improve the infrastructure

Finally, we carry out road safety inspections. In these inspections we travel across the road network with a vehicle equipped for inventory any lack related with marks, signage, protective barriers or geometry, among other aspects. With this information we can analyze the measure to be taken and the cost required to improve the road to the best conditions and to plan an appropriate investment program.



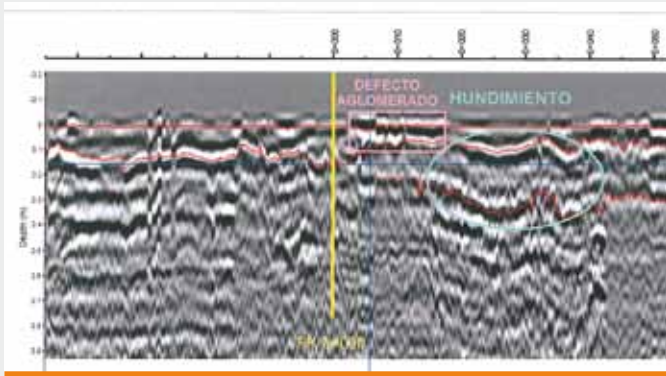
◀ TECHNICAL ASSISTANCE FOR THE CONSTRUCTION OF A DECONTAMINANT PAVEMENT AND A PHOTOCATALYTIC ISLAND IN THE "ECO-NEIGHBOURHOOD OF LA ROSILLA" IN VALLECAS-MADRID

Emissions of nitrogen oxides (NOx) gases mainly produced by the road traffic of big cities are the cause of a considerable number of allergies and cardiovascular and pulmonary diseases that affect the health of citizens living in large population centers.

Eptisa, which currently holds the Vice Presidency of the Iberian Photocatalysis Association has assessed the Municipal Housing Company of the City of Madrid (EMVS), for the construction of a decontaminant pavement and of a photocatalytic island (a result of the application of several decontaminant products on road pavements and buildings in a localized area) in the "Eco-neighborhood of La Rosilla" in Vallecas (Madrid), that included the drafting of the Technical Specification Sheets, Technical Assistance and quality control of the Building Work.

Through the use of these types of technical innovation we aim to work with local government to improve air quality, with the aim of reducing the adverse effects of pollution (especially the NOx gases) on people's health.





▲ CONSULTING FOR TECHNICAL ASSISTANCE ON SURFACES AND PAVEMENTS, THROUGH 3D PATHOLOGICAL MONITORING

One of the main problems encountered by managers of urban and interurban road infrastructure, when making decision during the operational phase is the lack of information on the state of the layers that make up the road surface.

Eptisa has made available to its customers a revolutionary high performance monitoring system that makes it possible to evaluate the condition of the surface. During 2012, Eptisa has taken measurements in various sections of the Madrid Local Road Network.

This is equipment based on multi-frequency geophysical, multi-dimensional technology with GPS, that makes it possible to obtain a great amount of information with optimum resolution at different depths, so that it's possible to identify superficial irregularities on the surface, thickness of different layers, subsidence, or swelling of the terrain, humidity at depth or lack of adhesion between layers, as well as detecting buried services with their associated positioning and size.



▲ ROMA (ROAD MANAGEMENT SYSTEM); TECHNOLOGICAL SOLUTION FOR THE TREATMENT AND PROFESSIONAL MANAGEMENT OF THE INFORMATION RELATED TO LINEAR INFRASTRUCTURES

ROMA (Road Management System) is the most comprehensive technological solution based on GIS technology from Esri, for the treatment and professional management of the information related to linear infrastructures due to its advanced visualization, edition, consulting, and management and information analysis capabilities.

ROMA has a set of tools that allows the assets inventory and management, the conservation planning scheduling and managing the preventive and corrective actions, including the pavement management.

The Pavement Management is an independent software, or an integrated module, a working tool that allows to know, how, when, where and why the pavement should be intervened, as well as determining the associated costs to such investment.



◀ TECHNICAL ASSISTANCE TO CONTROL THE QUALITY ASSURANCE PLAN FOR THE WORKS AT THE NEW CONTAINER TERMINAL OF THE CADIZ PORT

In its first phase the New Terminal will have a mooring zone 590.16 m long, generating a surface area of yard of approximately 22 hectares. The dock is of 16 meters deep. On the Northern side it will be closed by an "S" shaped mound breakwater and a wedge shaped caisson to close the first box of the dock and on the Southern side with a new construction area that will be provisional until the second phase of the terminal is finished.

The planned dock is made up of 13 reinforced concrete caissons plus a wedge shaped caisson in the extension of the Breakwater. The project includes the demolition of several structures (berthing docks, platforms and walkways). There is a plan to do a general dredging for the maneuvering zone of the big containers vessels in front of the New Terminal and in the access channel, varying the dredging depth between, -13.00, -14.50 and -16.00, depending on the zone. In addition there will be a trench dredged to remove the low load bearing material in the foundation area of caissons of the dock, in the Seawall and Closing Dock.

Eptisa will perform the control and report of the Quality Assurance Plan (QAP) prepared by the Contractor regarding the compliance or otherwise of the Technical Specification of the Works Execution (referred to as QAP) and the Technical Specifications of the Project.



▲ CONTROL AND SUPERVISION OF THE RUNWAY ENLARGEMENT WORKS AT A CORUÑA AIRPORT

The work consists of lengthening the runway by 400 meters, planned on an embankment that has a height of 35 meters. The runway will be 45 meters wide, with margins of 7.5 meters either side. The strip where the runway is located will have a width of 300 meters (150 meters each side of its centerline) extending 60 meters before each threshold. Also an area of 30,000 sq meters will be surfaced using a flexible pavement for the runway enlargement. In the area outside the airport, the CP-3104 road will be relocated, due to the destruction of part of it as a result of the runway enlargement.

The work planned also includes the restoration and rehabilitation of the elements that are listed as of cultural interest that appear in the Environmental

Impact Statement. In relation to the environmental aspects, a number of preventive and corrective measures are planned that, applied properly, should minimize and/or correct the environmental impact of the planned work.

The services consist of construction management in matters concerning execution; economic and quality control, coordinating health and safety, auditing aeronautical safety, as well as monitoring the compliance with deadlines, supporting the Management of the Report.



◀ PAVEMENT DESIGN PROJECT OF THE APRON IN THE AIRPORT OF TERUEL

The purpose of the works has been to draw up a 60,000 square meters pavement of the apron, the geometric design of the taxi ways, and the platform for dismantling and recycling the airplanes. This last area will be located on the west side of the hangar with a concreted surface of 12,000 square meters in the first phase.

Furthermore, there is a design to build a below ground pipeline network for the drainage of rainwater and possible fluids spilt by the airplanes and will connect with two contaminant separating stations, after which it flows into the general drainage system of the aerodrome. This was done taking into account the later stages of enlargement of the airplane parking area. The construction budget is 4.2 million Euros.



Water and Environment



The Water and Environment activity has maintained stable despite the decrease of public investment. Our work has focused on engineering services for natural resources management, the hydraulic infrastructures and supply and sanitation networks, for both public and private organizations. In addition to the projects in Spain, our activity in the water sector in Europe has positioned us internationally as the benchmark engineering company in the sector.

In **Water Infrastructure**, we have worked for *Iberdrola Ingeniería y Construcción* in the study of the possible damages in the accesses to the *Cofrentes* Nuclear Power Plant in case of a flood wave as a result of the hypothetical breaking of the *Alarcón* and *Contreras* dams.

In 2012, within a framework contract with the company *Endesa*, we have developed several studies related to its hydraulic infrastructures. Among others, the study on the stability of the northeastern dike of the gypsum leachate reservoir of the *Compostilla* power station in Leon. To do this we did two soundings of 15 meters each one, laboratory tests and the stability calculation using the Slide program.

Just as the study of the operating standards and procedures of the dams of *Montcasau*, *Torán Pont de Rei* and *San Juan de Torán*, *Tort Trulló* and *Tort Lago* in *Lleida*, according to the requirements in the



Study on the stability of Gypsum Leachate Reservoir

Technical Regulation on Dams and Reservoirs Safety.

We also worked on a classification of the gypsum leachate and slag and ash reservoirs, according to their potential risks in the peaks III and IV of the *Tort Trulló* dam in *Lleida* and the review of the classification based on the potential risk of the *Cardet*, *Morera* and *Montcasau (Lleida)* dams. The work consisted of obtaining the hydrograph of the dams breaking in different scenarios and the simulation and propagation of the hydrograph along the river bed (using the bi-dimensional program INFOWORKS). After the

identification of the flood areas we evaluated the cost of the different effects and the proposal of actions.

With respect to **dam auscultation works**, we have worked in the improvement of the auscultation systems of the main dams in Spain and in the maintenance and surveillance of hydraulic infrastructure for the main Catchment Basin Authorities, the Water Company of Madrid *Canal de Isabel II*, and the electric companies *Iberdrola* and *Eon*.

In 2012, we have provided the *Gabriel* and *Galán* Dam of the Tajo River Basin with an automated aus-



cultation system with a web-viewer for the data visualization. Eptisa has implemented the e-SayTL software (Scada system web based) and has developed the applica-

tion for the control, management and implementation of Emergency Plans in dams. This is an example of our capability to develop highly innovative technological solutions

to improve population warning systems in emergency plans for dams.

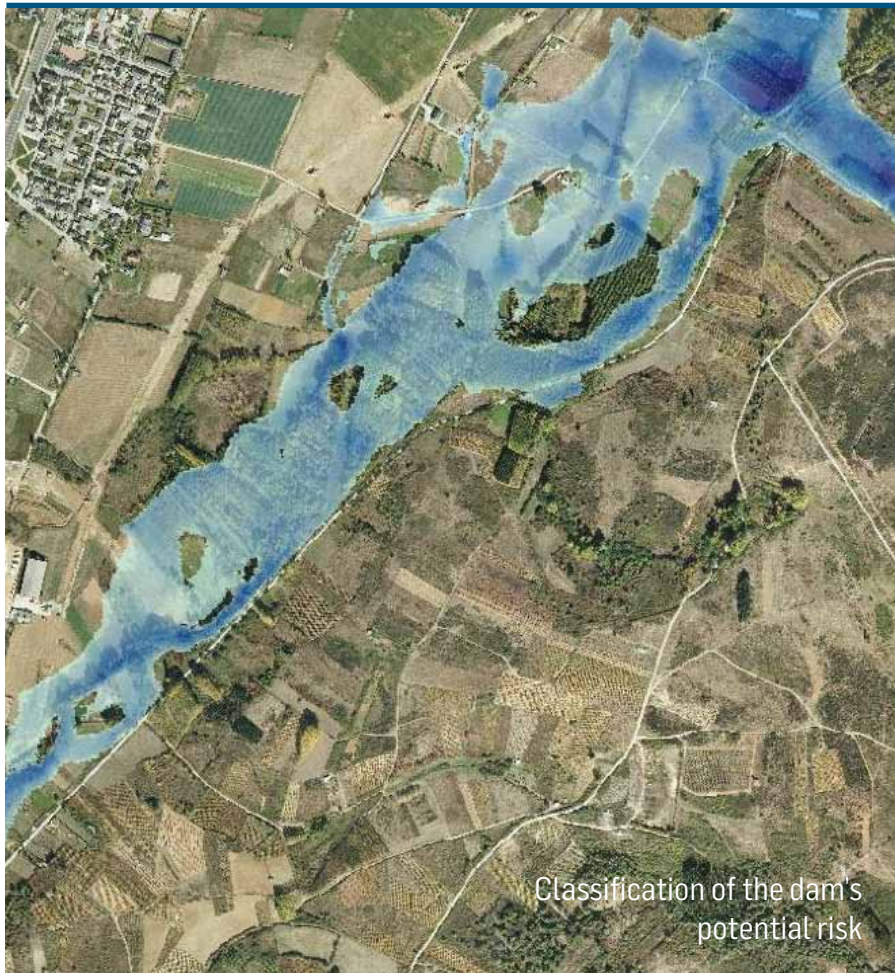
During 2012 we finished the work on the automation of the auscultation systems of the *Castrejón and Salas* dams, owned by *Gas Natural Fenosa*, located in the *Tajo and Salas* basins in the *La Puebla de Montalbán (Toledo)* and *Muiños (Ourense)* municipalities.

Also, Eptisa is undertaking the replacement and automation of the floodgates and regulating gates of the *Salto de Urdón* Dam, owned by *Eon Generación*, located in the National Park of the *Picos de Europa*, in the *Urdón* River basin.

Throughout 2012, we worked for the Public Authorities on the designs for the improvement of **Water Supply and Sanitation Infrastructures**.

In *Madrid*, within the context of the Framework Agreement signed with the Regional Water Company, *Canal de Isabel II Gestión S.A* we have developed the construction design for the supply system to *Serranillos del Valle*, a town at the south east of the Region.

With respect to **Water Resources Management**, Eptisa provides engineering services, technical



Classification of the dam's potential risk

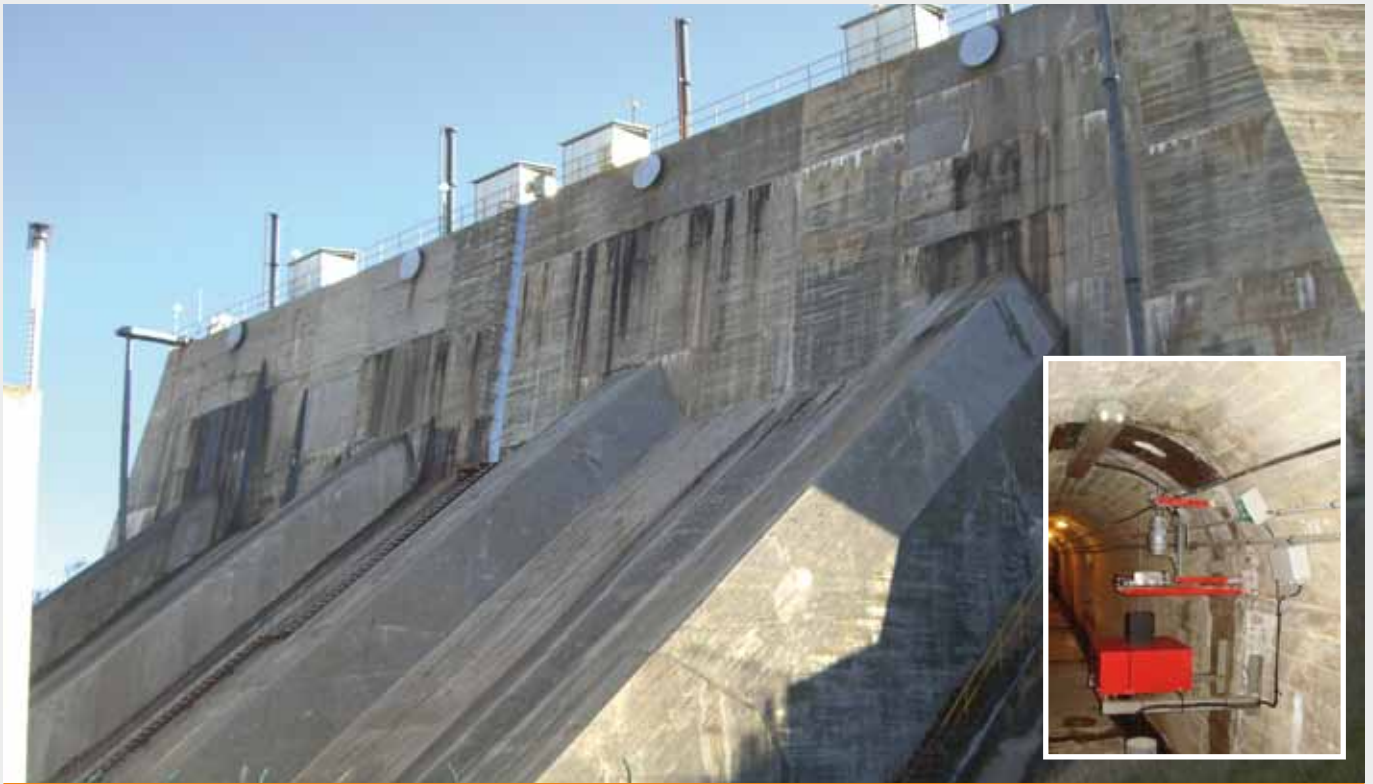


◀ FLOOD ANALYSIS OF THE ALARCÓN AND CONTRERAS DAMS

Iberdrola Engineering and Construction awarded Eptisa a contract to undertake the studies to know the conditions of the accesses to the Cofrentes Nuclear Power plant in case of a flood wave as a result of the hypothetical breaking of the Alarcón and Contreras dams. The Cofrentes Nuclear Power Plant is located in the town of Cofrentes, on the right bank of the Júcar River, about 2 kilometers upstream of the confluence with the Cabriel River.

On the Júcar River, and some 190 kilometers upstream of the Nuclear Power Plant, is the Alarcón dam. On the other hand, the Contreras dam is 110 kilometers upstream of the confluence with the Júcar River on the Cabriel River. The hypothetical break of one of these dams could flood the areas close to the plant as well as the access to it.

Eptisa has carried out the geometric model of the riverbeds based in LIDAR data; the hydrograph of the Alarcón and Contreras dams break and the hydraulic modeling of the Júcar and Cabriel Rivers; and the study of the effects in case of break along the bed using a bi-dimensional program INFOWORKS ICM. The study area was 210 km length in the Júcar River Bed and 110 km in the Cabriel River Bed.



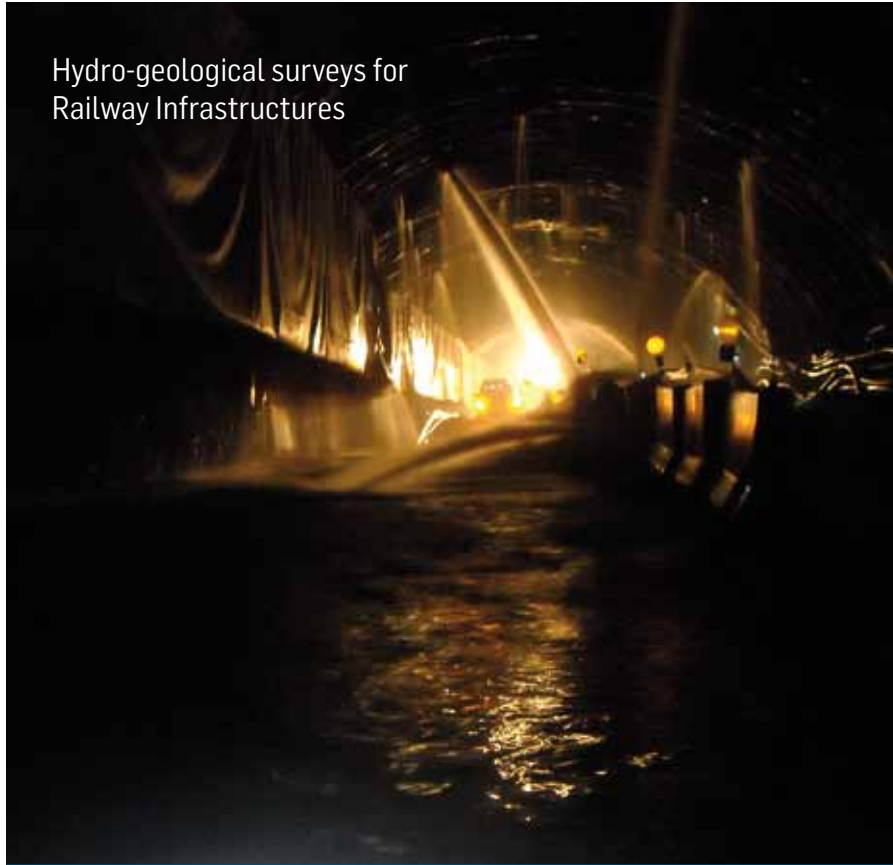
▲ AUTOMATIZATION OF THE AUSCULTATION SYSTEMS OF THE DAM, THE CANAL AND THE LOAD CHAMBER OF THE CASTREJÓN AND SALAS DAMS

The work done at both facilities include the provision of new sensors for the automation of the sub-pressures measurement in foundations through pressure sensors, seepage control in galleries and outside using ultrasonic sensors, tridimensional measurement in joints using potentiometers and LVDT's, deformation control on the foundation soil by LVDT's and control of the horizontal movements in pendulums using optoelectronic measurement equipment without contact with the wire.

The electrical signals of all the sensors are contained in cabinets spread around the plant, equipped with PLC's from Siemens series 1200 with an Ethernet communications port, connected with a control PC in each of the

hydroelectric plants. The connection systems used to unite the different equipment with the PC of each dam, were of newly installed optic fiber for the new dam cabinets, Wimax for the load chamber and *Castrejón* channel, VSAT for the connection of the *Castrejón* dam and CH of *Castrejón*, the client's optic fiber to connect the dam and CH Salas and the corporate network of the client to join the two facilities with the Orense Control Centre.

Both facilities installed as SCADA the WinCC system software V7.0, RT from Siemens with the WinCC/connectivity pack V7.0 module, for dumping the data to the corporate SCADA of the client PI (Plant Information from OSISoft).



Hydro-geological surveys for Railway Infrastructures

assistance and planning and studies to support the main River Basin Authorities in the **Hydrological Management Plans**.

Over the last year we have collaborated with the *Duero River Basin Authority* to drawing up the Hydrological Plan Proposal for the Spanish part of the Duero hydrographical catchment area. Towards the end of 2012 we were awarded an addendum to the contract to carry out the monitoring of the Plan and the implementation of its action program.

