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INNOVATION, EXCELLENCE, COMMITMENT

FROM THE CHILEAN ANDES TO THE ARABIAN DESERT

Saudi Arabia, Mexico, Colombia, Poland, USA, India... As can be seen in the selection of projects presented in our annual report, Idom is developing its activity across five continents.

Since Rafael Escolá founded Idom in 1957, the transformation of the company has been spectacular.

The ranks of the company have grown steadily and we have expanded our operations around the world. We have undertaken innovative projects that have allowed us to grow and become a cutting edge company with extensive knowledge of the state-of-the-art technology being used in such diverse fields such as energy generation, healthcare, the science industry, rail systems, logistics and many others.

However, we believe that it is important to maintain the core values of the company: the attention we give the client, and the importance of the persons of the company and their professional development.

In particular, from the very beginning, Idom has considered that proximity to the client is essential to deliver the quality service expected of us. Therefore, our teams are established wherever we have projects. While in some cases, this involves great effort on the part of the company and our personnel, we are certain that being close to the client is the correct way to understand their requirements and offer the best possible solution for their needs.

Fernando Querejeta
President

Luis Rodríguez Llopis
Managing Director

Photograph

View of the Andes from the offices of Idom in Santiago de Chile

Photography: Isabel García

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01

SOME PROJECTS

METRO RIYADH
ROADS RIYADH
COMBINED CYCLE POWER PLANT SAUDI ARABIA
INFORMATION SYSTEMS ABU DHABI
STEEL COMPLEX OMAN
COMBINED CYCLE POWER PLANT IRAQ

MIDDLE EAST

ACCELERATING THE DEVELOPMENT
OF TRANSPORT INFRASTRUCTURE

The kingdom of Saudi Arabia is on the fast track to modernization, much like many other countries in the Persian Gulf. Improving urban mobility in its cities is one of the country's priority objectives.

The infrastructure for private transport in Riyadh has been improving significantly — with some spectacular projects — such as new urban highways and arterial roads.

Public transport is also being enhanced. In addition to the introduction of new bus routes, bus rapid transit (BRT) and tramways; in the coming five years, one of the most outstanding additions to the public transport system will be completed: the Metro network.

METRO RIYADH

176 km NETWORK CONNECTING THE ENTIRE CITY

Within the framework of the priority objective of improving urban mobility, is the development of the new Riyadh metro. Spread over 6 lines, the future network will be approximately 176 km in length and will have 89 stations. Crossing the city from north to south and east to west, the network will include workshops and depots as well as several park&ride facilities at strategic locations. Given their elaborate design, some of the stations will be landmarks within the urban fabric of the city.

METRO RIYADH

The ArRiyadh New Mobility consortium, of which Idom forms part, was awarded the construction of Line 3. Idom is responsible for the design and construction project for the infrastructure, stations, workshops, depots, as well as the urban integration of the works.

Line 3 is 41 km in length, of which 4.6 km runs through tunnels, 23 km over a viaduct, and 13.4 km above grade. The line has 20 stations and 2 buildings for workshops and depots. Construction works are expected to begin on the tunnels in the first quarter of 2015.

The proper coordination between the different disciplines is one of the key elements of the project. Given the multidisciplinary nature of the team of Idom under the leadership of the professionals in the Saudi capital, this task being accomplished effectively and efficiently.

The project includes the basic and detailed design of twenty stations based on the various prototypes supplied by the customer. In the case of underground stations, it has been necessary to develop an entirely new prototype, to resolve the constraints imposed by the width of the narrow streets of the popular neighbourhood of Batha. This has been seen as an opportunity to increase the spatial quality of the stations and introduce natural light, in order to improve passenger orientation and experience.