In the field of **Flood Risk Prevention**, we worked on the technical assistance for the adaption and development of the *National Cartography System of Flood prone Areas* in the Hydrographical Region of *Cantabria*. Eptisa is developing hazard and flood risks maps, as mandated by the Royal Decree 903/2010, of the 9th of July, for the evaluation and management of flood risks.

In the field of **Hydrogeology**, we develop hydrogeological surveys for high-speed railway infrastruc-

tures for ADIF, the Spanish Railway Infrastructures Authority. Specifically, within the context of a contract to carry out field work, hydrogeological tests and reports related to railway infrastructure.

In the area of **Waste Water Treatment Plants (WWTP)**, we offer specialized engineering services covering the full cycle of a treatment facility, from the design of treatment process, detailed engineering, construction, equipment and installation, to commissioning.

In 2012 we finished the works on the Drinking Water Treatment Plant (DWTP) of *Ponteareas* in *Pontevedra*, opened in July by the Councilor for Environment in the Regional Government of Galicia, together with other representatives of local government. The drinking water treatment plant provides water to 13,000 inhabitants, guaranteeing quality potable water. In this plant Eptisa carried out the design, detailed engineering design and the “turnkey” of all the electromechanical equipment.

The works to improve the water supply of *Plasencia* in *Cáceres* were finished, and accepted by the government in December. Also we finished the works for remodeling of the filter line II of the *Carambolo* DWTP in *Sevilla*. In both cases, Eptisa did the detailed engineering design and the “turnkey” of all the electromechanical equipment.

The Government of *Extremadura* awarded us the project for the construction of the *Riolobos* WWTP. The works consists of a wastewater treatment plant. Eptisa carries out the detailed design and the “turnkey” of the electromechanical equipment.

In *Burgos* we are offering consultancy and technical assistance services for prepare the Tender Specifications and support for appraisal of tenders submitted by the bidders for the works contract, as well as for drawing up the detailed design and for carrying out the expropriations, supervision and control of the enlargement of the Wastewater Treatment Plant of Burgos.

The Environment and Water Agency of Andalusia has awarded Eptisa a new contract for the construction management of the WWTP and some facilities related in *Uleila del Campo* in *Almería*.

In **Natural Environment** sector, Eptisa collaborates with public agencies in the management of natural resources. Throughout 2012, the joint venture made up of Eptisa and *Laboratoris Vidal* has continued developing the technical assistance for the exploitation of the water quality monitoring network project in the *Júcar* River Basin field, entrusted to us by the Ministry of Agriculture, Food and the Environment (MAGRAMA), through the General Directorate of Water.

In Galicia, in the field of **Industrial Environment**, we have worked in the area of quality control and industrial safety with the study of seepage of pollutants in the *Alcoa*



DWTP Carambolo in Seville

facilities in *San Ciprián* in Lugo. We have investigated the earth to analyze potential contamination, as well as groundwater runoff in an area of the facilities of the “Alúmina Española” plant in San Ciprián.

In *Andalusia*, we are working on the turnkey Project for the implementation of remedial measures in the tailings deposit of the works in the *Riotinto Mine* in *Huelva*. The main aim of the project is to conduct a

number of reinforcements to the containment walls of loose materials of the tailing deposit so as to ensure their stability.

DWTP Pontearreas in Pontevedra





▲ REPLACEMENT AND AUTOMATION OF THE FLOODGATES AND FEED VALVES OF THE SALTO DE URDÓN, CANTABRIA

Eptisa is undertaking the substitution and automation of the floodgates and feed valves of the *Salto de Urdón* dam, which belongs to *Eon Generación*, in the National Park of *Picos de Europa*, in the basin of the Urdón River. The canal runs through the towns of *Peñarrubia* and *Cillorigo* (*Cantabria*) and is accessed via *Tresviso*, through *Bejes* and *Urdón*, the last two being on horse and the others on foot.

The work includes the replacing of four floodgates one at the start of the canal one for regulating the canal (cross section) and two to regulate the amount of water from the Rio Chico All made of galvanized hot steel and placed once the old ones have been dismantled, using the existing guidelines and using a mortar to anchor the machinery. The installation also includes three ultrasonic sensors in each floodgate. All of the floodgates have AUMA actuators with Profibus-DP communication The union between the actuators

and the control PLC, which is located in the maintenance personnel hut, is done with a fiber optic cable that runs parallel to the power line, both housed in dual tubes of 50 mm of diameter, stapled to the canal wall higher than the maximum level of water in the canal. Electric power is supplied to the system through six solar panels installed on the roof of the hut at about 450 meters of the beginning of the canal and using batteries placed in the hut.

The gates can be operated through a set of buttons placed on one of the floodgates, remotely from a screen in the cabinet of the PLC of the hut, and using a GPRS mobile phone from the Eon Control Centre in Santander. The main difficulty of the work is that there is no vehicle access to any point of the work, to lower the materials it a helicopter is needed and personnel access is pedestrian by a mountain road with a slope over 400 m.



◀ CONSTRUCTION DESIGN OF WATER SUPPLY INFRASTRUCTURES PROJECTS IN THE REGION OF MADRID

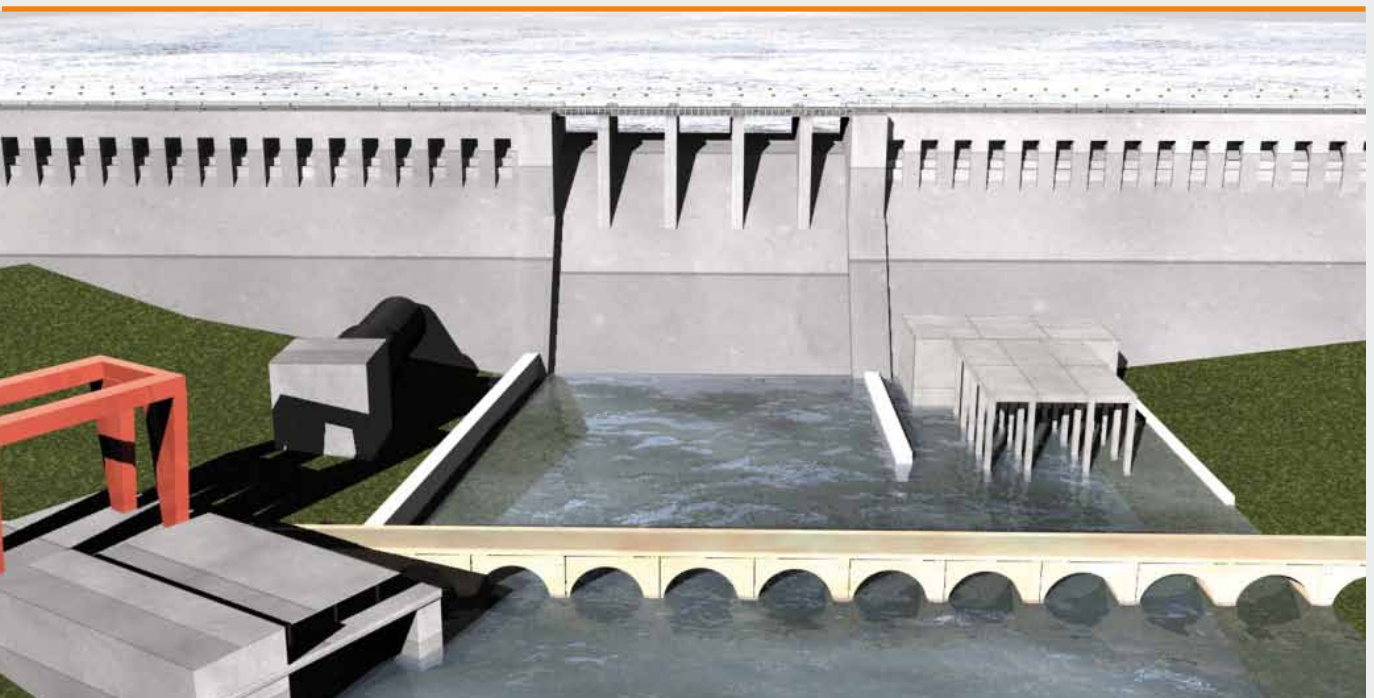
Within the context of the framework contract that Eptisa has been developing over the last two years for the Regional Water Company *Canal de Isabel II Gestión S.A.* in Madrid, we developed the construction design of the water supply system of *Serranillos del Valle*, a town located southeast of the Region. The scope of this project were the definition of the works needed to supply water to this town from the DWTP of *Griñón*, and that broadly included: enlargement of the present pumping system from the DWTP for the supply to *Griñón* and to *Serranillos*; layout of the new drive pipeline that connects with the distribution networked of *Serranillos*; connection works for the future enlargement of the supply system; and, finally crossing the pipes with four regional roads through underground pipelines.



▲ IMPLEMENTATION OF AN AUTOMATED AUSCULTATION
▼ SYSTEM IN THE GABRIEL AND GALÁN DAM

Eptisa has provided the *Gabriel and Galán* Dam located in the Tajo River Basin Authority, with an automated auscultation system with a Web based data visualization. The technology used is developed by Eptisa.

The auscultation system implemented was a piezometric network with Geokon sensors, seepage control with ultrasonic measuring devices from Siemens and tridimensional sensors for controlling movements in the fissures. All of them were manufactured by Eptisa. In addition, we would like to underline that the two data collection centers, as well as the control software (e-SAYTL), are products developed and manufactured by Eptisa. Since installation we have installed a preventive monitoring system through internet, and with optimal results to date.



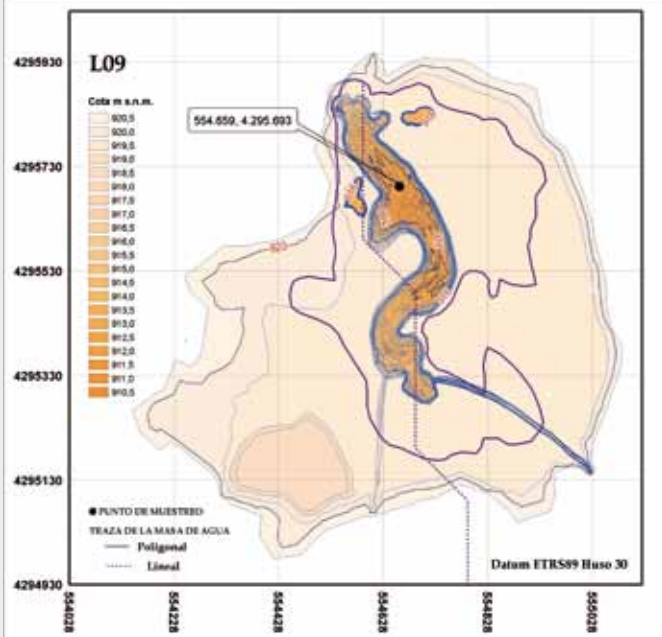


◀ WATER QUALITY MONITORING SYSTEM USING BIOTIC INDEXES IN THE JUCAR RIVER BASIN

The main objective of the project is the optimization, programming, and operation of the 'Water Quality Monitoring System of the surface water quality, by biological, hydro-morphological and physicochemical elements in reservoirs, inland lakes and coastal wetlands. The information obtained is processed in the laboratory to update the MAGRAMA's database and we write the monitoring reports. This procedure allows determining the evolution of water quality indicators in the water column, sediment and biota and evaluates the ecological status and ecological potential of the water bodies, according to the Water Framework Directive and Spanish regulations.

In the current Monitoring Plan, 75 stations in 29 reservoirs are controlled, 26 of which have been performed for sampling in the water column. In the lakes, 22 control stations are implemented and in the *L'Albufera* Lake of Valencia we installed 4 stations according to its size and environmental characteristics.

During 2012, in addition to the usual controls, we carried out special campaigns and specific studies for the characterization of the fish populations in these water bodies, as well as the morphological and bathymetric study of the lakes basin.



◀ MONITORING OF THE DUERO RIVER BASIN HYDROLOGICAL PLAN AND SUPPORT OF THE IMPLEMENTATION OF ITS ACTION PROGRAM

The river basin area is of 78,889 km2 and will benefit a population of almost 2,200,000 inhabitants. Eptisa has received a new addendum to the contract to perform the monitoring of the Duero River Basin Hydrological Plan and support the implementation of its action program.

Following the final drafting of the Duero Hydrological Plan (DHP), the aim is to advance in the planning process of the Duero River Basin Management Plan according to criteria and guidelines of the EU Water Framework Directive and monitoring of the Action Program and other plans related to the DHP.



The works consist in monitoring of the DHP planning and support the coordination of the information collection with the committee of relevant authorities, as well as the coordination of the information collection with the board of Water River Basin Authority. Provide information or reports to other agencies, stakeholders and public communication about the progress of the implementation. It also includes the preparation and submission of the data of the monitoring of the special action plans against a possible draught and flood protection plans. Finally, it concludes with the proposal report for corrective actions and additional actions in order to reduce the gap deviation to achieve the aims of the DPH and the development work of the next hydrological planning cycle and the support for the public participation processes related to the development of the hydrological plans and the economic characterization of the plan and the economic impact study of the application of the actions proposed in the plan.



▲ TECHNICAL ASSISTANCE FOR THE DEVELOPMENT OF THE NATIONAL CARTOGRAPHY SYSTEM OF FLOOD AREAS IN THE NORTHERN SPANISH HYDROGRAPHICAL REGION OF CANTABRIA

Eptisa is developing the flood risk maps for the sector covering the Hydrographical Region of Cantabria according to the Royal Decree 903/2010, of the 9th of July, concerning evaluation and management of flood risks.

Once finalized the cartographical, topographical, historical, geomorphologic and hydrological studies Eptisa is developing bi-dimensional hydraulic models of 2,100 km of stretches of river. All this will permit the definition and development of the flood prone areas and the flood risk maps, taking into account the scenarios of high, medium and low probability of flooding as well as the Hydraulic Public Domain Area and associated areas and the Preferential Flow Zone.

The Flood prone areas maps show the expected flood area and water depths. The Flood Risk Maps include an approximate number of inhabitants and type of economic activity that could be affected, industrial facilities; environmentally protected areas, debris flows and affected road infrastructure.

These maps will be the base of the Flood Risk Management Plans that shall be developed following the principles of solidarity, coordination between di-

fferent Public Authorities, coordination with other sector policies, respect for the environment and strategic planning with long term sustainability criteria.

In these Plans will be established the objectives of Flood Risk Management for every area, focusing on reducing potential adverse consequences of the flood for human health, the environment, cultural heritage, economic activity and infrastructure.

The Flood Risk Management Plans will take into account costs and benefits, the spread of the flooding and evacuation routes, the areas with potential retention of flood water, the natural floodplains, environmental aims, management of the land and water, land management, land use, nature conservation, navigation and infrastructure of ports. They will cover all aspects of flood risk management and will focus on prevention, protection and preparedness, the early warning systems and the promotion of sustainable land use practices.



◀ TURNKEY PROJECT FOR THE IMPLEMENTATION OF REMEDIAL MEASURES IN THE TAILINGS DEPOSIT IN THE RIOTINTO MINE, HUELVA

The main objective of the project is to carry out a series of reinforcements in the walls made with retaining loose materials from the tailing deposits to guarantee their stability. The reinforcements are created using the rocky material from the demolition of the front of the mine, arranged in layers 10 m wide, appropriately spread and compacted, protecting the existing sand walls caused by the growth of the tailing deposits from the treatment plant, in such a way as the whole is resistant and stable in the long term.

Eptisa services consist of the project and execution management and coordination of health and safety that includes control of terms, quality and costs, management of contracting and subcontracting works and most important, technical advice to the owner.



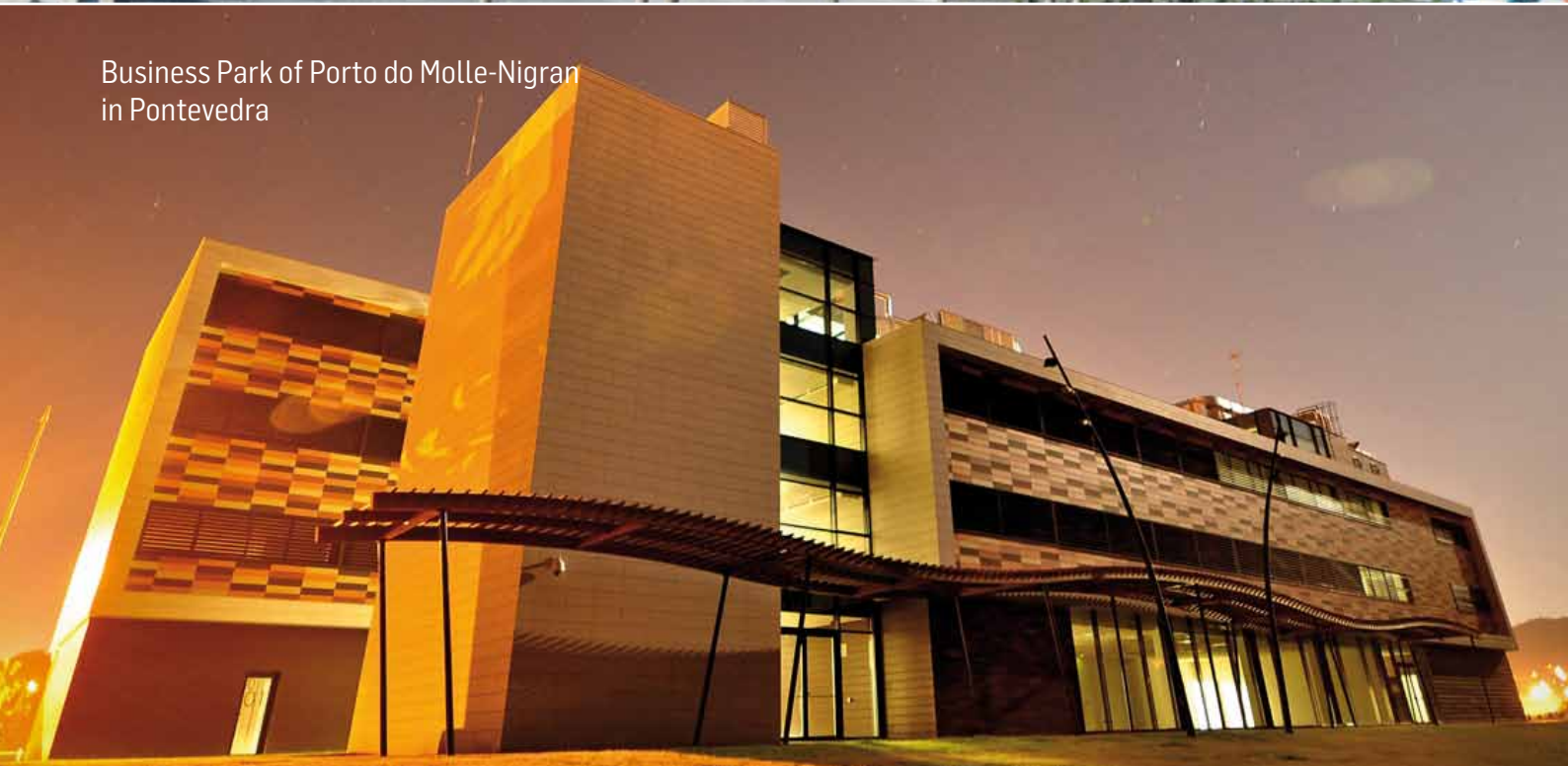
Shopping area of Madrid-Barajas Airport



Sports Complex Pando Aisia in Portugalete, Bizkaia



City of Justice of Zaragoza



Business Park of Porto do Molle-Nigran in Pontevedra

Building, Energy and Industry



In 2012, building activity in Eptisa has adapted to the needs of the national market, expanding our engineering and architecture services, to the integrated management of construction projects. This completes the cycle, including the turnkey projects to a fixed price. Therefore we take total responsibility for the construction process.

At Eptisa we foster a model of sustainability through energy efficiency and the use of renewable energy sources. To that end we offer our clients services that focused on energy savings and energy efficiency in their facilities. Looking for technical solutions to make buildings self-sufficient with renewable energy generators or proposing installation improvements to save electricity, have been some of our main activities.

In the **Industrial Sector** we have continued with engineering and architecture projects, especially for the aeronautical and automotive industries. For example, the project for *Renault* for the enlargement of the welding plant in *Palencia*. The work consists of extending the plant by 5,186 m² and the installation and foundation equipment for the processing machinery. In the aeronautical industry, we work for *Airbus* with an engineering services contract for the reorganization of land parcels in the *EADS* plant in *Illescas*, in the region of *Toledo*.

In *Galicia* we provide technical assistance and quality control of the construction works of two buildings. One building to be used as a service centre and for entrepreneurial initiatives, and the other building to be used for offices. The buildings

will be located in the plots P-20.1 y P-20.2, in the business park of *Porto Do Molle-Nigran* in *Pontevedra*.

Also in *Galicia* we have carried out geotechnical studies of plots in the office park of *A Coruña* for future buildings construction.

In the field of **Singular Buildings**, in 2012 we developed the integrated management of the construction project of the *Cultural Centre at the old Tabacalera* for the International Center for Contemporary Culture in the city of *San Sebastian*.

In *Madrid*, we work on the project management of the reforms works and construction of the new classroom building for the British Council sited in the centric street of *Martinez Campos*.



◀ ENGINEERING SERVICES FOR THE REORGANIZATION OF LAND PARCELS IN THE EADS PLANT IN ILLESCAS, TOLEDO

The work consisted of the specific modification of the Municipal Management Plan with drawing up the document for the modification of the current urban planning regulations. Eptisa's services included the development of the initial document to start the procedure and submission in the different government bodies that should publish the report (Environment, Industry and Heritage), the drawing up the final document of the MMP's modification with its corresponding legal-urban information concerning the planned work, as well as the design of the urbanization project of the affected area. This project included the modification and relocation of the affected infrastructures: water supply, sewerage, electricity, etc. Finally, Eptisa has carried out the project management that includes the assumption of legal and technical works.



In the field related to **Public Service buildings**, Eptisa is working in the construction management for the re-conversion of the buildings *Actur 1 to 5* and *Ebro 1* which housed international pavilions in the *Expo Zaragoza 2008* International Exhibition, for use as the *City of Justice of Zaragoza*.

And in Catalonia we are working on the integrated management of the construction of the new headquarters of the courthouse of Girona.

Also, in the Basque Country, we participated on the construction of the sports complex *PANDO AISIA* in *Portugalete* in *Bizkaia*, with latest facilities to house a range variety of sport activities. The works carried out (in collaboration with the architect *Fernando Andrés*), consisted of project implementation, construction management, and project management.

Eptisa also took part in 2012 in two important projects in the adaptation and construction of **Urban Spaces** in the city of Barcelona.

The first was the integrated works supervision and architectural management services for the *Illa Guinardó* project. This project includes the construction of a primary health care centre, a day centre, a home for the elderly, a nursery, parking space, a municipal marketplace, a retail centre, and 44 homes, among others, the urban development, all in an area of 25,922 m².

The second was the consultancy and technical assistance services to

the property in the development of the urban infrastructure plan of the neighborhood of *Poblenou* in Barcelona.

In **field of R+D**, Eptisa is working on the construction of a building for an experimental infrastructure for smart electrical grids in the *Bizkaia* Technology Park in *Zamudio* for the *Tecnalia Research & Innovation Foundation*. The developed activities involve urban planning, drawing up of the basic, execution and activity projects, construction management and project management.

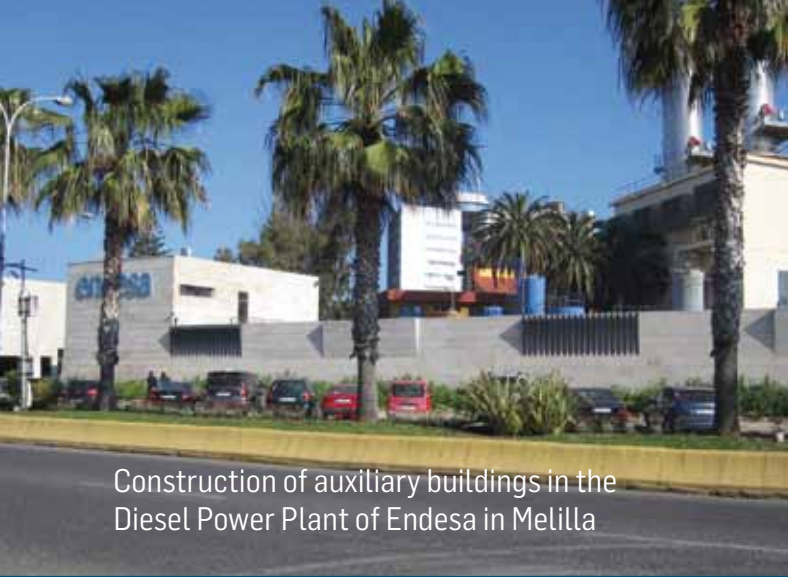
Regarding the building of **Shopping Centers**, we are working on the development and improvement of the shops area of the terminals T4 and T4S of the Madrid-Barajas airport.

In the **Energy** sector, we provide engineering services for the development of alternative energy sources and energy efficiency.

For the company Endesa we have developed the design for the construction of auxiliary buildings in the *Diesel Power Plant in Melilla*. The auxiliary buildings in the Diesel Power Plant of Melilla consist of the warehouse, waste storehouse, and workspaces for welding, cleaning, mechanical, etc. The total constructed area is of 1.600 m².

Enlargement works of the welding plant of Renault in Palencia





Construction of auxiliary buildings in the Diesel Power Plant of Endesa in Melilla



Quality control of construction materials for the Gas Tank in Zierbena

Throughout 2012 we have worked in the supervision of the civil works in the decommissioning and dismantling of the *Nuclear Power Plant José Cabrera in Zorita*. Towards the end of the year, Enresa awarded us the contract to provide technical assistance to the technical office in the decommissioning and dismantling of the power plant.

We conclude on our services for **Quality Control** in buildings. Eptisa has worked on the control of construction materials for Tank III in the *Regasification plant BBG in Zierbena*. The usual tasks were carried out in laboratories for quality control of construction materials: presses, radioactive isotope equipment for determining density and humidity,

direct cutting equipment, edometers, plucometer, viscometer, point loading equipment, load testing equipment, load with plate.



◀ CONSTRUCTION MANAGEMENT OF THE CULTURAL CENTRE AT THE OLD TABACALERA IN SAN SEBASTIAN-DONOSTIA

The work consists of the architectural renovation to transform the old tobacco factory in *San Sebastián* into a Contemporary International Cultural Center, under the "TABACALERA" name. The spaces will be structured around five functions: production, exhibition, discussing, training, archiving and diffusion. The architectural proposal develops the functional program in an area of approximately 38.000m².

The main actions on the existing building are: underpinning of the foundations, opening of the basement towards the communication axis between the *Ensanche* and *Egia* streets, construction of a new plant under cover and creating a new area made of glass and steel that rises above the central part of the building. The final budget is of 56 million Euros and the objective is that the opening of the building will be in June 2015.



◀ PROJECT MANAGEMENT FOR THE REFORM AND CONSTRUCTION OF THE NEW CLASSROOMS BUILDING FOR THE BRITISH COUNCIL IN MADRID

The British Council teaching centre has awarded Eptisa the second phase of the construction of the new building for teaching adults in the centric street of General Martínez Campos 31 in Madrid. Eptisa, as Project Manager, also took part in the first phase of the project, in which the old building from the 50's was demolished, while keeping the nineteenth century palace which is in the same building plot, with difficult access through an arc of the same palace.

During the second phase, which will last 12 months, Eptisa is responsible for the supervision of the basic and construction project of the new building designed by the *RFA Architects*, management, coordination and control of the construction works, and management of deadlines and costs, as well as managing the tendering and contracting as well as the quality control.



▲ CONSTRUCTION OF A BUILDING FOR EXPERIMENTAL INFRASTRUCTURE FOR SMART ELECTRICAL GRIDS IN THE BIZKAIA TECHNOLOGY PARK IN ZAMUDIO

The *Tecnalia Research & Innovation Foundation* has promoted the construction in the Bizkaia Technology Park the experimental infrastructure building for smart electrical grids with the objective to become an international reference in this field. The building will mainly work in research R+D+I, as well as electrical testing.

The developed activities involved urban planning, basic design, implementation of the project and construction management and project management.



▲ CONSTRUCTION OF THE SPORTS COMPLEX PANDO AISIA IN PORTUGALETE, BIZKAIA

Construction of a sports centre with the latest facilities, that houses a variety of sports activities. There are several rooms for fitness, among which is the biggest one, which has a quadrilateral ring shape around a central garden area, that has more than 60 cardio machines: treadmills, elliptical bikes, rowing machines, step machines, etc. Another of the rooms has a climbing rock with a campus board and a multifold training wall.

We have also created a complete water centre with different facilities: hot water pool, cold water pool, Jacuzzis, bubble beds, Turkish bath chromo therapy, sauna, thermal showers, sequential, large flow, mist spray, rehabilitation shower, ice fountain, heater lounge room, etc.

The work done, in collaboration with architect *Fernando Andrés*, has included execution design, construction management and project management.



◀ CONSTRUCTION MANAGEMENT OF THE NEW COURTHOUSE OF GIRONA

It is a new building that will house the Judicial Court of the city of *Girona*. It has a ground floor and five floors to house the courts and offices, and two underground floors for parking and archives. Eptisa is responsible for the integrated management of the works that includes: control of the design, project and construction management, architectural management, and quality control and environmental quality control of the works.



◀ DEVELOPMENT AND IMPROVEMENT OF THE SHOPPING AREA IN THE T4 AND T4S TERMINALS OF MADRID BARAJAS AIRPORT

The aim of the project is the development and improvement of the shopping area in T4 and T4S terminals and the remodeling and enlargement of the commercial areas as well as all the auxiliary facilities, including the demolition of existing areas and the building of the new ones. The project guarantees the implementation of the work while maintaining the full functionality of both terminals 24 hours a day. The estimated work is of about 23,500 m2, of which 7,000 m2 are of new construction and the rest to be redistributed.

The new commercial areas will be designed keeping to the following design criteria: directing the passenger flow towards the commercial areas, increased visual impact of the commercial offer, minimize the effects of construction on commercial operations, the functionality of passenger flows, the possibility of future expansion, adapting to the environment (climate, materials etc.) efficiency in the design and execution of the work and energy efficiency in the building's operating costs.



▲ DESIGN AND IMPLEMENTATION OF A PATHOLOGY PREVENTION WARNING SYSTEM AND A MAINTENANCE MANAGEMENT SYSTEM IN WIND TURBINES

Over recent years wind energy has been developed throughout the world. The need to take maximum advantage of each area of generation has required the installation of wind turbines of up to 6mw, and of a height of up to 100 meters. This size requires an increasingly demanding structural design, both in the foundations and in the mast of the wind turbine. Over recent years pathologies have arisen in these types of foundations, with the advent of severe damage and the corresponding economic loss.

In Eptisa we have designed and implemented a system that makes it possible to control these pathologies, prevent their development, place points of alarm and/or repair as well as minimize the costs of repair and maintenance. The system is versatile and can be adapted to the study and control of different pathologies, as the case may be.

The main tools of the system are as follows: static and dynamic data collection systems (individual for each generator), centralized management system in the control center (with control software designed by SAYTL DINAMYC) and a web based SCADA system for the visualization of data and information management.



▲ CONSULTANCY AND TECHNICAL ASSISTANCE SERVICES FOR THE DEVELOPMENT PLAN OF URBAN INFRASTRUCTURE OF THE POBLENOU NEIGHBOURHOOD IN BARCELONA

The project involves providing technical assistance services to the property, *22@Barcelona*, to monitor the implementation of the urban infrastructure plan of the *Poblenou* neighborhood. The total developed area is of 703,997m² and the process of urbanization includes the replacement of more than 37km of street pavement, a new network of lighting and traffic lights, the installation of new telecommunication and electricity networks, the renovation and enlargement of gas and water supply systems, installation of a urban solid waste collection system, installation of centralized air conditioning system, the renewal of damaged trees, the renovation of the sewage system, the construction of new cross passages, and new horizontal and vertical signage.

Eptisa has carried out the financial monitoring and supervision of all the projects and construction works of urbanization, parks and gardens, the planning of deadlines and execution and works, updating and improvement of tender documents, the development and updating of plans and reports, preparation of comparative technical/economic studies of different technical solutions, the relationship with private developers in relation to the fulfillment of the plan and the monitoring of agreements with service companies (Fecsa, Agbar, Gas Natural, Telefónica).



◀ TECHNICAL ASSISTANCE FOR THE PROJECT OF DISMANTLING AND CLOSURE OF THE NUCLEAR POWER PLANT JOSÉ CABRERA IN GUADALAJARA

The nuclear power plant José Cabrera is located in the town of Almonacid de Zorita in Guadalajara province and was commissioned in 1968 with an electrical output of 160 MWe. Eptisa has worked since 2011 in the supervision of the civil works of the dismantling works including following tasks: planning, control and supervision of the works, as well as the technical monitoring of contractors.

In this new contract and under the direct supervision of ENRESA and framed in the Technical Office Service, the actions to develop are: Reporting (monthly report on the activities of dismantling and closure of the José Cabrera Nuclear Power Plant project); cost control (control of work certifications); planning (updating the work program issuing specific programs, detailed monitoring of contractors); and in relation to technical documentation: Control of technical information (procedures, reports, etc.) issued by contractors, coordination and monthly monitoring with the different contractors, control of delivery of previous documentation and support of contractor implementation, control of work permits (SAT), update of MSD's (Management System of Dismantling), updating of PMS (Project Management System).



Information Technology



This sector is suffering a slow-down of the traditional IT projects: hardware, software and services, and it is expanding towards new technologies, such as those regarding mobility (devices, applications, and services), cloud computing, and social networks. Trends are changing the environment and Eptisa is focusing on the diversification of both products and services, to successfully meet the needs of the new generation.

Digital economy has become the new business strategy and it is helping the IT sector to find its way out of the crisis. Digital content and software as a service (SaaS) is providing clients with an excellent opportunity to access to services and information in a simple, effective and affordable way.

In 2012, we have further strengthened our position in the international market participating in several projects in countries such as India, Georgia, Peru and Costa Rica.

Geographic Information Systems

Proud of a twenty-year presence in the market, *Esri Spain* keeps working to spread the use of GIS technology in our society. The great success of the *ArcGIS version 10* is due to an improved experience for users and a more comprehensive functionality for the creation of mobile applications. It also enables the use of GIS in the cloud: Cloud SIG.

For another year, the *Esri User Conference* has been a major success. It is the major GIS event in Spain

with 2,100 people attending. The participants showed interest in the applications, case studies and GIS developments of Environment, Safety & Emergency, and Transport sectors.

We have developed a program of technical seminars, both online and face to face, for our clients and partners, so that they can be updated in products news and technical innovation.

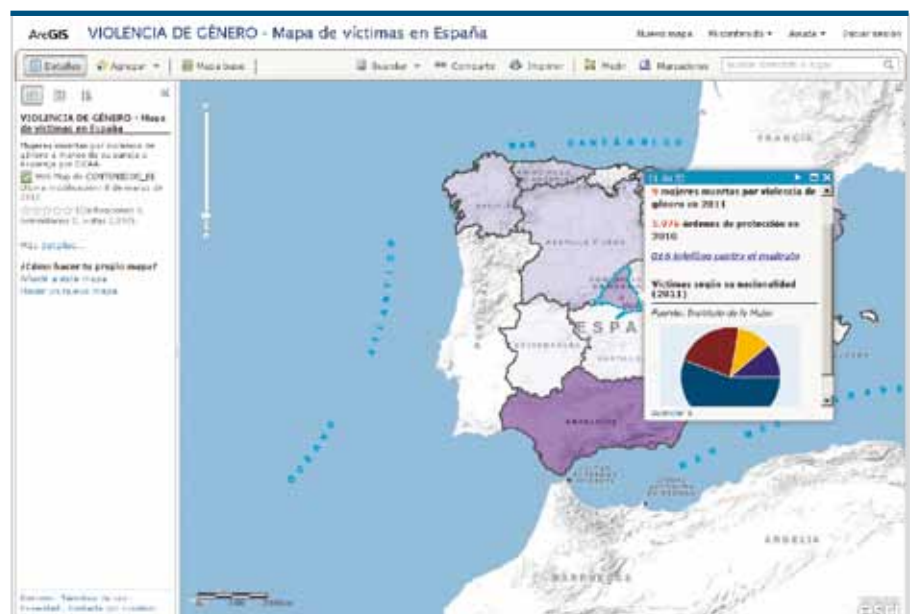
For the second consecutive year, the marketing department of *Esri Spain* has been awarded the Global Alignment Award, granted by our technology partner *Esri Inc.* This award recognises the work undertaken by the department to develop marketing and communication campaigns, strengthening the presence of Esri's products in Spain and developing successful marketing strategies. It also recognises the innovation

applied in the campaigns thanks to the integration of the media and social networks.

Regarding the **contents** field, *Esri Spain* has showed throughout 2012 the scope and the communication ability of *Social Maps*. Through new web applications such as *mujerymapas.com*, *aguaymapas.com* and *Geoporra*, all developed using ArcGIS Online, we have brought the GIS to the citizens, making it no longer limited to the technical environment. As for the *Geoporra* application, we have successfully created a collaborative environment.

Mujerymapas.com uses statistical data to create a map showing the situation of women in Spain and Europe in terms of employment, domestic violence, work-life balan-

Mujerymapas.com



ce, access to higher education, and presence in high-positions in the public work environment. Additionally, it provides temporary data for the users to see their evolution throughout the latest years. *Mujerymapas.com* is based on statistical data provided by several institutions, such as the Women's Institute (*Instituto de la Mujer*), the Spanish Statistical Office (*Instituto Nacional de Estadística*), Eurostat, the European Union, the Spanish Department for Education, Culture Media & Sport (*Ministerio de Educación, Cultura y Deporte*) and the General Council of the Judiciary (*Consejo General de Poder Judicial*). Esri aims to offer a platform providing a rapid access to all the information concerning the situation of women, using maps for the visualisation and achieve a better understanding of today's scenario. This platform also allows users to create and share maps using their own data.

Geoporra.com is the *Copa del Rey* (football tourney) map, an interactive map that is available to all followers of the competition and allows them to vote for their favourite team. *Esri Spain* is using its own technology to create a collaborative application where all the votes can be stored in a database, as well as displayed in an interactive, dynamic and social map. This map uses a colour code (red for the Athletic de

Bilbao, blue for the F.C. Barcelona, and green for draws, if any). It also shows the areas where teams are supported the most, as well as the distribution of users' bets.

During 2012, *Esri Spain* showed their support to the open data initiative and fostered the public access to the data. To this end, he presented *www.Comunidadesig.com*, a platform where any user can have free access to the most important geographical and cartographic contents from Spain, as well as use them to create their own GIS applications. With this initiative, Esri Spain takes position in favour of the open data and gives its support to the public access to the contents in order to enrich them and reuse them by the user community. In 2012, Esri Spain took part in the *www.datos.gob.es*, a web platform of the Government with aim of publish and manage public information from the General Administration of the State and the content provided by private entities.

Another collaborative initiative was held on the occasion of the day of Internet. Esri launched *Internetymapas.com*, a platform in which users can find and use the best and most relevant GIS applications that have been developed in different areas.

In 2012, *Esri Spain Training Servi-*

ces, conducted the third and fourth edition of the Master GIS. The Master provides students with the necessary skills to become experts in GIS technology, which has allowed them to entry into the labour market both nationally and internationally. Currently, the Master is a reference in the sector for our partners and customers. Likewise, face-to-face and online courses through the *AularcGIS* online platform, enable our users to be updated on the latest developments of the product and improve their productivity.

In the **Public Sector** we have worked in the maintenance of existing projects and applications. New applications and projects have slowed down, but even so, it remains our principal market. Corporate license and services agreements that allow access to software and services at a fixed price will help to keep our users loyal and the existing applications updated.

In 2012, in the field of **Emergency and Public Safety**, we are working for the main security and emergency institutions of the central, regional and local public administration, in the maintenance and updating of the geographic information systems.

As a result of our experience in GIS applications for public safety, we

◀ **SUPPORT AND MAINTENANCE OF GSA-BASED CORPORATE SEARCH ENGINE OF BBVA**

The activities consist of the maintenance of the horizontal search service provided by the Google Search Appliance platform for BBVA, used for both internet and intranet searches. High-availability architecture has been developed in both environments for the system's implementation. Mirroring configuration has been applied to hardware and index connectors, making it possible to provide results in less than one second for each query and environment, retrieving the same results for repeated queries.

have developed a solution which integrates the functionality and content in order to save costs and implementation time to our clients. The application provides the necessary technological tools for the prevention and analysis of crime.

For the **Logistics** sector, we are working on the Phase II of the development and implementation of the Corporate Geographic Information System for the Spanish Post Company *Correos*. The GIS is a corporate georeferenced data repository, and provides tools for the location of offices, centres of distribution and the concentration of services, both in rural and urban. Also helps in the decision-making of the design and analysis of routes. In addition, it includes the functionality for the visualization and management of infrastructure data from the Telco company *Correos Telecom*.

In the **Water** sector, we continue working for the main Water Companies in Spain. The experience gained in the projects for *Canal de Isabel II* (the Water Company of Madrid), *Txingudi*, etc., has supported the internationalization of our services in the design and implementation of solutions for the water infrastructures management in the countries of Georgia and Peru. In the region of Madrid, *Canal de Isabel II* entrusted us the maintenance of all GIS and mobility applications for the next two years.

In the **International Market**, also in this sector, we work in Georgia in the project for the design, development and implementation of a Geospatial Urban Management System for the water supply and sanitation network in several cities. Recently in Peru, we were awarded the contract for the development of an Integrated Geographic Information System for the Drinking Water and Sewerage Service of Lima (SEDAPAL). The project will last 16 months.

Also for the water sector, but this time for the management of water resources, we are working in India

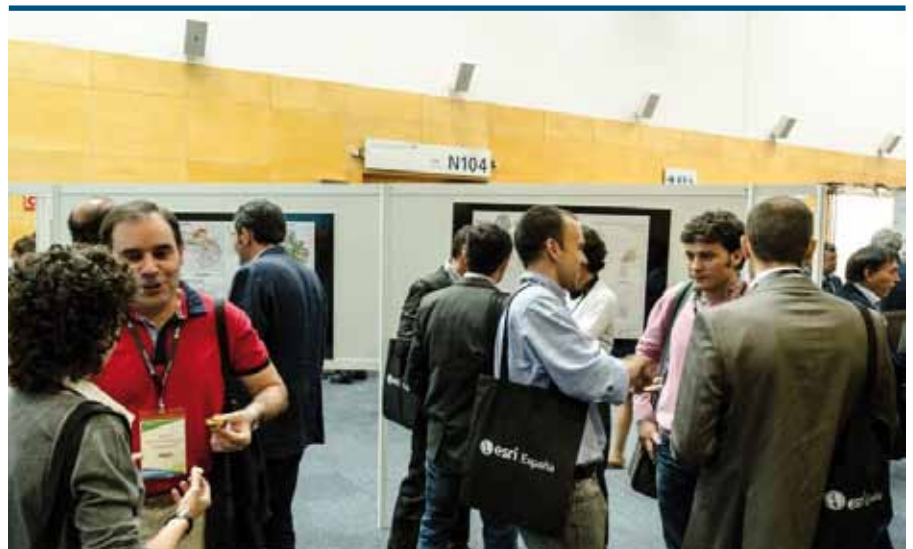
in the supply, installation and commissioning of the e-SWIS (Surface Water Information System). It's a new system based on Web environment for the efficient dissemination and processing of geographical and hydrological data that allows, among other functions, support of Flood Warning functions.