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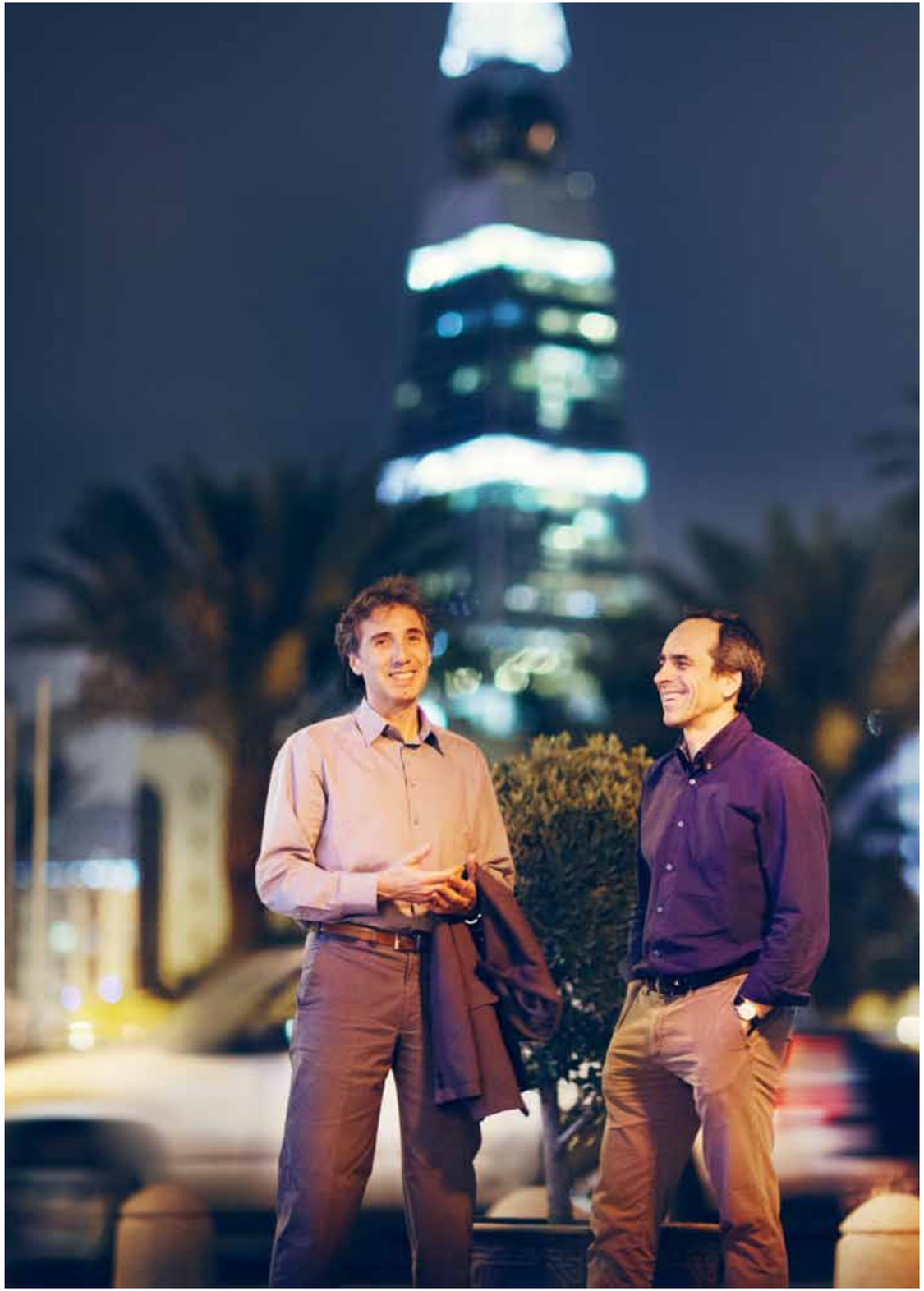