In Costa Rica, we collaborate in the development and implementation of the GIS functionality in the project of the Real State Registry Information System (SIRI), funded by the Inter-American Development Bank.

IT SOLUTIONS: ENTERPRISE SEARCH AND CONTENT MANAGEMENT SYSTEMS

Eptisa, as the only Partner Premier of Google Search in Spain, has the most experience in the development of projects in the business solution of Google Search Appliance, and has worked for companies such as Real Madrid, the General Directorate of Traffic, and Nuclear Power Plants of *Almaraz and Trillo*. In 2012 we worked in the support and maintenance of the Google Search Appliance platform for *BBVA*.

ESRI User Conference



The result of the collaboration with Google, we developed a solution for promoting Google Apps technology-based products. The solution enables the user to access to e-mail, search tools and business management application at an affordable price for small and medium sized companies. Eptisa adapts these solutions tailored to the company requirements and their needs, regardless of their size, and providing added value services.

R&D

In Eptisa we have made an investment in technological R&D with the aim of developing vertical solutions and improve existing ones. This effort boosts us at the ahead of the latest technological breakthroughs and keeps our position in the market.

We are in a highly competitive and constantly changing environment, which requires adapting IT services to the new trends of the digital eco-

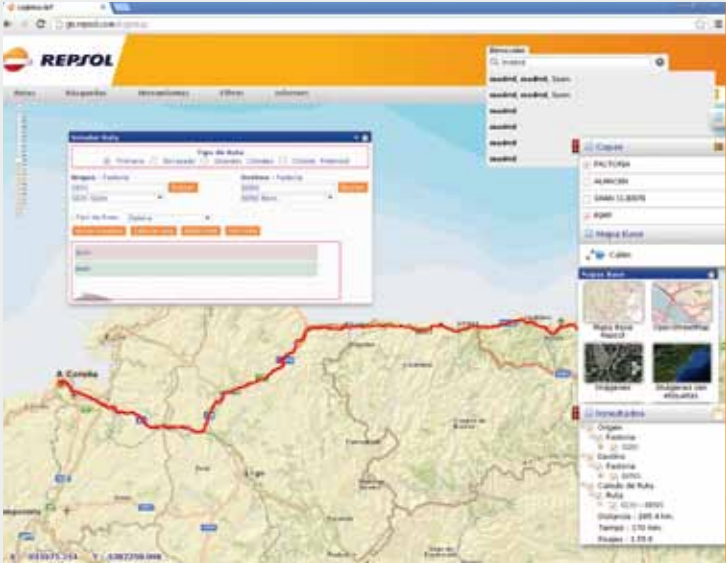
nomy and specialized vertical applications.

The fierce competition in the technologies sector requires proposing projects of R&D with a multidisciplinary approach, involving and coordinating activities of various areas of the company. As a result of this, in the year 2012 and in coordination with the engineering activity of Eptisa, we have launched ROMA (Road Management System), the most comprehensive technological solution for the treatment and professional management of the information concerning linear infrastructures, due to its advanced visualisation, editing, consulting, management, and information analysis capabilities.

In the year 2012, we initiated the design for the water sector of a solution for the management of water supply and sewerage systems.

As a consequence of the good results in the activity, Eptisa continues

to promote the information technology activity in the domestic market and boosts the internationalization of our Know How.



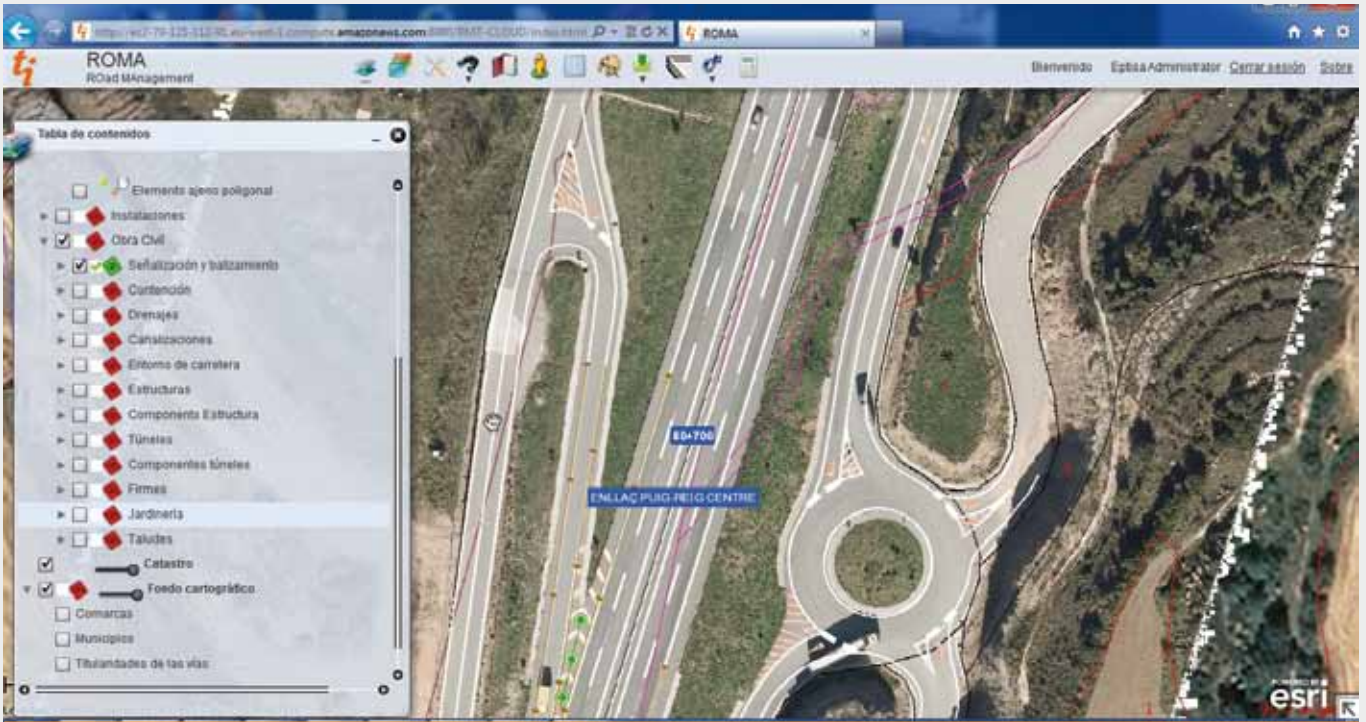
◀ **MIGRATION AND MAINTENANCE OF REPSOL'S GIS APPLICATIONS**

The purpose of this project is the migration of Repsol's GIS applications from a proprietary platform to a new corporate platform based on Esri's ArcGIS technology, as well as its subsequent maintenance.

The services provided by Eptisa include: software requirements specifications, analysis, design, development and installation of the GIS applications to be migrated to the new platform.

In order to facilitate the migration of the application to the new platform, we have designed a web Viewer with the functionality to be migrated:

- Routing according to different criteria (distances and toll rates), taking into consideration the regulations concerning the transport of hazardous materials
- Address search (Street Map Search) and Kilometre Point search
- Consult of corporate geographic information: service stations, depots and exploratory drilling sites, among others.
- Editing entities

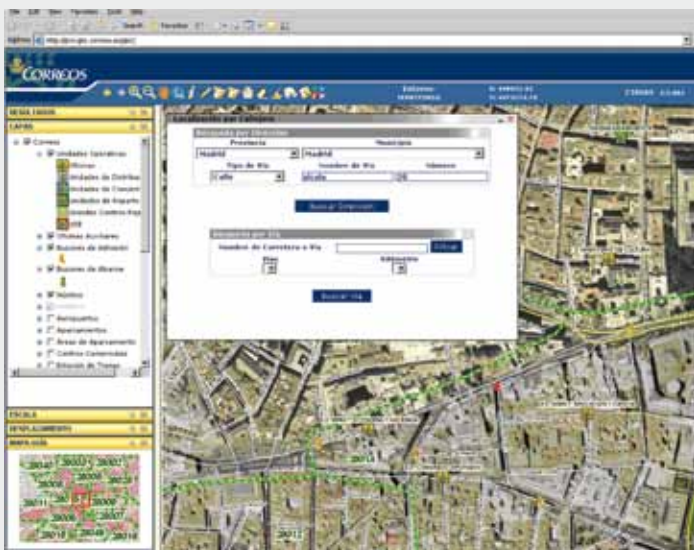


▲ ROMA (ROAD MANAGEMENT SYSTEM): TECHNOLOGY SOLUTION FOR ASSET AND MAINTENANCE MANAGEMENT OF ROADS

ROMA is the most comprehensive technological solution for the treatment and professional management of the information concerning linear infrastructures, due to its advanced visualisation, editing, consulting, management, and information analysis capabilities. RMS is based on ESRI GIS technology and Web environment, adapted to integrate with systems of the organization or be consumed through pay per use (SaaS). Geographic Information Systems (GIS) are the most appropriate technology platforms due to the spatial component, for the treatment, management and visualization of road assets

RMS users have at their disposal a set of tools that allows them to perform asset management, preventive and corrective maintenance of the infrastructure and its elements.

- Asset Inventory: meet the characteristics of the elements and their exact geographic location
- Events Inventory: accidents, attention to winter maintenance, use and defense actions
- Conservation: ability to control and plan both regularly scheduled activities and the immediate intervention incidents
- Pavement Management: Scheduling conservation action in the firm optimizing costs and maximizing profits



◀ GIS II – CORREOS CORPORATE GEOGRAPHIC INFORMATION SYSTEM (PHASE II)

The GIS is a corporate georeferenced data repository, and provides tools for the location of offices, centres of distribution and the concentration of services, both in rural and urban. Also helps in the decision-making of the design and analysis of routes. In addition, it includes the functionality for the visualization and management of infrastructure data from the Telco Company *Correos Telecom*.

The new functionalities include: migration of the system to ArcGIS Server version 9.3.1; visualisation, access, and analysis of the Sales and Marketing Management Committees; visualisation, management, access, and analysis of the Management Committee for Operations in the Urban Mail Area; the development of both the Rural Mail Module and the transport module; and visualisation, access, and analysis of the Management Committee for Planning and Finance.



Health



Casta Salud reinforces its R&D

Consolidated as the first private company in mental health and psycho geriatric services sector in Spain, Casta Salud is currently managing three own centres with an offer of 1,000 beds.

During 2012 the goals marked for the centres of Asturias, Guadarrama and Arévalo have been achieved, thanks to obtaining the predicted public administration contracts and the private places. We have also achieved the objectives in the rest of the areas of activity of Casta Salud, with health projects for the public administration and the Pharmacy Unit.

The **Residential Management** model of Casta Salud is supported by a highly-motivated professional team and a high degree of commitment to achieving objectives. We also take advantage of the synergies deriving from the collaboration with Universities and Foundation – such as the *Universidad Pontificia of Salamanca*, the *Universidad Autonoma and Complutense of Madrid*, as well as the *Tejerina Foundation* – through signing collaboration agreements for work training experience at undergraduate and postgraduate levels in disciplines such as Psychology, Occupational Therapy, Speech Therapy, or Nutrition and Dietetics. Lastly, there is the conducting of studies and

reports from the health activities of the various units.

In 2012 Casta Salud has consolidated its position in the line of activity for public health projects, carrying out consultancy services to develop the **Basic Services Portfolio on Drugs-dependency** for the National Plan on Drugs. This report wants to define in a structured way a strategic line of the offer for treatment programs and public health care resources adapted to the specificity of different municipalities and drug-dependency profiles.

This is a project born from the Casta Salud experience in the drug-dependency field thanks to the work developed by the Pharmacy Unit in the *Methadone* project since 2009 in Madrid.

RESIDENTIAL MANAGEMENT

RESIDENCIAS NOSTEM

In the Arrigorriaga and Balmaseda centres, both in the Basque Country, we are responsible for the management of 372 beds. During 2012, we consolidated the agreements with the public government *BIDEAK*, which involved 90% of the total occupancy capacity in both centres.

In Arrigorriaga, both public funded and private places are all full occupied, while the day-care places have around 90% occupancy.

In Balmaseda 100% of public funded residential places are occupied, as well as the day-care places.

CASTA ASTURIAS-LANGREO

During 2012 we achieved the objectives planned and the R+D project based on robotics, which started in 2011, has become a success in the therapeutic treatment of people with mental illness. This has turned Casta Salud into the first company in the sector who applies innovation in this type of pathologies.

Thanks to the contracts signed with the public administration, at the close of the financial year, we had 70% occupation of the residence in Asturias. The number of places sold during the financial year enabled us to begin 2013 with the centre's occupancy level at 75%. Now, in addition to maintaining the agreement with *ERA*, the public institution for Residential Homes for the Elderly of Asturias, we have signed a Framework Agreement with the Social Welfare Council, which will enable us to increase the number of places contracted with them.

As a result of the professional's work of our centre, we have achieved to set a new robotics-based therapy for the first time in Spain: **Nuka Project**. It has the aim of applying the new technologies in the treatment of people with mental illness. Nuka is a robot modelled after a baby harp seal, with five sensors that respond to the human senses. Three of these react to light; touch and sound, with the purpose of stimulate the senses of sight, touch and hearing respectively. The other two respond to learning – through punishment and reward methods – and in the field



Casta Arevalo



Casta Asturias-Langreo

of behaviour through imitation mechanisms. Working with the robot in therapy takes place in the area of cognitive stimulation with simulation exercises and emotional resources.

After finalizing the project and analysing the results, it states that the interaction with the therapeutic robot produces a stimulating effect to the 100% of the patients that were target of the project. All patients that belong to the group characterized by the presence of important states of excitement have improved in their cognitive performance and in the attention capacity due to continuous stimulation and the reduction of the states of excitement.

Nevertheless, the real success of the project is connected to the improvement of emotional states and communicative capacity (especially in affective aspects), producing a clear improvement in 100% of the participants.

CASTA GUADARRAMA

Despite the current economic situation, which is having serious effects caused by the reduction in public administration budgets for this type of places, and thanks to the enormous commercial efforts made, the current occupation is 72%. This means a total of 116 occupied places at the close of the financial year.

In 2012 we renewed the collaboration agreements with the following public and private organisations:

- **AMTA:** The Madrid Agency for Adult Guardianship
- **SESCAM:** Castilla La Mancha Health Service

- **Foundations:** *Fundación Madrid, Fundación Familia, Fundación Madre, Fundación Manantial*
- **ADESLAS:** Insurance company

Moreover, during 2012 we signed new collaboration agreements with the following private entities: *CIGNA* and *DIOLA*.

CASTA AREVALO

The Arevalo Centre, in Avila, has kept its occupancy rate at over 90% throughout the entire year. It has also renewed its agreements with the public administration and insurance companies. It has also signed new collaboration agreements with the organisations: *CIGNA* and *DIO-LA*.

The collaboration with the Universities of Castilla y Leon has led to training programmes in Psychology, Occupational Therapy, Physiotherapy and Speech Therapy. Likewise, there is the possibility of grants for specialised courses and master's degrees.

PHARMACY UNIT

From 2010 we develop the contract for **Managing the Supply Programme of Methadone Hydrochloride**, by which Casta Salud manages the production, preparation and dispensing of this substance for the Drug-Dependency Care Centres from the Dependency Institute of Madrid. Thanks to our quality work, the governing body of the Madrid Council has approved the extension of this project until the end of 2013. Within the project scope our team has the responsibility to manage the Drug-Dependency Care Centres for establishing the quality assurance standards to apply for their daily operations.

PUBLIC HEALTH PROJECTS



Casta Guadarrama

Key data for this year are as follows:

INDICATOR	RESULT	
TOTAL EXPENDITURE OF METHADONE IN GRAMMES/LITRES.	28.582 gr. / 2.858 litres	
TOTAL OF METHADONE BOUGHT AND MANAGED (KG.	30	
NUMBER OF DOSES ADMINISTERED.	531.536	
NUMBER OF METHADONE BOTTLES ORDERED.	346.500	
METASEDÍN PILLS 5 MG.	18.470	48.022
METASEDÍN PILLS 30 MG.	13.465	
METASEDÍN PILLS 40 MG.	16.087	
APHONE ASSISTANCE / DAY.	35	
REPORTS PRODUCED (QUARTERLY / BIANNUALLY / MONTHLY).	4/2/12	
NUMBER OF VISITS BY PHARMACISTS TO CENTRES.	310	
NUMBER OF METHADONE DISTRIBUTIONS.	898	

From Casta Salud, we have backed on the need of renew and promote the activities of the Pharmacy Units or Services, to make them consistent with the present time in drug-dependency matter, under an integrated model and complying with the objectives of effectiveness and efficiency. Under this line of **quality improvement**, we have worked to update the protocols, obtaining the ISO 9001 Certification for the *Production and Dispensing of Methadone Hydrochloride* to the different devices, which guarantee the traceability of the process, among other things.

In the field of **Research**, the Pharmacy Unit will carry out a research project titled *New applications of the study of Biomarkers to improve the clinical management of opium-dependency patients or with psychiatric disorder* with the financial support of the Centre for the Development of Industrial Technology (CDTI) dependent on the Spanish Ministry of Industry. It has two clear purposes, both aimed at personalized medicine. The first one, framed in the field of the opium-dependency patients in treatment with substitu-

tion (methadone), pretends to go in depth in those metabolic aspects that influence the prescription of the appropriate dose and their effect in the patient, with the aim of providing the objective tools to the doctor for decision making, and optimizing the treatments.

And the second one pretends to go in depth in the study of the metabolic aspects of the patients with psychiatric disorder, which will result in an optimization of the therapeutic doses that can contribute, not only to a better medication management regarding to economical terms, so present today, but to a reduction of the possible interactions and secondary effects in these patients due to their high level of medication.

This project is the result of the line of research activity that started some years ago from the Pharmacy Unit, with the publication of two scientific publications under the collection *University Teaching (Fundación Tejerina)* and in the series *Biomedical Sciences*. The first of these publications carries out a review of the theoretical bases of the methadone as a substance for the treatment of

opiate substitutes, its pharmacology, its origins, etc. Regarding the second publication, of a more technical nature, carries out a review about the significance of the metabolic system of the Cytochrome System P450, basic to understand the metabolism of most of medicines, as an example, the importance of these cytochromes in the metabolism of some antipsychotic drugs.

SPECIALIZED CONSULTANCY

The National Plan on Drugs has trusted in Casta Salud to develop the study *Basic Services Portfolio on Drugs-dependency*. The objective of this study is to develop a portfolio of services duly structured, supported by scientific evidence and valued according to homogeneous parameters with the rest of resources. In this way, it is expected carrying out the theoretical development of the portfolio throughout the definition of diverse itineraries but representative of general and specific profiles more commons in matters of drug-dependencies, including which will be the average expected use of the different resources for these itineraries.

TRAINING

Continuous training and the development of improvement plans for our team of professionals is one of our main priorities. It is also one of the values that have positioned Casta as the largest private company in the mental health sector.

Finally, in the 180 hours course *Quality Management for sanitary products and services* held in Madrid from October to November, participated professionals from Casta.

And in the course on *Advances in addictions for professionals of the Biopsychosanitary field* organized by the Anti-drugs Agency participated professionals from the Pharmacy Unit.

GRANTS

The collaboration between Casta Salud and the University comes from the social responsibility of the company towards the society in the improvement of the students training and support their integration into the job market.

In March 2012, Casta Arevalo signed a training collaboration agreement with the Catholic University of Ávila to carry out work trainings at nursing grade. At the end of 2012 it also signed a collaboration agreement with the Pontificia University of Salamanca for the development of a new program with the aim of facilitating the work trainings of the unemployed graduates in Psychology.

Casta Asturias has reached a new agreement with the *I.E.S La Quintana* to provide work training for students at Auxiliary Nursing Care. In the same line, Casta Guadarrama has signed it with *Virgen de la Almudena* School in *Collado Villalba*.

Casta Guadarrama has also signed a collaboration agreement with the *Castilla La Mancha* University to carry out postgraduate work trainings in the following specialities: Occupational Therapy, Speech Therapy and Nursing; as well as with the *Complutense* University of Madrid and the Autonomous University of Madrid, in the speciality of Psychology.

During 2012 we have worked for signing the framework agreement of educative cooperation between Casta Guadarrama and the Autonomous University of Madrid for external work trainings (curricular and extracurricular).

The agreements between Casta Salud and the training centres include the following grants, additionally to the training plan:

- Two annual grants for the postgraduate Occupational Therapy programme at the University of Salamanca

Throughout 2012, within the Continuous Training Plan the following courses classified by centre were given:

Casta Guadarrama

COURSE/ TITLE	TRAINING CENTRE	HOURS	PERSONS	TOTAL HOURS
Fundación Manantial Conference	FUNDATION MANANTIAL	4	2	8
Course on Psychological Contention	FEMAREC	20	22	440
Challenges and opportunities for the psychosocial recovery of persons with bipolar disorder	FUNDATION "MUNDO BIPOLAR"	5	3	15
Workplace Risks Prevention Course	FREMAP	1	60	60
XIV International Congress on Dual Pathology	SEPD	12	2	24
Course on Borderline personality disorder	INTERNAL	4	20	80
Course on Convulsive Crisis	INTERNOAL	3	10	30
Course on feeding and dietetic complements	ABBOTT	2	10	20
Universal family-based Prevention Programme of the Anti-drugs Agency	ANTI-DRUGS AGENCY	6	2	12
	9	57	131	689

Casta Arevalo

COURSE	TRAINING CENTRE	DATE	HOURS	DISTANCE HOURS	TOTAL HOURS
Techniques of Communications with dependent persons in residences	SR Consultores	23,24 and 25 of May, 6, 7 and 8 of June	30	20	50
Intervention in Socio-sanitary attention in Institutions	SR Consultores	8,9 October, 5, 6, 29 and 30 November	40	30	70
Technician UNE-EN-ISO 13485 Quality Management System Certification in health products and services		9 of October			
Care of patients with reduced mobility	Fremap	5 December			5
Family and Social Health Care	Salus Mundi	December			80
Clinical and psychological intervention in personality disorders	Salus Mundi	December			80

Casta Asturias

COURSE	TRAINING CENTRE	PERSONS	TOTAL HOURS
Support to the organization of interventions in the institutional field	ASSFA AGRUPACIÓN DE SERVICIOS SOCIALES FORMATIVOS Y ASESORÍA	11	100



Craft workshop



Therapy with animals

- Two annual grants for the post-graduate Psychology programme at the University of Salamanca.
- One annual grant for the post-graduate Speech Therapy programme at the Universidad Pontificia of Salamanca
- Two postgraduate Psychology grants at the Autonomous University of Madrid
- Twelve grants for the Occupational Therapy programme at the Complutense University of Madrid. This year, we have increased the number of persons trained at our centres to ten.
- Two grants in the Nutrition programme at the Complutense University of Madrid

We also took part at the **VII International and Inter-university Seminar on Biomedicine and Human Rights**, held in Madrid on the 22nd and 23rd of November, with the presentation of our posters:

- Pharmaceutical Units for the treatment of getting off drugs. Socio-sanitary aspects.
- Socio-sanitary aspects in the development of the daily practice in the mobile units for methadone dispensing depending on Pharmacy Unit of Casta Salud.



XIV National Congress on Dual Pathology

CONGRESSES AND SCIENTIFIC PAPERS

During 2012 we organised seminars and workshops, in which experts from the sector shared experiences, knowledge and good practices.

In March 2012 we imparted the **classes of legal medicine** as guest teacher for the students of this speciality. Medicine Faculty of the *Complutense* University of Madrid.

We participated at the **XIV National Congress on Dual Pathology**, held in Madrid from 25th to 27th of October, with the presentation of our poster entitled *Our experience in the use of Buprenorfina Naloxona (suboxone)®*.



Carnival in Casta Arevalo





Europe

GREECE

During 2012, and within the contract *E.S.P.E.L. Specialized Consultant for Quality Control*, we continue conducting the auditing and quality control of the works in the projects co-financed with European funds and providing technical institutional assistance to the Administration and the Ministry of Public Works.

As part of this contract, we have carried out the quality control of several projects related to **Transport Infrastructures**. In Thessalonica we have been involved in the works of the extension of the landing runway of the international airport and the metro. In the field of roads, we have worked in the quality control of the works in highways and superstructures of the Greek road network. And in the railway sector, we took part in the construction works of the High-Speed Railway line *Lianikladi-Domokos*.

In the **Energy** sector, we undertook the quality control of the works for the construction of a gas compressor station and a high pressure gas pipeline in the region of *Aliveri*.

In the **Building** sector we collaborated in the works for the construction of the *Agrinio* General Hospital.

Finally, regarding to **Water** sector, he have participated in the project for



Rehabilitation Works in the National Highway Tripoli-Kalamata, Greece

the construction of the drinking water supply system in *Pinios*.

ROMANIA

In 2012 Eptisa extended its activities and resources within the country, strengthening its position on the local market despite the difficulties in the development of all Sectorial Operational Programmes. We have expanded our presence in the country with new projects in *Arges, Harghita and Caras-Severin* counties and we also consolidated our presence in *Valcea*, implementing a second project in the field of water.

Eptisa's core activities in Romania focus on water and wastewater, environmental consultancy and institutio-

nal strengthening sectors, as well as civil constructions, transport infrastructures, solid wastes management and the energy sector. Besides, we continue developing specific activities within these sectors, which include works supervision, project management, design and turnkey projects.

In the **Water** sector, throughout 2012, we have been awarded four new projects which include design, project management and works supervision in *Arges, Harghita, Caras-Severin and Valcea* counties, being the second project for the Regional Water Operator for *Valcea*.

We continue providing technical assistance services in two projects



E.S.P.EL. Specialized Consultant
for Quality Control, Greece

for the same Regional Operator in the *Doj* County. Both projects include design, Project Management and supervision of water and wastewater works. And in the Iasi County, we continue with the technical assistance for the works for extension and rehabilitation of the water and wastewater infrastructures.

The technical assistance for the management of the project *Rehabilitation and development of the drinking water supply and sewerage systems* in *Giurgiu County* was extended until February 2013. This project aims to increase to 100% the water supply and sanitation services provided to the population in the metropolitan areas *Slobozia, Bolintin Vale and Mihailesti*.

In 2012, three projects in the **Water and Wastewater Treatment** sector were successfully implemented.

One of these projects involved the *Technical Assistance and Supervision of ISPA contracts in Craiova*. The project offered assistance to

the Beneficiary in the procurement and management process of the ISPA Craiova Measure and ensured supervision of the works contracts, according to FIDIC conditions of the contract. Eptisa provided support for reinforcement of the Oltenia Water Company management capacity for operation and maintenance, water sampling and programs monitoring, financial management, costs reduction, strengthening the organisation and operation capacity of laboratories.

Other project was the *Works Supervision of ISPA contracts in Timisoara*, in which Eptisa had supervised the rehabilitation of the Waste Water Treatment Plant of Timisoara, with a capacity of 126,000 EP and 28 km of sewerage network.

And the last one is the *Technical Assistance and Supervision of ISPA contracts in Suceava*, aiming to improve treatment system and drinking water distribution and collection of the waste water in Suceava. Eptisa's activities included assistance for ma-

nagement and administration of the ISPA Measure in Suceava

Regarding **Turnkey Projects**, in 2012 Eptisa foresees to implement both contracts on time and according to the expected high quality: *Extension and modernisation of wastewater treatment plant Zimnicea and Wastewater treatment plants in Agnita and Dumbraveni*, thus obtaining references for the company's water sector projects portfolio.

With respect to **Urban Infrastructures**, Eptisa continued with the works supervision for the *Rehabilitation of the District Heating System in Iasi Municipality*, which is implemented according to FIDIC Red and Yellow Book Conditions of Contract.

In **Waste Management** sector, we finished the *Supervision of works for the Integrated Waste Management System in Bistrita Nasaud County*.

During 2012 we have continued our work on the technical assistance for works supervision for the *Integrated*

Technical Assistance and Works Supervision of ISPA contracts in Craiova, Timisoara and Suceava, Romania





Turnkey project for the Wastewater Treatment Plant in Agnita and Dumbraveni, Romania



Supervision Services for Works Contracts financed under PHARE 2006 CES, Romania

Waste Management systems in Salaj County, which has strengthened our presence in the Central region thanks to the coordination from the Cluj-Napoca regional office.

In **Building and Civil Works** sector we finalized one of the most important projects in Romania: *Site*

**Site Supervision of Civil Works–
Judicial Reform Project, Romania**



supervision of civil works – Judicial Reform Project, financed by the World Bank with the aim of the rehabilitation and the construction of twelve courts of law for the Ministry of Justice.

Related to **Regional Development and Tourism** sector, we have successfully handed over the *Supervision services for works contracts financed under PHARE 2006 CES programme*, the third project developed in the sector for Ministry of Regional Development and Tourism. Eptisa provided technical assistance services for the supervision of 19 works contracts for rehabilitation and construction of the tourism, transport and business infrastructure, historical monuments and road works, which was implemented in 5 development regions.

Moldova

During 2012 our presence on the Moldovan market has consolidated thanks to the four environmental projects that are being implemented in the country, financed by the key International Donors, targeting to develop strategies and institutional reforms as well as design and supervision of infrastructure works, mainly in the water and waste sectors.

THE WESTERN BALKANS

2012 has undoubtedly been a very positive year for the consolidation of Eptisa’s Regional Office in the Western Balkans.

In addition to the twenty new signed contracts, covering a wide variety of technical disciplines (ranging from transport engineering to environmental infrastructure, and from energy to public administration reform services), the implementation of fourteen projects was successfully finalised with remarkable results.

We face 2013 with a total number of 33 assignments under implementation across the Western Balkan countries.

Important also to underline that following the establishment of Eptisa Southeast Europe d.o.o., our local subsidiary in the Republic of Serbia, the company became a member of the Association of Consulting Engineers of Serbia, the national representative of the International FIDIC Association and also of the EU Federation of the Engineering Consultancy Associations.

Another highlight of the year was certainly the inauguration in April 2012 of Eptisa ADRIA d.o.o., the subsidiary



▲ TECHNICAL ASSISTANCE FOR PROJECT MANAGEMENT AND SUPERVISION OF WORKS FOR THE EXTENSION AND REHABILITATION OF THE WATER AND WASTEWATER INFRASTRUCTURES IN HARGHITA, ARGES, CARAS SEVERIN AND VALCEA COUNTIES, ROMANIA

In the Harghita County, Eptisa provides support to the regional Water and Wastewater Operator, SC Harviz SA, in project management and design activities and technical assistance for works supervision of 8, ensuring conditions for a modern and efficient management of the county water and sewage system.

In the Arges County, Eptisa will supervise 11 works contracts: 8 according to FIDIC Red Book and 3 according to FIDIC Yellow Book and Romanian Law 10/1995 regarding the quality in construction, for the rehabilitation of the water systems in 3 urban agglomerations, with a total population of 266,000 inhabitants.

In Caras Severin County, Eptisa was awarded the technical assistance for project management of the modernization of the drinking and waste water infrastructure in the region. We will provide support in project management and institutional strengthening of the Regional Operator and will carry out procurement procedures according to the Financial Application and Financing Contract. It will also be responsible for elaboration of the necessary studies to assure an efficient management for the implementation of SOP Environment investment and will update the Master Plan for 2012 and priority Investment List for second phase (2013 - 2018), including updating the Feasibility Study.

Finally, in the Valcea County, Eptisa will supervise the works contracts for the extension and rehabilitation of the water and wastewater networks, as well



as the wastewater treatment plants in the region. This is our second project implemented for the regional water operator. The project consists of the supervision of eleven works contracts, seven according to FIDIC Red Book and four according to FIDIC Yellow Book and according to Law 10/1995, for quality in construction, for improving the water and waste water infrastructure.



◀ WORKS SUPERVISION FOR THE INTEGRATED WASTE MANAGEMENT SYSTEM IN BISTRITA-NASAUD COUNTY, ROMANIA

In 2012 the project for the Integrated Waste Management System in Bistrita-Nasaud County was finalized. The overall objective was to improve the waste management and eliminate the environmental impact and the risk on human health for a beneficiary population of 300,000 inhabitants.

Eptisa has supervised three works contracts for the construction of the Integrated Waste Management Centre and of the Sorting and Composting Plant in Dumitra, the rehabilitation and closing of the non-conform urban and rural deposits, and the construction of 5 transfer stations and 5 collecting platforms in the region.

company of Eptisa in the Republic of Croatia. The newly established company, based in Zagreb, is responsible for coordinating all the commercial efforts and for undertaking the project management of all the assignments implemented by Eptisa in the country.

Furthermore, it is equally important to mention that, during 2012, Eptisa initiated the process of founding an additional subsidiary in the region, this time based in the Republic of Macedonia*. The office will have its sit in Skopje and its inauguration is envisaged for the first half of 2013.

This permanent and long-lasting presence covering the entire Western Balkans provides us with a very valuable knowledge of the local characteristics, of the organisation of the different authorities, and also of the design and construction standards in the whole region.

REPUBLIC OF ALBANIA

Eptisa is currently implementing three

projects in Albania, in the fields of **Transport and Environmental Infrastructure**. During 2012, we continued providing technical support to the Albanian Roads Authority within an important project that aims to deliver expert advice on the implementation of major road investments and construction contracts in the country. Here, Eptisa offers technical support for project implementation and contract management related to road investment and construction, delivers on-the-job training to project managers tasked with project implementation, and assists in the preparation of future road investment projects.

Our position was further enhanced within the **Transport Infrastructure** sector with the signature of a new contract, *Supervision of Secondary and Local Roads*, through which we will monitor the upgrade of 1,500 km of local and secondary roads in throughout the entire country. For the next three years, a strategically composed team of local and international engineers will be responsible for the supervision of all the contrac-

ted civil works, including monitoring, inspection, and reporting supervision activities with direct support to the Albanian Development Fund (ADF), the implementer of all the project components.

In the field of **Environmental Infrastructure**, Eptisa advanced with the supervision services for the construction of the sewerage systems in Velipoja and Shkodra, as part of an EU-IPA initiative. The contract envisages the finalisation of the construction of a new sewerage network and a wastewater treatment plant in the city of Velipoja, and a new sewerage system in the industrial area of Shkodra, in the north-west of Albania.

BOSNIA AND HERZEGOVINA

Eptisa preserved its success when working in Bosnia and Herzegovina, resulting in several new contracts signed in 2012.

First, Eptisa inked a new contract for the supervision of the design and

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▲ REGIONAL HOUSING PROGRAMME IN FOUR WESTERN BALKAN COUNTRIES – TA FOR FORMULATING THE FEASIBILITY REPORTS AND FOR IMPLEMENTING THE COUNTRY HOUSING PROJECTS

The Technical Assistance to support the four Western Balkan countries during the implementation of the overall Regional Housing Programme is financed by the European Commission and the Council of Europe Development Bank. The aim is to provide durable housing solutions for the

refugees and internally displaced persons (IDPs) after the armed conflicts in the Western Balkans during the nineties.

The Programme was planned to address the housing needs of the most vulnerable population, targeting 74,000 people or 27,000 households, with the purpose to contribute towards the completion of the protracted displacement situation in the four beneficiary countries by providing sustainable housing solutions either through voluntary return and reintegration, or by means of local integration.

Eptisa, as part of a joint venture, will provide substantial assistance to the national Project Implementation Units (PIUs) in the four partner countries in finalising the preparation of the specific Country Housing Projects (CHP) within the joint Regional Housing Programme, and in their subsequent implementation so as to provide sustainable housing solutions in line with the best international practices and for the benefit of those most in need.

The Country Housing Projects foresee different eligible housing solutions, from the provision of flats and houses through building, reconstruction, renovation or purchase, the supply of construction materials, and the accommodation in social welfare institutions. Related to these solutions, Eptisa will provide technical assistance to the PIUs at all the stages during the construction of all the sub-projects, including the provision of expert advice for the preparation, design, pre-construction, construction and post practical completion.

construction works of 36.6 new kilometres of the motorway Banja Luka – Doboj, a section of the Trans-European Corridor V. Thanks to this new assignment, we will supervise the works on the section Prnjavor – Doboj and on several local and access roads. This road will play a key role in providing a financial boost to the development of Bosnia and Herzegovina's economy and will also have a significant impact on the entire region.

The second awarded project intends to finance investments in the water supply network in the municipality of Capljina through the EBRD project *Capljina Water Supply System - Financial and Operational Performance Improvement Programme and Public Service Agreement*. Through this initiative, Eptisa provides technical support in the development and implementation of a Financial and Operational Performance Improvement Programme (FOPIP) for the water utility company, and for the preparation of a Public Service Agreement between the utility and the municipality.

In addition, Eptisa further strengthened its position within the **Water** sector by signing a new contract fi-

nanced by the Global Environment Facility (GEF) and aiming to strengthen the integrated management of water resources in the country, in accordance with the EU Water Framework Directive. Specifically, Eptisa provides technical assistance for the management of the Neretva and Trebisnjica river basins, developing decision support instruments and guidelines to achieve the maximum economic effects in respect to the operational rules and constraints of hydropower plants in various hydrological conditions.

In the **Environmental Management** Sector, Eptisa is participating as a partner to *Support the Implementation of the Birds and Habitats Directives*, delivering assistance to the national and entity-level institutions in the transposition and implementation of the EU Directives on Birds and Habitats. Furthermore, we assist the environmental authorities during the initial steps for the development of a NATURA 2000 network and its corresponding implementing strategy and management plans.

Additionally, we advanced with the implementation of the EU-funded

project *Strengthening of Bosnia and Herzegovina's Environmental Institutions and Preparation for Pre-Accession Funds*, aimed at strengthening the technical, administrative and programming capacities of all the institutions involved in the management of the country's natural resources. This will result in bringing Bosnia and Herzegovina closer to the EU environmental standards.

Within the **Social** sector, Eptisa is currently involved in strengthening the role of the Civil Society Organisations, as part of the EU-funded project *Capacity Building of Government Institutions to Engage in Policy Dialogue with the Civil Society*. In more detail, Eptisa supports the Governments of Bosnia and Herzegovina at a national and entity levels to increase the engagement of the civil society in the different reform processes related to the eventual accession of the country to the EU.

Besides, Eptisa is part of an international consortium working on *Institutional Strengthening and Capacity Building in the Employment Sector*. The aim of this project is to improve institutional capacities of the labour



▲ CONSULTANCY SERVICES IN SUPPORT OF EU PROGRAMMES ON ENERGY EFFICIENCY, CROATIA, HUNGARY, POLAND, ROMANIA AND THE SLOVAK REPUBLIC

Eptisa is part of an international consortium providing consulting services on energy efficiency issues through this framework contract signed with the EIB. The aim of the project is to offer technical assistance to financial intermediaries and final beneficiaries during the implementation and

operation of the newly established Green Initiative Facility, as well as for other similar EU Facilities to be managed by the EIB between 2012 and 2016.

The assignment targets energy efficiency projects implemented by Small and Medium Enterprises (SMEs) and Energy Service Companies (ESCOs) in Croatia, Hungary, Poland, Romania, and the Slovak Republic.

During next 4 years, a multidisciplinary team assists a number of financial intermediaries in the selection, preparation, processing, and verification of a wide range of energy efficiency projects eligible for EU grant financing.

More specifically, Eptisa provides expert advice in the technical and financial assessment of investments on the energy demand side, which aim to improve the energy performance of buildings, industries, infrastructure, or equipment of SMEs, or investments implemented by ESCOs for SME end-users.

The assignment also aims to improve the skills of the bank officers in the overall understanding of the Green Initiative Facility and to develop energy efficiency lending as a financial service. In this regard, substantial efforts will be devoted to the marketing activities aimed at raising awareness by informing about the benefits of implementing energy efficiency investments.

market management and employment service delivery at national, entity and sub-entity levels, in order to make the labour market work effectively in the country, currently hit by very high unemployment rates.

In terms of finalised projects in the year, Eptisa successfully completed the implementation of the EU-funded *Technical Assistance for the Implementation of the Energy Community Treaty for South-Eastern Europe, with a Particular Focus on Energy Efficiency and Renewable Energies*. Here, Eptisa assisted with reforms in the **Energy** sector aimed at creating a countrywide energy market, in line with the commitments from the Energy Community Treaty, the Energy Charter Treaty, the Kyoto Protocol, and all the aspects of the Acquis Communautaire related to energy efficiency and renewable energy.

Eptisa was also part of an international consortium that successfully completed the project *Building the Capacity to Promote Exports and Develop the Export Base in Bosnia and Herzegovina*. Its main activities involved the development of the institutional capacity to develop export promotion strategies, to promote exports, and to improve the competi-

tiveness and export performance of companies, especially the SMEs.

REPUBLIC OF CROATIA

Eptisa consolidated its presence in the Republic of Croatia by opening Eptisa ADRIA d.o.o. in Zagreb in early 2012, which facilitated the award of two important EU-funded contracts.

The first project, within the **Environmental Infrastructure** Sector, is entitled *Works Supervision for the Construction of the Waste Management Centre Marišćina in Primorsko-Goranska County*, through which Eptisa closely monitors the construction of a new state-of-the-art regional solid waste management centre. The project will be erected under strict EU standards and will include the use of the latest technologies in order to solve the urging demands of one of the largest regions in Croatia. Earlier in the year, Eptisa finalised another project in the Primorsko-Goranska County, where we successfully managed a public relations campaign for the construction of Marišćina sanitary landfill.

We also provide support to the Croatian Ministry of Environment and Nature Protection with the transposition and implementation of the EU

Acquis on Strategic Environmental Assessment (SEA) at regional and local levels. The team of Eptisa's experts will train the officers involved in SEA procedures and will, furthermore, develop a set of guidelines and manuals for the correct implementation of SEA procedures.

Lastly, Eptisa is currently acting in the capacity of the Engineer following FIDIC Conditions of Contract within the project *Supervision of Works for the Construction of the Water Supply and Sewerage System and Wastewater Treatment Plant in Slavonki Brod*. The new facility will have a capacity of 80,000 P.E., contributing to the overall protection of the water resources in this municipality, the seventh largest in the country.