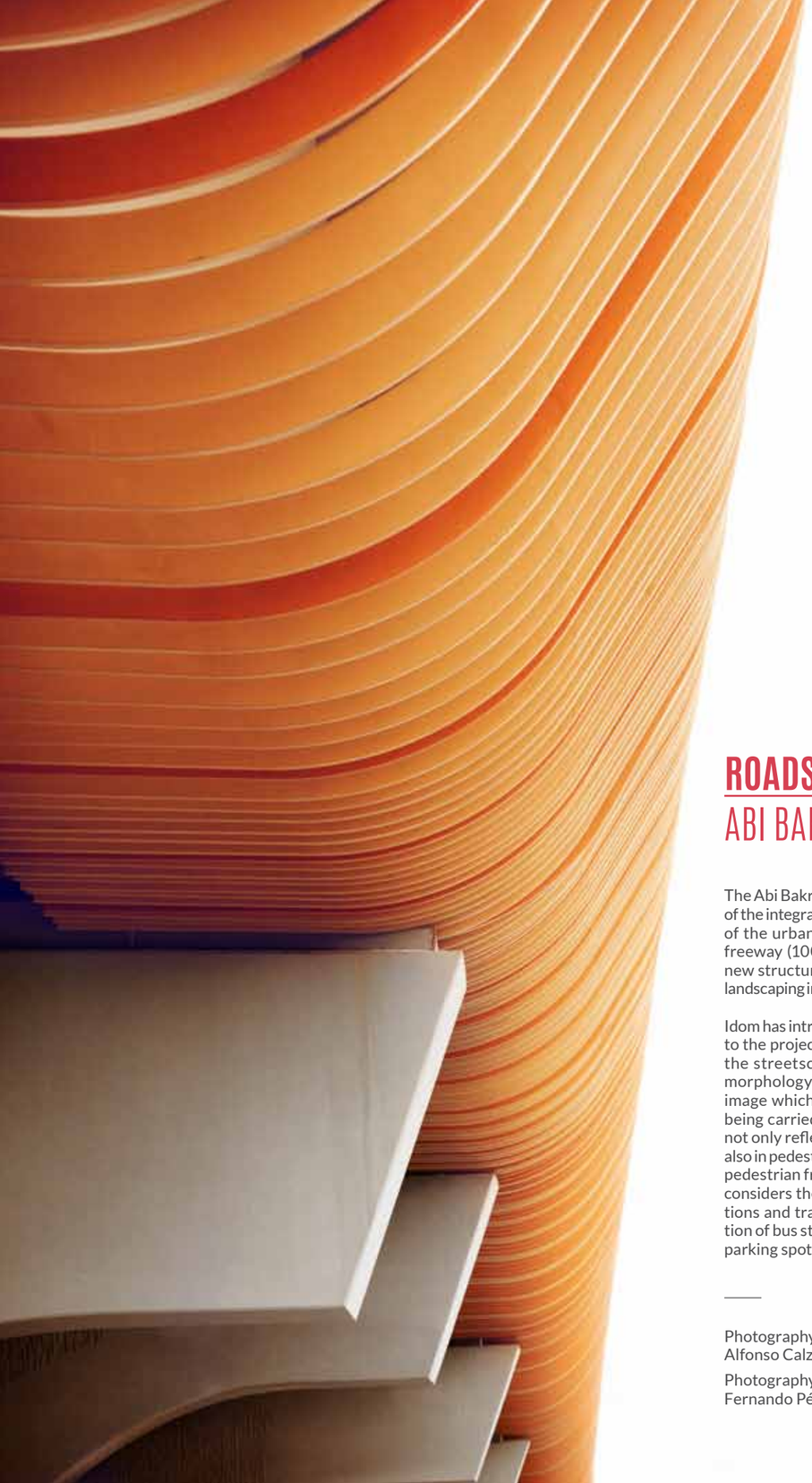
Infographic left page /
Metro Access