KOSOVO*

During 2012, Eptisa has participated in several important projects in Kosovo. First of all, the company inked a new contract in the field of **Integrated Water Resources Management**, the *Support to the Ministry of Environment and Spatial Planning in Water Management and Monitoring of Water Resources*. Through this program, Eptisa assists with prioritisation and planning activities aimed

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► **WORKS SUPERVISION FOR THE CONSTRUCTION OF THE WASTE MANAGEMENT CENTRE MARIŠĆINA IN PRIMORSKO-GORANSKA COUNTY, REPUBLIC OF CROATIA**

The overall objective of this project is to develop an environmentally and financially sustainable solid waste management system in Primorsko-Goranska County and to build a Waste Management County Centre, financed through the EU-IPA Programme. It represents the most advanced system of its kind in Croatia and in the entire region, marking a turning point in the development of the waste management sector in Southeast Europe.

Eptisa's team are responsible for the supervision of this new state-of-the-art Solid Waste Management Centre that includes also a landfill, a wastewater treatment plant, mechanical and biological treatment facilities, and innovative bioreactor technologies.

More specifically, Eptisa's services on this construction project will include the supervision (approval of the main design and issuing of building permits) during the design period, construction period, testing period, and



defect notification period according to the Contract Documents, Specifications, and Croatian and European standards; and the technical and financial supervision of the works as defined in the Contract and according to FIDIC Conditions of Contract for Plant and Design-Build (Yellow Book) during the implementation of the works.

at improving the protection of water resources and the water management practises in Kosovo in accordance with the EU environmental acquis. The intervention will eventually lead to a unified Water Strategy at a national level.

Secondly, Eptisa renewed its activities within the **Energy** sector by initiating the preparation of an *Energy Efficiency Study in the Building Sector*. Namely, we provide assistance to the Ministry of Energy and Mining in undertaking a quantification of the potential energy efficiency improvements in the building sector and with the development of a detailed Building Energy Efficiency Program.

We also provided a wide range of engineering services for the **Development of Socio-Economic Infrastructure** in several municipalities, as part of the project *Municipal Social and Economic Infrastructure*. Eptisa is involved in all the stages of project implementation, developing detailed designs and technical specifications, and supervising the construction works until handover and final acceptance.

Lastly, in 2012 we successfully finalised the project *Preparation of the Environmental Strategy and Environmental Action Plan*, aimed at facilitating the alignment with the relevant EU standards and international conventions in the field of environment.

FYR MACEDONIA*

Eptisa proceeded with the implementation of the *Technical Assistance for Strengthening the Capacity of the Institutions to Manage and Implement the Operational Programmes*. Within this EU-IPA project, we are increasing the administrative capacity of the institutions entrusted with the management of the EU pre-accession assistance in order to achieve a sound and efficient management of all the funds.

In the **Transport** sector, Eptisa finalised the preparation of the *Feasibility Study for the Eastern Section of the*



▲ SUPPORT TO MINISTRY OF SCIENCE IN THE IMPLEMENTATION OF THE RESEARCH AND DEVELOPMENT (R&D) INFRASTRUCTURE INITIATIVE, REPUBLIC OF SERBIA

The R&D Infrastructure Investment Initiative of the Ministry has a total of €400 million Euros after signing a loan with the EIB and the Council of Europe Development, aimed to enhance the research and development capabilities in the country.

Eptisa was selected to become the main Technical Advisor to the Ministry of Science and Technological Development in the implementation of this R&D Infrastructure Investment Initiative, with the objective to provide all the needed technical support to the PIU (Project Implementation Unit) during a whole range of tendering and procurement activities as well as during the construction of all the related buildings and facilities.

Up-to-date the following works have been completed: Upgrading of the Petnica Science Centre, Renovation of a Natural Centre, Construction of two Science and Technology Parks in Belgrade and Novi Sad, and Construction of the Main Building of the University of Novi Sad.

Pan-European Railway Corridor VIII. Here, we conducted an economic and financial analysis of the various alignment alternatives, we assessed the environmental and social impacts, and we undertook the conceptual design for the selected solution.

It is also important to underline that Eptisa has recently initiated the procedure for the establishment of a local subsidiary, Eptisa Macedonia, with its sit in Skopje. The opening of the new office is envisaged for the first half of 2013.

MONTENEGRO

Thanks to a newly awarded contract, Eptisa continued to further develop its activities across Montenegro, especially related to **Environmental** protection issues. We are currently working on the *Preparation and Implementation of the National and Local Waste Management Plans*, ensuring Montenegro's roadmap for the implementation of the EU legislation in the field of waste management.

In addition, Eptisa continued its activities in the sphere of awareness raising on environmental and sustainable development issues, targeting the population from various municipalities across the country. We are establishing an efficient and viable system for the implementation of activities on environmental awareness. Furthermore, we are preparing and delivering environmental consciousness campaigns and education activities on environmental issues aiming at the student population throughout Montenegro.

REPUBLIC OF SERBIA

In the **Transport** sector, Eptisa signed a new contract to supervise the construction of two major tunnels in the Republic of Serbia. Following FIDIC Condition of Contract, a joint venture led by Eptisa will supervise the construction of the tunnels Predejane and Manajle, both located on the highway E-75. This highway is the most important traffic corridor in the Serbian transport network, connecting the most significant social



and economic centres of the Northern and Southern parts of the country.

Furthermore, we moved ahead with the implementation of the project *Supervision of Construction Works on the Highway E-80, Prosek – Dimitrovgrad*. A team of local and international engineers of Eptisa are supervising the works performed by several international contractors in nine different subsections in the section Dimitrovgrad – Prosek, all the way to the border with Bulgaria. Being part of the Trans-European Corridor X, this road will become a crucial element in the main route from Central Europe to Turkey. Its construction will boost the economic development in the region while decreasing the number of casualties due to traffic accidents. It consists of 60 kilometres and includes 43 bridges and viaducts, 4 tunnels, and 3 interchanges.

Also in the Transport Sector, Eptisa successfully finalised the *Supervision of Construction Works on the Belgrade By-Pass (Section A)*. The new by-pass connects Belgrade to the road E75 (to Hungary) and to the E70 highway (to Croatia). The works were undertaken following Yellow FIDIC Conditions of Contract.

In the **Social and Public Administration Reform** sectors, thanks to the new contract *Implementation of Anti-discrimination Policies*, Eptisa will lead an initiative to support the efforts of the Serbian Government in combating discrimination and in promoting tolerance, equality, and diversity. In the following years, our team

will work on the protection of human and minority rights, and on the promotion of equality and non-discrimination standards in the Republic of Serbia.

In addition to this, we are also leading the EU-funded project *Supporting Access to Rights, Employment and Livelihood Enhancement of Refugees and Internally Displaced Persons*, aiming to improve the capacities of refugees and displaced persons to obtain long-lasting employment opportunities.

Eptisa was also part of an international consortium that successfully implemented the project *Support for the Implementation of Decentralised Implementation System*. Throughout this assignment, we gave advice to the Government of Serbia in the development of its administrative and technical capacities in the area of EU funds management and in the process towards the total decentralisation of all the future EU assistance.

In the field of **Building and Architecture** and within the contract *Support to Ministry of Science for the Implementation of the Research and Development (R&D) Facility*, Eptisa is the main technical advisor in the implementation of the R&D Infrastructure Investment Initiative and in the tendering and construction of all the related buildings and facilities. Within this project, a multidisciplinary team from Eptisa provides architectural, engineering and management support services for the design and construction of several buildings and a wide range of research-related infrastructure.

In the **Water and Environment** area, Eptisa is the leading company in the implementation of the *Municipal Infrastructure Support Programme*, covering its Phases 1, 2, and 3. All together, the three phases of this Programme represent a technical assistance of €20.8 million, aiming to assist the Republic of Serbia in the improvement of its municipal infrastructure services, in the enhancement of the human capacities of its local governments, and in the development of its people's living standards. While the successful implementation of the first phase is already behind us, our activities continue now with the realisation of the second and third phases, where we are providing technical support in the preparation and prioritisation of municipal and socio-economic infrastructure projects. We are also undertaking a number of feasibility studies, providing supervision services for several construction projects, and offering advice and support for the improvement of the technical and financial management of several public utility companies.

Also in the field of water and sanitation, Eptisa successfully completed the preparation of the *Sewerage and Wastewater Master Plan for the Region of the West Morava River Basin*. Within this EU-funded assignment, we have also prepared a set of tender documents for the construction of a pilot wastewater treatment plant.

Additionally, and as part of an EU initiative, in 2012 Eptisa finalised the development of *Flood Risk Maps and Flood Hazard Maps* for certain river

basins in the Republic of Serbia. The set of maps are based on GIS technologies, facilitating their integration into the national Water Management Information System, also developed by a consortium led by Eptisa as part of another EU-financed project.

It is also important to emphasise the successful finalisation of the EU-funded *Technical Assistance for the Development of an Environmental Approximation Strategy*, where Eptisa supported the Government of Serbia in designing and developing a roadmap for the transposition of all the EU Directives in the field of environment, in calculating the costs and benefits of this approximation process, in the transposition and implementation of legal acts, and in the design of new financial instruments.

Finally, in the field of **Waste Management**, Eptisa advanced with the preparation of the feasibility study, the detailed design, and the tender documents for the construction of the first *Hazardous Waste Management Facility* in the country.

In the **Energy** sector, Eptisa successfully completed two EU-funded projects. The first one, *Sustainable Development in the Energy Sector*, improved the institutional capacities for the implementation of the Kyoto Protocol. The second project, *Technical Assistance for the Promotion of*

Renewable Energy and Energy Efficiency, consolidated a more efficient use of the renewable energy sources, mainly in the fields of geothermal energy and combined heat and power schemes.

In addition, Eptisa was selected to supervise the construction and commissioning of a new wastewater treatment plant within the Thermal Power Plant Nikola Tesla, which is considered the largest of its kind in Serbia, covering almost half of the national demand of electricity.

Last but not least, we continued providing engineering services within the Supervision of *Works for the Vranje and Leskovac Substations and Related Transmission Lines*.

REGIONAL PROJECTS (MULTI COUNTRY)

During 2012 Eptisa inked a new contract to provide Technical Assistance to Bosnia and Herzegovina, Croatia, Montenegro and Serbia during the implementation of the overall *Regional Housing Programme*, funded by the European Commission and managed by the Council of Europe Development Bank.

Within this initiative, Eptisa gives technical support in the provision of durable housing solutions for refugees and internally displaced persons (IDPs) after the armed conflicts in the

Western Balkans during the nineties. More specifically, our team of experts will provide substantial assistance to the four beneficiary countries in finalising the preparation of the specific Country Housing Projects within the joint Regional Housing Programme, and in their subsequent implementation in order to assure sustainable housing solutions in line with the best international practices.

Another regional project awarded to Eptisa aims to promote the implementation of EU programmes on energy efficiency in a group of EU Member States and in the Candidate Countries. Namely, we are part of an international consortium that is implementing the project *Consultancy Services in Support of EU Programmes on Energy Efficiency*. The assignment targets energy efficiency projects implemented by SMEs and Energy Service Companies (ESCOs) in Croatia, Hungary, Poland, Romania, and the Slovak Republic. During the next years, we will assist a number of financial intermediaries in the beneficiary countries with the selection, preparation, processing, and verification of a wide range of energy efficiency projects eligible for EU grant financing.

FORMER SOVIET UNION (NIS COUNTRIES)

In 2012 Eptisa consolidated its presence in the region with new con-



Waste Governance within the countries of the European Neighbourhood and Partnership Region (ENPI East)



Programme for the Prevention, Preparedness and Response to man-made and Natural Disasters in the ENPI East Region (PPRD East)



Support to the Ministry of Ecology and Natural Resources of Ukraine



Integrated Solid Waste Project, Azerbaijan

tracts in Georgia and Ukraine, as well as the development of trans-boundary projects in the region.

The first of these is the *Programme for the Prevention, Preparedness and Response to man-made and natural disasters in the ENPI East Region (PPRD East)*. The Programme is the Phase 1 of the EU Flagship Initiative on Civil Protection of the Eastern Partnership. Within this program, Eptisa provides technical assistance to contribute to the development of civil protection capacities of the partner countries: **Republic of Armenia, Republic of Azerbaijan, Republic of Belarus, Georgia, Republic of Moldova and Ukraine.**

The risks framework includes natural and man-made disasters: seismic risks, floods, droughts, forest and ground fires; urban and industrial disasters. The programme tackles the risks at the level of preparation, preparedness and mitigation and response management

The second regional project is the *Waste Governance within the countries of the European Neighbourhood and Partnership Region (ENPI East)*, within the Environmental Programme for the Eastern Region of Europe. Its main objective is to reduce the risks of contamination arising from the inappropriate management of solid waste in **Republic of Armenia, Republic of Azerbaijan, Republic of Belarus, Georgia, Republic of Moldova, Russia and Ukraine.**

In the middle of its timeline, the main focus was to develop the waste management strategies and update the registers of illegal waste disposal sites. The latter was successfully completed and transposed into a digital GIS database format for four of the Partner Countries (Armenia, Georgia, Moldova and Ukraine) and into a graphical format for Azerbaijan and Belarus. With respect to the former, important milestones achieved included the development of 15-year waste forecasts for the majority of the Partner Countries. In addition, the implementation of awareness raising and capacity building activities were successfully carried out.

Due to successful completion of Kura River basin Phase II, European Commission EuropeAid Co-operation Office has awarded to Eptisa a service contract *Trans-Boundary River Management of the Kura River basin Phase III*, with the aim of improve water quality management in the Kura River basin and the trans-boundary cooperation of **Georgia, Azerbaijan and Armenia.**

REPUBLIC OF ARMENIA

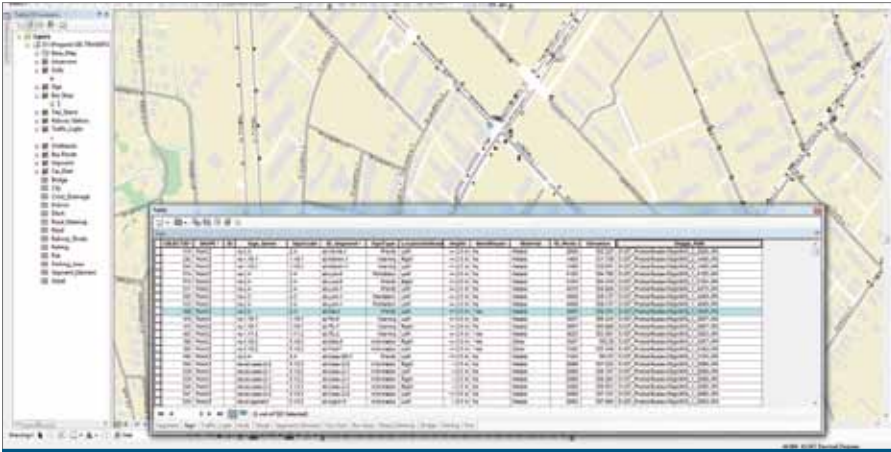
The Asiatic Development Bank has awarded to Eptisa, in consortium, a new contract in the **Transport** sector to carry out the Project Management in two tranches of the Multitranches Financing Facility (MFF) of the North-South Road Corridor Investment Program of Armenia. The global objective

is to contribute to the socio-economic development of the country providing a sustainable, efficient and safe transport North-South Corridor link for domestic and international traffic, and by extension promote Armenia's trade capacity in the region.

Eptisa undertakes the Project Management of this project and support to acquisitions, financial management and assure the compliance with the requirements agreed. As well as the construction supervision, project evaluation and reporting the progress of the reconstruction works of an 18.4 km four-lane section and the improvement of road safety on the Yerevan-Ashtarak road, and the reconstruction works of 41.3 km on the Ashtarak-Talin section.

REPUBLIC OF AZERBAIJAN

In 2012 we worked in the *Integrated Solid Waste Project* for the Ministry of Economic Development, with the overall objective of improve and support the modernization of the **Solid Waste Management** system in the city of Baku. Throughout the year we have supported the reform of the Greater Baku solid waste collection and disposal operations into an effective and sustainable system in the fields of improving environmental conditions at the existing waste disposal sites, building-up operational, management and communication capabilities, roll-out of collection services and data collection and planning.



Geographical Information System, Georgia

Also in 2012, Eptisa was awarded the *Technical Assistance for Strategic Environmental Assessment (SEA) of the Greater Baku Regional Development Plan (GBRDP)*. The objective of the project is to support the Authorities in the development of a sustainable **Urban Development** plan in Baku.

REPUBLIC OF BELARUS

We continue working in the Project financed by the World Bank for *Design and Supervision of Works Concerned with Construction of Mechanical Waste Separation Facility in the City of Grodno*. **Integrated Solid Waste Management** Project for Belarus is part of the World Bank funded programme. The purpose of this Project is to increase environmental benefits of integrated solid waste management in the City of Grodno through recovery and reuse of recyclable materials and strengthen national capacity to mana-

ge hazardous wastes associated with Persistent Organic Pollutants (POPs).

Project design foresees two key assignments: the design and supervision for the construction of the waste separation facility; and the contract for construction of the waste separation facility with a capacity of 120,000 tons per year in the city of Grodno.

Eptisa is carrying out the design and work supervision of the materials recovery facility (MRF). Company's activities in the region led to key staff mobilization and active progress in accomplishing main tasks of the assignment

REPUBLIC OF GEORGIA

In the **Transport** sector we are working in the *Preparation of Detailed Design and Bidding Documents for Construction of the Ruisi-Rikoti Section of the E-60 Highway*. The Go-

vernment of Georgia requested the Bank assistance in upgrading several segments of the East-West highway. The section between Ruisi and Rikoti of approximately 49 km is a two-lane carriageway road, which passes through mountainous and flat terrain. The investment is intended for upgrading the section from 2-lane to 4-lane highway. Deterioration of transport infrastructure increases cost of doing business, deters foreign investments, hampers transit traffic growth, and leaves segments of the population out of mainstream economic activities.

A complete detailed design is carried out in order to select the most optimal alignment for the Ruisi to Rikoti road section, giving the Government of Georgia the best alignment option.

Related to **Water** sector, the Asian Development Bank has awarded Eptisa a new project *Urban Services Improvement Investment Program*. The objective of this ADB Program is to improve water supply and sewerage networks in Georgia.

In the same field, we are working in the project for the design, development and implementation of a *Geospatial Urban Management System*

Detailed Design and Bidding Documents for Construction of the Ruisi-Rikoti section of the E-60 Highway, Georgia





▲ TECHNICAL ASSISTANCE FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE GREATER BAKU REGIONAL DEVELOPMENT PLAN, AZERBAIJAN

The overall goal of this Strategic Environmental Assessment (SEA) is to incorporate environmental considerations and assess the likely significant environmental effects (risks, cumulative long term impacts and opportunities) of the implementation of the Greater Baku Regional Development Plan (GBRDP).

The specific objectives of this SEA are to: (a) recommend policies, institutional and governance arrangements conditioned on the premise of sustainable urban development of the Greater Baku's urban development; (b) provide overall direction and inputs to the GBRDP formulation (including LED strategy and action plan) and other sectorial projects and plans (e.g., conceptual land use plans/structure plans for Alat and Dubendi); and (c) ensure stakeholders and wider public participation in the dialogue on the urban development planning through a series of consultations.

The Study area in this assignment covers roughly 280,000 hectares including a triangular strip separating Baku and Sumgayit cities (including Xirdalan city). Greater Baku Regional Development Framework (GBRDF) and the Greater Baku Regional Development Plan (GBRDP) are expected to be prepared considering the impacts of activities and investments in surrounding regions as well as the national activities.



▲ URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM, GEORGIA

The Asian Development Bank has awarded to Eptisa a new project titled "Urban Services Improvement Investment Program – Project 1". The objective of this ADB Program is to improve water supply and sewerage networks in Georgia. Project 1 requires assistance to the United Water Supply Company of Georgia (UWSCG) in supervision of the construction and rehabilitation of water supply and sanitation facilities in towns of Anaklia, Mestia, Kutaisi, Poti and Ureki.

Eptisa is responsible for supervision of all construction works, design review of the facilities, on-the-job training to counterpart UWSCG engineers, providing assistance for commissioning and handing over of works to the Client.



▲ PHASE III: TRANS-BOUNDARY RIVER MANAGEMENT FOR THE KURA RIVER PROJECT, ARMENIA, AZERBAIJAN AND GEORGIA

Due to successful completion of Kura River basin Phase II, European Commission EuropeAid Co-operation Office has awarded to Eptisa a service contract to improve water quality in the Kura River basin Phase III.

Water quality in the Kura-Aras basin is one of the most critical issues for the countries of the South Caucasus. Kura River is the largest trans-boundary river in the Caucasus region; its basin is shared by five countries – Georgia, Turkey, Armenia, Azerbaijan and Iran. Within the framework of the project, Joint Monitoring Programme was developed and implemented. These activities have contributed to bring into the harmony used methods and tools in surface water monitoring process in Kura river basin.

Among main accomplishments made during the 2nd stage of the project are: successful delivery of projected outputs, providing support of a common monitoring and information management systems to improve transboundary cooperation in the Kura River basin; enhance capacities of environmental authorities and monitoring establishments engaged in long-term integrated water resources management in the Kura River basin.

The long-term objective and the main purposes include support of the establishment of a trans-national common approach to water quality assessment in the Kura river basin which would improve integrated water resources management in the longer term; development of the national capacities needed for trans-boundary integrated water resources management in the Kura river basin.



▲ WORKS SUPERVISION IN IMERETI REGION UNDER REGIONAL DEVELOPMENT PROJECT II, GEORGIA

The World Bank is financing the Regional Development Project, which includes the development of touristic and recreational infrastructure in Imereti Region.

Eptisa is responsible for the construction supervision of the rehabilitation works. The civil works contracts to be supervised include a variety of works, such as restoration of buildings and cultural heritage monuments/sights, as well as municipal water and wastewater system, local roads and utility services.

The overall objective of construction supervision is to execute control over the rehabilitation works in order to ensure high quality of construction, adherence to the terms of work execution provided in the construction contracts, and compliance with the detailed design and specification requirements, which in its turn will result in reliability, long-term sustainability and efficient operation of the rehabilitated sites.

for the water supply and sanitation network. Georgia aims to improve the delivery of water supply and sanitation services (WSS) through effective implementation of legal, economic and financial frameworks for local self-governance. The Government proposes to improve and expand WSS services across urban centers by leveraging donor and private sector funds. To ensure adequate maintenance of WSS systems improved under the proposed investment program. The system will assist staff of the United Water Supply Company of Georgia plan improvements and maintain infrastructure created under the proposed investment program.

And in the **Information Technologies** sector, we were awarded a project for implement a Geographical Information System for the Management of the urban transport for eight cities in Georgia. The work includes collecting field data and designing and developing the information system with databases, desktop applications and web-viewer.

Finally, in the **Socio-Economic Development** sector, and through a project financed by the World Bank, Eptisa carries out the works supervision for the rehabilitation and refurbishment of touristic infrastructures (buildings, monuments, etc.) in the region of Imereti.

UKRAINE

The Ministry of Ecology and Natural Resources (MENR) awarded to Eptisa, in consortium, a new contract to provide *Complementary Support to the Ministry of Ecology and Natural Resources of Ukraine for the Sector Budget Support Implementation*.

The services provided by Eptisa include capacity building to planning, execute and supervise the Sector Budget Support Implementation and the National Action Plan in accordance with the National Environmental Strategy priorities. Eptisa provides complementary support to the Ukrainian Government and institutions and makes sure the project successfully

reaches the performance indicators in compliance with the programme conditions. It also supports ensuring improved coordination amongst stakeholders and proper monitoring and visibility of the sector budget support programme.

The technical assistance also covers harmonisation of Ukrainian legislation with the EU norms and standards, intensification of the civil society and NGOs' role and enhancing communication/information in environmental issues of Ukraine.

TURKEY

Eptisa became established in Turkey in 2006, and now has more than 90 professionals working in its central offices in Ankara and Istanbul, from where five projects are managed in the country and other two in the region close to Central Asia.

Nowadays we are the benchmark for other companies that want to develop business and invest in the country.

In the **Transport** sector, we are working in the most emblematic project developed in the city of Istanbul: *Marmaray Project*, which consists of the development of the rail lines connections between the European and the Asian side in Istanbul including the construction an undersea tunnel in the Bosphorus Strait. This will allow the transit of high-speed, commuter and freight trains between the two continents.

This project is one of the largest transportation infrastructure projects in the world today, because the entire upgraded and new railway system will be approximately 76 km long.

The OHL-Dimetronic Joint Venture, which is carrying out the construction of the *Gebze-Haydarpaşa, Sirkeci-Halkali* section has awarded to Eptisa, in consortium with the company Prota, the construction design, as well as the design of the stations and all associated structures in both European and Asiatic side.

Within the **Building** sector, the architectural contest "ARKIV Selections" has selected the Kağıthane School, where Eptisa had carried out the works supervision, as one of the quality buildings of 2012. The School was part of Eptisa's project for the *Consultancy Services for Design and Reconstruction Supervision of Etiler Police Vocational Academy Dormitory and 40 Schools in Istanbul*.

Kağıthane Chamber of Commerce Primary School is one of the 40 schools to be demolished and reconstructed within the scope of the *Istanbul Seismic Risk Mitigation and Emergency Preparedness Project* (ISMEP) aiming to prepare Istanbul for any potential earthquake. The architectural projects were designed by Uygur Architecture Office and the technical assistance and supervision services were provided by Eptisa.



Kağıthane School,
Architectural Contest
"ARKIV Selections"
Award, Turkey

We continue working in the *Supervision Services for Construction of Forensic Laboratories in the Cities of Istanbul, Izmir, Diyarbakir and Adana*. Eptisa is responsible for the execution of all works compliant to contract conditions, as well as to ensure the provision of the services necessary during the defects notification period. The works contracts are organised in four lots, one for each laboratory, and is based on the FIDIC conditions of contract for construction (Red Book).

In the **Energy** sector, Iberdrola, which is developing its first wind farm in Turkey with a total investment of around 100 million Euros, has awarded a new contract to Eptisa to carry out two studies and the foundation design for the equipments.

This new 48 MW Wind Farm is located in Subasi in Edirne Province, close to border with Greece and it has 29 wind turbines, 2 permanent Met Masts, a substation area and control building. Eptisa provides geotechnical and hydrologic studies for all the wind farm area and the foundation design for Turbines and Permanent Met Mast.

Last but not least, in the **Water** sector we continue implementing the *Construction Project for the Ceyhan Waste Water and Storm Water Treatment Plant*. Eptisa carries out the Project Management and Cons-

truction Supervision Services under FIDIC Conditions of Contract, and technical assistance and capacity building services.

The project is under the scope of the Environment Operational Programme - Instrument of Pre-Accession Assistance (IPA) for the Regional Development Component in Turkey and is co-financed by the EU and the Turkish Republic Government. The construction works, also under IPA Program, will finalize in 21 months.

The objective of the project is to support the improvements in storm water and waste water systems in order to improve the conditions of health standards, environmental protection and municipal services.

The Opening Ceremony targeted to raise public awareness among local residents and relevant organisations in the region about the environment in general and most specifically this project, in support of the efforts of the Ceyhan Municipality to provide services for a healthy and sustainable environment. The ceremony was attended by the representatives of the Ceyhan Municipality, Delegation of the European Union to Turkey, Ministry of Environment and Urbanisation EU Investments Department and local stakeholders NGOs.

Supervision Services for Construction of Forensic Laboratories in the cities of Istanbul, Izmir, Diyarbakir and Adana, Turkey



► WORKS SUPERVISION FOR THE CONSTRUCTION OF THE WASTE WATER AND STORMWATER TREATMENT PLANT IN CEYHAN, TURKEY

Eptisa carries out the Project Management and construction supervision following the FIDIC Conditions of Contract, and provides technical assistance and capacity building services. The project is under the scope of the Environment Operational Programme - Instrument of Pre-Accession Assistance (IPA) for the Regional Development Component in Turkey and is co-financed by the EU and the Turkish Republic Government. The overall investment value for the project is 22 Million Euros.

The objectives of the project are provide technical assistance for administrative, financial and technical capacity building of Ceyhan Municipality and the modernisation of the Water Utility Department to improve the planning of projects, the financial and operational performance for water/wastewater services. We will supervise the 1st phase of the construction works of the waste water treatment plant and replacement of the existing collector, and the construction of storm water drainage network for the existing area.



The construction works, also implemented under IPA programme, are expected to be completed within 21 months. The beneficiaries of the project are the Ceyhan Municipality, the authority for waste water treatment plant and the other infrastructure investments in the area. The Contracting Authority for the project is the Ministry of Environment and Urbanisation EU Investments Department.

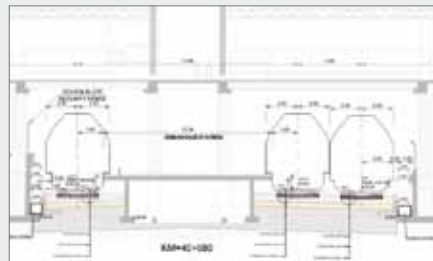


▲ CONTRACT C3: GEBZE-HAYDARPAŞA, SIRKECI-HALKALI COMMUTER RAILS UPGRADING AND RAILWAY BOSPHORUS TUBE CROSSING CONSTRUCTION (MARMARAY), TURKEY

Eptisa, in consortium with the Turkish company Prota, has awarded a new contract titled *Gebze - Haydarpaşa, Sirkeci - Halkali* Commuter Rail Upgrading by the OHL-Dimetronic joint venture, which is carrying out the construction of this railway line in Turkey.

The Marmaray project propose is to provide bi-directional, safe, robust, reliable, comfortable, durable, cost-effective and uninterrupted train transportation of passengers and freight throughout the Istanbul area of Turkey on both sides of, as well as under, the Istanbul Strait. It consists in the improvement of the existing railway corridor in the metropolitan area: enlargement of the current double-track infrastructure to a triple-track infrastructure and the tunnel connection beneath the seabed of the Bosphorus Strait.

The implementation will upgrade the existing railway corridor and adapt it to accommodate two tracks for internal Istanbul traffic (Commuter Rail) plus a third line on which interurban traffic will run (Intercity). Furthermore, the railway corridor has to be suitable for the movement of goods both on the dual track (CR) and on the two-way single track (IC). The capacity in passengers in this service at peak-hours should be 75,000 passengers per hour per travel. The loading capacity for freight trains will be around 25 tonnes and the maximum operational speed will be 100 km/h with 104 min. of travel time between Gebze and Halkali



(currently is about 185 minutes). The entire upgraded and new railway system will be approximately 76 km long.

The railway corridor runs along the length of the coast of the Sea of Marmara, between the towns of Kazlıçeşme and Halkali in the European side of Istanbul, and between the towns of Ibrahimaga and Gebze in the Asian side.

Eptisa, among other activities, is working in the conceptual, preliminary and detailed design and the preparation of technical specifications for the manufacture, fabrication, installation and construction of all systems and structures.

This includes the layout,

earthworks and drainage works, stations (architectural, structural, MEP, acoustic, fire safety and protection and landscape), overpasses, bridges, depots and stabling yards; track superstructure; substation and power supply.

We provide the site survey and investigation of the existing structures to retain, upgrade or demolish and replace.

The main structures and systems include: three new underground stations, 37 surface stations (renovation and upgrading), 197 structures, operations control centre, yards, workshops, maintenance facilities, upgrading of existing tracks including a new third track and completely new electrical and mechanical systems.







Asia

UZBEKISTAN

Eptisa, in consortium, has been awarded with a new contract in Uzbekistan titled *Water Supply and Sanitation Services Investment Program – Tranche 1. Management of Investment Program within Multitranches Financing Facility*. This assignment is part of Asian Development Bank funded infrastructure programmes and will be implemented until August 2017. The purpose of this contract is to assist the Uzbek Communal Services Agency in supervising and administering the design and construction of the individual sub-projects.

The project includes the reconstruction of water pipelines, wastewater facilities, sewerage networks and water supply systems in the cities of *Andijan, Gijduvan, Kokand, Vabkent, Termez, Fergana, Margilan, Rishtan* and *Yangibazar* and in the regions of *Djizzak, Khorazm* and the Republic of Karakalpakstan.

Also within the **Water** sector and financed by the Asian Development Bank, we continue with the project *Surkhandarya Water and Sanitation Project Implementation Assistance*. We provide technical assistance services with the aim of improve the

quality of life and the health conditions in the City of Termez and seven rayons of Surkhandrya oblast. These last areas need restore and modernize their drinking water supply facilities.

KAZAKHSTAN

At the end of the year, in the **Energy** sector, we were awarded a new project to develop the roadmap of the *National Renewable Energy Plan*, the analysis of different financial options for its implementation and the improvement of the regulatory framework. The Government of Republic of Kazakhstan, through the state holding Samruk-Kazyna, is pursuing the development of a plan in this sector with the aim of planning the investment during next 15 years to increase the share of renewable energies up to 10% until 2020.

KYRGYZSTAN

In 2012 Eptisa was awarded its first contract in Kyrgyzstan financed by the Asian Development Bank. The objective of this project is to improve water supply and sanitation in the cities of Osh (capital city of the Osh region and 2nd largest city of Kyrgyzstan) and Jalal-Abad (capital city

of the Jalal-Abad region) and Bazar-Korgon situated in the South-West of the Kyrgyz Republic on the border with Uzbekistan.

During 21 months, Eptisa will prepare the design and cost options for the rehabilitation or new build for the needed infrastructures, as well as Resettlement Action Plan (RAP) and Environmental Management Plan (EMP) in accordance with ADB procedures. In addition Eptisa will assist the client with the Tender preparation, selection, contracts under ADB's Procurement Procedures, as well as, the management and supervision of the Contractors during the works implementation.

VIETNAM

Eptisa, after show a great experience and management during the implementation of the second phase of the *Environmental Sanitation Programme in the Dong Hoi fishing city*, received an addendum to the contract to assist the Project Management Unit (PMU) during this process by providing a detailed assessment of the results for the performance of the 1st priority works carried out by International Construction Supervision Consultants.



Improvement of the Water Supply and Sanitation Networks in the cities of Osh, Jalal-Abad and Bazar-Korgon, Kyrgyzstan

Safety Audit for the Hyderabad Metro, India



Environmental Sanitation Programme in the city of Dong Hoi, Vietnam



As part of the Phase II, Eptisa will continue the flood protection and drainage work, further develop the construction of sewers network, interceptors and wastewater collection, build a wastewater treatment plant and develop an improved system for solid waste management. In addition, according to the Terms of Reference, Eptisa will collaborate with the PMU in the negotiation of the “2nd Priority” construction and procurement packages, according to the Consultants outputs carried out with the “1st priority” packages”.

INDIA

Eptisa consolidated its presence in the country after been awarded with four contracts throughout 2012 in different sectors such as: transport, environment, water and irrigation. In the **Environment** sector, we worked in the inventory of hazardous waste landfills in Bengal. And related to irrigation we collaborate with the Uttar Pradesh Agriculture department in a feasibility study.

In the **Transport** sector we received our first project from the *Hyderabad Metro Rail Limited* to carry out a safety audit for the Metro of Hyderabad, the capital city of the Andhra Pradesh state. Based on the figures from traffic and transportation surveys carried out by various agencies, the Government of Andhra Pradesh has approved the development of the Hyderabad Metro Rail (MRTS) in three high density traffic corridors.

Eptisa undertook the safety audit of the designs and drawings, the Design Basis Reports (DBRs) and other documents prepared by the concessionaire, L&T Metro Rail Hyderabad Ltd (L&TMRHL) and various consultants, including the elevated viaduct, the rail alignment, stations and other elevated structures of the metro rail system.

Eptisa has been acknowledged by the Spanish General Directorate for Railways as Notified Body with ability to act as Independent Safety Assessor (ISA), according to Regu-

lation EC 352/2009 of the European Commission and acted as ISA during the construction of Hyderabad Metro Rail System in 2012.

In the **Water** sector, the Government of India, through the Central Water Commission (CWC) a technical organization in the field of Water Resources and is presently functioning as an attached office of the Ministry of Water Resources, awarded to Eptisa a new contract to carry out the project of *Supply, Installation and Commissioning of Surface Water Information System*, with the objective of migrate the actual applications and data bases used by the Central Water Commission for central storage of hydro-meteorological data, to a new e-SWIS system (Surface Water Information System), as well as the existing system for validation and data processing.

CHINA

After opening and commissioning of the Hafei-Airbus manufacturing aeronautical parts plant in Harbin, where Eptisa played an active role, we continue working with cooperation, analysis and technical assistance services in new projects generated

by the plant. We have draw up, developed and managed a variety of projects with a view to adapting the facilities to the needs of the manufacturing processes. This was carried out according to the high production standards required in the aeronautical sector and was aimed to cooperate with the clients.

After three years in China, Eptisa is considered a benchmark company in the engineering field by the local partners.

Hafei-Airbus Plant in China





▲ NATIONAL RENEWABLE ENERGY PLAN OF KAZAKHSTAN

Within the strategy of the Government of Republic of Kazakhstan for the development of alternative and renewable energy sources, the state holding Samruk-Kazyna is pursuing the development of a Plan in this sector with the aim of planning the investment during next 15 years to increase the share of renewable energies up to 10% until 2020.

Eptisa has been awarded this new contract and will develop a roadmap for national development of renewable energy, the analysis of different financial options for its implementation and the improvement of the regulatory framework during 2013.

Within the main objectives of the study, Eptisa will lead the following activities:

- Analyze the current situation and provide reports for the preparation of a long term (2013-2030) Road-Map to increase the share of renewable energies up to 10% until 2020
- Develop and assess (operationally, economically and environmentally) three generation capacity alternative scenarios of energy-mix (conventional vs. renewable), from 2015 to 2030
- Select a list of 5 priority projects and investments in renewable energy power (solar, wind, hydro, etc.) to be launched before 2015
- Identify those parts of the renewable value chain where it should foster the local participation and define the investment strategy
- Define key regulatory guidelines and possible organization of administrative bodies responsible for renewable energy development
- Develop specific recommendations regarding the development of local skills and capabilities and the capitalization of this plan to maximize Kazakhstan's economic development.



▲ IMPLEMENTATION OF AN E-SWIS SYSTEM (SURFACE WATER INFORMATION SYSTEM) IN INDIA

The Government of India, through the Central Water Commission (CWC) a technical organization in the field of Water Resources and is presently functioning as an attached office of the Ministry of Water Resources, has awarded to Eptisa a new contract to carry out the project “Supply, Installation and Commissioning of Surface Water Information System” with one year of duration and ten years to its maintenance.

The main aim of the project is the migration of the actual applications and data bases used by the Central Water Commission for central storage of hydro-meteorological data, to new e-SWIS system (*Surface Water Information System*), as well as the existing system for validation and data processing.

The new web based environment system will be implemented in participating agencies in the second phase of the national Hydrology Project, and poten-

tially in all States and UTs of India. Furthermore, will be provided the web services required for data dissemination that, among other tasks, will allow the support of the Flood Warning functions.

Eptisa will provide the following services during the implementation: Review of the existing databases, system design, and processes; system design for data-flow, storage, dissemination, web platforms and GIS components and processes; development and implementation of the software (using open source software) in a phased manner; migration of the existing data from HIS databases (i.e. SWDES/WISDOM/HYMOS); training to different section of staff (i.e. end users, administrators, etc.); documentation, online help, real-time help.



◀ WATER SUPPLY AND SANITATION SERVICES INVESTMENT PROGRAM, UZBEKISTAN

Eptisa, in consortium, has awarded a new contract in Uzbekistan titled *Water Supply and Sanitation Services Investment Program—Tranche 1. Management of Investment Program within Multitranchise Financing Facility* financed by the Asian Development Bank and will be implemented until August 2017.

The purpose of this contract is to assist the Uzbek Communal Services Agency in supervising and administering the design and construction of the individual sub-projects. The project includes the reconstruction of water pipelines, wastewater facilities, sewerage networks and water supply systems in the cities of Andijan, Gijduvan, Kokand, Vabkent, Termez, Fergana, Margilan, Rishtan and Yangibazar and in the regions of Djizzak, Khorazm and the Republic of Karakalpakstan.

Among other activities, Eptisa will supervise the feasibility studies and final and “As built” design; will approve the Contractor’s key staff, construction programmes and method statements, temporary land occupation by the contractors, materials and sources of materials and will inspect the works periodically.

As well as will train the future operatives in the correct operation of the plant in accordance with the chosen processes and installed equipment so as to ensure a low operating cost for treating the wastewater.





America

HAITI

In 2012, in the **Water** sector, we continued developing the project *Preparation of the Regional Master Plan for Drinking Water Supply and Sanitation* for the South and West zone (OREPAs) of Haiti. The project includes the preparation of feasibility studies for nine cities in the zone. The aim of the Master Plan is to provide each one of the four Regional Office Drinking Water and Sanitation (OREPAs) a development scheme for the short-, medium- and long-term.

Related to **Transport** sector, the European Commission awarded us the project to carry out the *Study for the identification of development program centered on the Centre-Artibonite Loop*. This study aims to collect and provide relevant and appropriate information to justify the projects' evaluation criteria for the restoration of the area affected by the earthquakes of 2010. The documentation will include both financial and structural information.

This analysis will identify the works required for the restoration of the secondary roads network, renovation of urban centres and socio-economical & ecological assessment. The information collected will be geographic, topographic, geotechnical and hydrological data, as well as to analysis of structures, brid-

ges, viaducts, etc. This project has allowed us to extend our knowledge about the geographical environment in Haiti. So now we can say that we have experience in almost all parts of the country.

In the **Social Development** sector, we are involved in an institutional strengthening project, which provides *Technical assistance to Support to the Ministry of Trade and Industry Programme* to improve the country's integration into the regional and international exchange dynamic, as well

as to capitalize on this integration in favour of the sustainable growth of its economy.

The specific objectives of the contract consist of strengthening the MTI's institutional capacities to analyzing, formulating and implementing trade, industrial and competitiveness policies. It will also consolidate the coordination between public and private stakeholders and will ensure the coordination and implementation of the different trade agreements and commitments.

Preparation of the Regional Master Plans for Drinking Water Supply and Sanitation for the South and West Zone, Haiti





Cadastral Information Registry in Guatemala

DOMINICAN REPUBLIC

In 2012 we continue with the technical assistance project for the *Support Programme for Public Administration Reform*. The purpose is to contribute to the strengthening governance, social cohesion and modernisation of the government through the professionalization of the civil service, the quality of public services and the institutional strengthening. Eptisa supports the Ministry of Public Administration (MPA) for the implementation of the key elements of its Strategic Plan 2009-2012 in at least six State institutions. These were selected under the surveillance of the civil organisations inherent to Dominican society.

MEXICO

Eptisa is still providing technical assistance for the *Integrated Program of Social Cohesion Mexico–European Union. Lot 2: Mexico–European Union Cohesion Laboratory*. The aim of the project is provide technical assistance and support to the executive management and the program team, as well as to the public institutions involved and to communities or target groups of the programme. All is in order to establish, implement and strengthen an integrated participatory model of sustainable local development in *Selva* and *Sierra* regions in the State of *Chiapas*.

GUATEMALA

During 2012 we were awarded with two new projects in Guatemala.

First one, within the **Public Policies** sector, Eptisa provides technical assistance services for the *Security and Justice Support Programme in Guatemala (SEJUST)*, with the aim of improve the justice and security sectors to allow it to operate more effectively in prosecution and investigation of crime and guarantee due process by protecting the rights of victims and vulnerable groups seeking rehabilitation, reintegration and education of the lawbreakers.

In the second one, the Government of Guatemala, through the Cadastral Information Registry (CIR), awarded to Eptisa the lot 1 of the *Land Administration Project for Guatemala–Phase II*. The objective is to foster the efficient and accessible process of secure tenure of land in the project area through the provision of **Cadastral and Land Administration**.

Eptisa is carrying out the cadastral and limited land regularization processes with the aim of determine both physical and geometric characteristics of the land located in the municipalities of *San Juan Ermita, Olopa, and Quezaltepeque* and *Camotán* in *Chiquimula* department, as

Study for the Development Program of Haiti





Institutional Support Program for the Development Policies in Nicaragua (POFI)

ciety involved, directly or indirectly, in the implantation of development strategies linked to the reduction of poverty, the social protection and the improvement of public budget management.

COSTA RICA

In 2012 we began a new project for the development, setting up and maintenance of the *Real State Registry Information System (SIRI)*, in order to guarantee the maintenance of the real state information and that the base of the real state information will be the data of the National Registry and will operate inside the National Spatial Data Infrastructure and resolve the different types of inconsistencies between the real state registry and cadastre.

We also continue with the project for the *Cadastre preparation and regularization for Cadastre and Registry information for Zapotal Area*. Through this project, which is included in the *Cadastre and Registry Regularization Program*, Eptisa supports the Government to improve legal security and the real property rights. All of this helps to improve both private and public investment. Eptisa provides technical, legal and administrative services for the implementation of the Cadastre - Register Model and improve land use and management of municipal government resources and prepares as final product for each district in digital format: cadastral cartography, associated database, Property Tax Registries and Alternative Dispute Resolution (ADR) Registries.

Finally, as a response to the request of the geotechnical company CACISA from Costa Rica, we are carrying out the auscultation and geotechnical control to the levelled ground close to the *Tarcoles Bridge*, affected by future construction of the Tarcoles dam.

well as to obtain information about these municipalities and the cadastral owners.

Finally, we continued providing technical assistance services to the Government of Guatemala in the implementation of the *Food Security National Policy Document (PESAN in Spanish)*, by contributing to reducing poverty, food insecurity and chronic malnutrition. The programme is being coordinated by the National Food Security Department and the Ministry of Public Finance.

We also support the *Financial Management Support* project in Guatemala, which is to strengthen the Ministry's of Public Finance capacities and improve the transparency and credibility of the Public Administration through a better coherence and efficiency in public expenditure management. The project enhances the relationship between planning and budgeting, making it easier to elaborate and implement integrated programmes and strategies, which are in keeping with the development and social cohesion targets.

EL SALVADOR

In El Salvador we continue providing technical assistance services to the Government in the implementation of the *Projóvenes II* Project. Which objective is to promote social cohe-

sion and to mitigate the risks factors of violence and youth delinquency. Eptisa works on different activities associated with the National Justice, Public Security and Coexistence Policy, and the National Strategy to Support Local Governments in the Avoidance of Violence.

NICARAGUA

In 2012 Eptisa was awarded a new technical assistance project for the *Institutional Support Program for the Development Policies in Nicaragua*, for contribute to the public policies capacity improvement in planning, execution and monitoring their implantation in the key areas established in the Human Development National Plan and to the amelioration of the beneficiary institutions planning capacities and the public sector budget management.

HONDURAS

Eptisa in consortium with two companies was awarded a new project to provide specialized technical assistance for the *Support Program to the Public Administration and the Regional Integration (SPARI)* that will last 4 years.

Eptisa will support the State of Honduras in promote a better grade of social cohesion through the reinforcement of the State Institutions and of other organizations in the civil so-



▲ STATE REGISTRY INFORMATION SYSTEM IN COSTA RICA

The government of Costa Rica signed a loan agreement with the Inter-American Development Bank to financing the Cadastre and Registry Regularization Program with the aim of develop a cadastre of all existing lands in the country, properly georeferenced, integrated and combined with the Costa Rica Real Estate Registry.

The Real State Registry Information System (SIRI) is aimed to the use and integrated administration of cadastre information and its relation with all the lands of the country. The SIRI's information will be accessible for different state institutions, such as for example the municipalities and professional (Land Surveyors, Notaries, Judge, Registrars, Technical Consultants, Coordinators, Administrators) and citizens. The SIRI will provide a tool to assign and monitor the workflow to optimize the tasks of the staff of the Cadastral Division of the Real State Registry.

Eptisa undertakes the conceptual design and the detailed, physical and logical design of a Real State Registry Information System (SIRI) and the Strategic Plan for its implementation, in order to achieve the following objectives: to model, document and optimize the information processes of the new Cadastre-Registry Model of Costa Rica; to develop the software requirements specifications for the SIRI, and carry out the architectural design and the detailed design of the SIRI.

The Real State Registry Information System (SIRI) will have three main subsystems: the Cadastral Information System (CIS) based on a Geographic Information System (GIS), with the geographic and topographic information of the Cadastre; a interface with the Building Assets System (BAS) which includes information of property (alphanumeric and legal); the Interfaces System (IS) which integrates both and offers to SIC users a unified and consistent viewer of the physical and legal descriptions of all lands.



◀ ▲ BIODIVERSITY SUSTAINABLE CONSERVATION SUPPORT PROGRAM (PACSBIO) IN BOLIVIA

The new contract consists of providing international technical assistance for the Biodiversity Sustainable Conservation Support Program (PACSBio). The project general objective is to offer a technical assistance for an adequate implantation of the Program, which aims the biodiversity conservation and the sustainable development in Bolivia, thus supporting the Bolivian policies, in conformity with the Protected Areas (PAs), developed under the Protected Areas National System (PANS).

Eptisa provides a long term international technical assistance in order to give a support to the Environment, Biodiversity, Climatic Changes and Forests Development Management Vice Ministry (EVM) and the Protected Areas National Service for the inter-sector set up, the institutional strengthening in the entire management cycle – planning, funds management, programming; budgeting, execution, control and evaluation- in regards with the SPSP (Sector Policy Support Program) instrument and the visibility.

It also supports the environmental management and monitoring of the SNZP through the Digital Observatory of Protected Areas (DOPA)22 in Bolivia, for the conservation of the biodiversity in protected areas through the Common Centre of Research of the European Community (CCI).



◀ ▲ AUSCULTATION AND GEOTECHNICAL CONTROL TO THE LEVELLED GROUND CLOSE TO THE TARCOLES BRIDGE, AFFECTED BY THE CONSTRUCTION OF THE FUTURE TARCOLES DAM IN COSTA RICA

Eptisa, at the request of the geotechnical company CACISA from Costa Rica, is carrying out the implementation of an inclinometer and piezometer network in the slopes located close to Tarcoles dam. To date, this monitoring network has been formed by 6 inclinometer pipes and 6 piezometer columns, in order to control the possible horizontal movements in depth, as well as the registry of the piezometric levels of the environment.

The installation has been carried out by drilling down in a very heterogenic land with a high fracturing level, thus it has been necessary to resort to installation procedures with a higher complexity to ensure the correct installation and the unity of the device with the surrounding environment.

It is included to hold new installations in the future, by expanding the monitoring network currently set.

PANAMA

In 2012, we completed the project for *Urban Cadastre in the Metropolitan Area* under the direction of the National Land Administration Programme, financed with Inter-American Development Bank funds.

COLOMBIA

In consortium with three local companies, Eptisa continued providing technical assistance services to the *New Territories of Peace of Colombia*. This contributes to the consolidation of their safety and development by promoting socioeconomic initiatives, which it turns towards a culture of peace, democracy and a State of Law. This is fostering to a decent living conditions and equal opportunities for all citizens.

BOLIVIA

In 2012 Eptisa was awarded with a new project within the *Biodiversity Sustainable Conservation Support Program (PACSBio)*, with the global objective of provide technical assistance for an adequate implantation of the program and institutional strengthening to the Environment, Biodiversity, Climatic Changes and Forests Development Management Vice Ministry.

The purpose of the PACSBio is the biodiversity conservation and the sustainable development in Bolivia, thus supporting the Bolivian policies, in conformity with the Protected Areas, developed under the Protected Areas National System.

Throughout 2012, we continued providing assistance and operational support to the Ministry of Mining and Metallurgy, in the *Improvement Work Conditions and Employment Creation in the Mining Regions of Bolivia* (EMPLEOMIN in Spanish). The target is to contribute to economic, social and environmental development in these zones, as well as to create employment opportunities by developing the artisanal mining sector and by diversifying the economy activity.

We are offering technical assistance to the project supporting the PRO BOLIVIA agency and other beneficiaries on the *Program for supporting the Productive Development with Decent Employment Sector Plan*. The focus is to improve productivity and employment quality in the Small and Medium Enterprises (SMEs) in prioritised sectors, through the improvement of management capacity, promotion of productive development and institutional strengthening.

ARGENTINA

Eptisa continued providing technical assistance services for the *Project to Improve Regional Economies and Local Development* to improve the quality of life in the community and support local development in ten disadvantaged regions in the country, located in the north-west and north-east. This programme will help to strengthen the capacities of the National Industrial Technology Institute (INTI), whose purpose is to bring technology closer to the Medium and Small Enterprises (SMEs) in the most underdeveloped regions.

Cadastre and Registry Regularization Program in Costa Rica



Haiti





Africa

During 2012, the presence of Eptisa in Africa has increased thanks to the new projects awarded in the social development sector, as well as water and health sectors.

The European Union awarded to Eptisa, within the consortium led by Transtec, the multi country contract *Strengthening Non-State Actors Capacities to promote National Reform and increase Public Accountability in the Neighbourhood South Countries* formed by **Morocco, Algeria, Tunisia, Libya, Egypt, Israel, Occupied Palestine Territory, Jordan, Lebanon and Syrian Arab Republic**. The purpose of this contract is to strengthen the overall capacities and accountability of the Civil Society and facilitate their involvement so as to boost their contribution to a political and institutional level. This means reinforcing existing initiatives to support Civil Society Organisations (CSOs) in the Neighbourhood South Countries, complemented with new elements, to increase their visibility and involvement in policy-dialogue at country level.

The overall objective of the Civil Society Facility is to increase the influence of Civil Society in the democratic configuration, both at national level and within the Southern Mediterranean region, and to stimulate a civil society-friendly environment and culture.

Eptisa, will carry out different activities to understand the role of CSOs in partner countries (at a legislative and operating context,); strengthening CSOs capacities; facilitating CSOs interaction and networking, amongst themselves, with national authorities and with international donors (especially at regional level); and highlighting their involvement and contribution to policy making.

In 2012 we continue carrying out the missions concerning the monitoring contract based on ROM methodology (Result-Oriented Monitoring) of the cooperation programmes and projects finance by European Union. As consultants, we are responsible for organising the monitoring of each project and preparing the reports concerned. The objective is to gua-

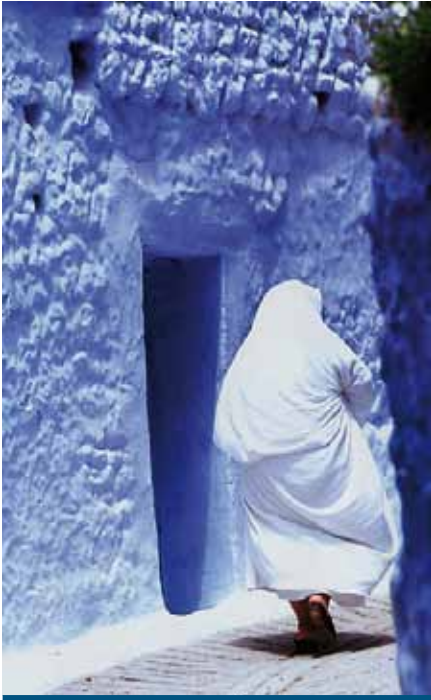
rantee an objective, impartial and rigorous quality control over the results of the European Union Aid and Cooperation Programmes in Africa.

MOROCCO

In 2012 we concluded the monitoring of the *Support Programme to Literacy and Adult Education Strategy*, offering technical assistance services to improve the economic, social and political participation of the most disadvantaged segments of the population, as well as the preparation for the future sector evolution, placing emphasis on the relationship between vocational education and employment development sector.

Projects Monitoring ROM services
in Africa





Strengthening Non-State Actors Capacities to promote National Reform and increase Public Accountability in the Neighbourhood South Countries

ALGERIA

In 2012 we were awarded a new contract to carry out the control of the detailed design and the works execution for a *Waste Water Treatment Plant in the city of Akbou* (Wilaya de BEJAIA) and its operation during a two years period. The new WWTP, with a capacity of 100, 000 equivalent inhabitants, will be based on a biological depuration (low load activated sludge) and it will include a full-treatment waste water line and other sludge treatment line.

Eptisa has also working on the contract of *Construction design of a 32.5 km section of the new single-track railway line Ralizane-Tiaret-Tissemsilt*, which will be 185 km long.

MOZAMBIQUE

In 2012 Eptisa was awarded with a new project financed by the European Union for the *Institutional Strengthening to the Ministry of Health: Support to the Development*



▲ TECHNICAL ASSISTANCE FOR INSTITUTIONAL STRENGTHENING OF MOZAMBIQUE'S MINISTRY OF HEALTH

Eptisa has been awarded a new project financed by the European Union, this time in Mozambique. The program is entitled *Institutional Strengthening of the Ministry of Health (MISAU): Support for the Development of Human Resources in the Fields of Health Care Management and Administration*.

By drawing upon the framework of the main outlines of the PESS 2007-2012 (Mozambique's Health Care Sector Strategic Plan) and the 10th European Development Fund for Mozambique, the overall objective of this project is to strengthen and develop the planning, management, and evaluation process in the health care sector, placing particular emphasis on infrastructures, as well as human, material, and financial resources. This will help improve the population's health conditions by equitably expanding high-quality basic health care services.

Eptisa, in consortium, will provide technical assistance services in order to strengthen management capacities in Mozambique's health care sector, aiming at achieving the following results:

- Drawn-up and/or updated curricula and training programmes will be put into place, according to the demand of the country's National Health System, in the fields of management and administration.
- Qualified trainers, both technically and methodologically, within the framework of health care management and administration training (higher-level trainers).
- The Health Polytechnic Medical Institute will be strengthened in order to enable it to teach high-quality courses that meet the demands of the whole public health network.
- A post-training monitoring and support system will be established for technicians working in the fields of health care management and administration.

of Human Resources for Health Sector Management and Administration.

The overall objective of this project is to strengthen and develop the planning, management, and evaluation process in the health care sector, placing particular emphasis on infrastructures, as well as human, material, and financial resources. This

will help improve the population's health conditions by equitably expanding high-quality basic health care services.

Corporate Responsibility



We are aware of the importance and dimension that acquires in the new economic-social context the CR and the matters related to sustainability, environment and social issues. Therefore we are working in three main lines towards to increase our responsibility for the social development, our commitment to our professionals, and respect for the environment.

Commitment to our professional

Anywhere in the world, all Eptisa's professionals have the support of a technical team of engineers, architects, economists, geologists, chemists, doctors, biologists, programmers, etc. working to innovate and improve services and place them at the service of the organization as a whole.

Throughout the organization, knowledge management plans encourage training, creativity and synergy among professionals to improve efficiency and productivity.

The purpose of the **Health and Safety policy** is to prevent accidents and improve the welfare of people in the workplace anywhere in the world.

Within the equal policy framework, the **Equal Opportunities Policy** has been designed in such a way that has contributed to the professional development of women in Eptisa and exemplifies the company's commitment towards the families.

Through a cooperation agreement with the **Adecco Foundation**, Eptisa

maintains an initiative called **Family Plan** to help employees with handicapped family members.

This programme of the Adecco Foundation, which is specialized in the integration of handicapped people in the labour life, has been incorporated to our conciliation policies. The employees with handicapped children, spouses, brothers or sisters aged between 0 and 65, can take part of accompaniment plans developed by the Adecco Foundation's selection consultants.

The personal attention to each beneficiary consists of orientation, assessment and the design of actions adapted to the needs of each participant that will be included in an accompaniment plans covering these areas: clinical/medical, family, social, training and labour integration.

In 2012 and as part of the company's social strategy in terms of **diversity** to include values favouring the social and labour integration of handicapped people both in society and in our company, awareness campaigns related to this matter has been designed.

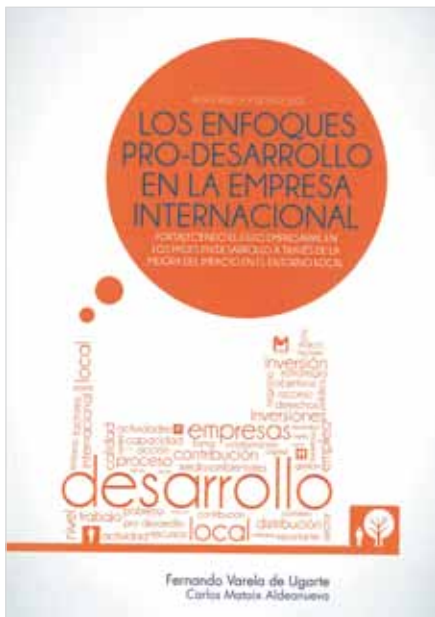
To enhance the integration of cultural diversity, workshops with all the international teams have been organized to share expertise, promote synergies and sense of belonging.

Commitment to the social development

The Board of Eptisa, knowing that social responsibility and labour conditions have a fundamental importance for the organization's development, actively promotes the responsibility of each employee in compliance with national and international laws regarding working conditions and respect for the community that interacts with.

In 2012, Eptisa successfully passed the audit and obtained the social responsibility management system certification in accordance with the **SA8000** international standard (Social Accountability International). Throughout the year we have developed the defined action plans to achieve the objectives, guaranteeing the international requirements of corporate social responsibility related with human rights and labour conditions.

Knowing that the company is a leading agent in the development of society, not only through the services, equipment and projects it provides, but also for the transfer of technical know-how, technology and management capabilities to the most impoverished parts of the planet, Eptisa has collaborated in a new book focused on the internationalization processes of the companies in developing countries, under the title “*Los enfoques pro-desarrollo en la empresa internacional*”.



The author and Director of the Development Cooperation Division of Eptisa, *Fernando Varela de Ugarte*, defends those business strategies better adapted to local contexts which are beneficial for both the society and company.

Through the more than 100 pages of the book and from his professional experience, he makes a reflection highlighting that the companies which have understood that their activity have to be adapted to the particularities of the local context and have been able to revise their strategies to generate greater value for the host society, have reduced the operational risks, impacting positively on the investment stability and therefore, in own business.

This book analyses the internationalization strategic approaches of the companies in developing countries,



emphasizing the way of adaptation to the local environment. And seeks to highlight the reasons why it makes sense to integrate “pro-development approaches” in business activity in the developing countries, providing the knowledge and experiences to implement them.

Eptisa, from its specialized **development cooperation** activity, is a point of reference in multilateral fund management and works with the main international development agencies.

Cooperation has many objectives, basically focussed on the fight against poverty, the scope of which necessitates the capabilities of very different agents, such as those of a highly technical nature, where engineering companies have very extensive know-how.

Eptisa’s strong points are its technical and management capabilities, the ability to identify and define technical solutions, its contribution to the improvement of the physical capital of people’s environment and swift response to requirements in the most demanding circumstances.

Eptisa’s business responsibility focuses on respect for a series of principles in its actions and projects, for example, esteem for local human and material resources, the population’s

sense of appropriation, empowerment of Meta groups, awareness and consensus of the various local participants, compatibility with local development processes and conservation of natural resources. As well as the complementarities with other participants that provide knowledge such as consultants, research centres, public institutions or universities. And of the role of NGOs, who have experience and knowledge of the dynamics of society.

Commitment to the environmental sustainability

Eptisa is committed to the environmental sustainability in two lines of action: the integration of sustainability values in our services and products as well as in the management of our buildings, operational and environmental performance.

In the transport sector we are committed to efficient, ecologically sustainable mobility, and maintaining the growth of the welfare state without over-exploiting the resources of the earth. In the building and energy sector, on energy saving and the search for new energy sources, designing energy efficient facilities and infrastructures, collaborating in different developing countries in the renewable energy development. And in the water sector, Eptisa is commit-

ted to improving people's access to water all over the world by providing engineering and project management services.

Within the internal environmental programme, goals were defined in 2012 in the framework of an Optimization and Cost Reduction Plan.

During 2012 we worked on a communication plan through the intranet, providing access to information from everywhere around the world. It has become a communication channel to share the best practices, improvement points and recommendations about the most efficient use of light, water, paper, etc.

Because of the increased awareness of staff, paper consumption was reduced by two per cent in eighty-five per cent of Eptisa's centres. The staffs increasingly use more recycled paper, write double sided and uses the Intranet and e-mail for communications.

Another goal was the one per cent reduction of electricity consumption in sixty-two per cent of centres. Within the Optimization and Cost Reduction Plan has been designed an efficient lighting project and reduced the use of heating and air conditioning.

We have achieved another two per cent reduction of water consumption in sixty-six per cent of centres. The awareness of the employees in reducing the water for hygienic use has been the main cause of this reduction

The programme included the drive to reduce the purchase of little needed or unneeded products including elements which will become rubbish after a time, such as, for example, products with too much packaging. The idea is simply to reduce the problem and the environmental impact.



Optimization and Cost Reduction Plan





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