Photo right page /
Manel Sánchez & Javier Vergara in Riyadh





ROADS RIYADH
ABI BAKR AS SIDDIQE

The Abi Bakr as Siddiqe Road project consists of the integral transformation of 12 kilometres of the urban arterial road (80 km/h), into a freeway (100 km/h); including the design of new structures for 5 main intersections, and landscaping improvements for the project area.

Idom has introduced the concept of the "dune" to the project, to support a singular vision of the streetscaping project, reflected in the morphology of a unique bridge, creating an image which is representative of the works being carried out. Therefore, this concept is not only reflected in the main structures, but also in pedestrian walkways, side-medians and pedestrian friendly areas. The project design considers the integration of telecommunications and traffic control, as well as the location of bus stops, sidewalks and handicapped parking spots.

Photography: left & right top page / Alfonso Calza

Photography: Lower right page / Fernando Pérez

SAUDI ARABIA

PROJECTS OF THE SAUDI ELECTRICITY COMPANY (SEC)

PP10 3,700 MW & PP12 2,000 MW COMBINED CYCLE POWER PLANTS

In terms of population, Riyadh is one of the fastest growing cities in the world. On the outskirts of the city, one of the largest combined cycle power plants in history is being built. PP10 will have a nominal power of 3,700 MW.

Now that the first phase of the plant construction has been completed, works are well under way for the conversion of a simple cycle plant to a combined plant. These works are expected to be finalized in 2015. In this second phase, Idom is developing part of the engineering which is now well advanced, with over 85% of the work completed.

At ground level, much of the civil works have already been completed and the major equipment installed (HRSG, ACC, etc.).

In addition to the PP10 combined cycle power plant, 100 km west of Riyadh, another combined power plant is being built. When completed, PP12 will generate around 2,000 MW of electricity. The construction and commissioning of the plant is in the hands of the joint venture, BEMCO-GS.

The plant is divided into two blocks, each consisting of 4 gas turbines, a steam turbine, 4 recovery boilers for steam generation and an air condenser to cool the block. The primary fuel for the operation of the plant will be natural gas; although other fuels such distillate oil and Arabian Super Light crude (ASL) can also be used.

On this occasion, the joint venture, BEMCOGS has contracted Idom to perform the basic and detailed engineering of the entire combined cycle. Given the size of the plant and the planned execution time frame (2015), it can be said that this is one of the most ambitious projects of its kind.

Pictured / PP10 Combined Cycle Power Plant
Photo courtesy of BEMCO

PP10, ONE OF THE LARGEST COMBINED CYCLE POWER PLANTS IN THE WORLD,
40 GAS TURBINES & 10 STEAM TURBINES

GEOGRAPHIC INFORMATION SYSTEMS

FOR THE DEPARTMENT OF TRANSPORT

The Emirate of Abu Dhabi, one of the seven that make up the federal constitutional monarchy of the United Arab Emirates, has as its capital the city of the same name, a cosmopolitan metropolis with a high standard of living and a fast growing population.

Abu Dhabi is developing a strategic plan with a view to the year 2030, in order to guarantee infrastructure which is sustainable and in line with the desired quality of life of the citizen.

Within this plan, transport infrastructure must ensure the mobility and connectivity of the population through the development of new networks and modes of transport. Idom has been collaborating with the Department of Transport of Abu Dhabi since 2013 in the design and implementation of new applications based on GIS.

The GIS system being developed is conceived as an integrated platform which will facilitate the interconnection of more than twenty information systems, both within the Department of Transportation as well as external actors who directly influence the planning of transport.

Photography / Sophie James

OMAN STEEL COMPLEX

Jindal Steel & Power Ltd, the industrial multinational group of Indian origin has finalized the construction and commissioning of the integrated steel complex in the Port of Sohar, Sultanate of Oman. The engineering project began at the end of 2011. Last April, the hot start tests of the mill were conducted, and in May the first batch of billets were produced.

The new steel complex, for which Idom has developed the construction engineering, will produce 2 million tons of product annually while being continuously fed from the adjacent hot direct reduction iron plant (HDRI).

In addition to the steel meltshop, new facilities are being built at the plant, to complete the production process.

Photos courtesy of Jindal

THE NEW STEEL COMPLEX WILL HAVE THE CAPACITY TO PRODUCE 2 MILLION TONS OF SUB-PRODUCT ANNUALLY

ENR AWARD FOR IRAQ

On an annual basis, the magazine Engineering News-Record (ENR) awards the "Oscars" for engineering and construction

In May of 2014, the ENR Global Best Projects Awards were presented in New York. These awards, considered the "Oscars" of construction and engineering, are divided into 12 different categories.

In the Power/Industrial category, the award went to the Turkish company Çalik Enerji for the 1,250 MW Al Khairat Simple Cycle Power Plant in Iraq, ahead of the US-based giant Bechtel. Idom performed the engineering for the plant. In recognition of the excellent work carried out, Çalik invited Idom to be present at the gala awards ceremony.

Pictured on the lower left page /

Part of the project team. From left to right: Jon Agirre, Monica Ruiz, Itziar Clerigo, Javier Alonso, Carlos Cuadrado (Project Manager), Arkaitz Nocedal, Ianire Anaya, Iñaki Iglesias

Photography / Carlos Olmedillas

Upper photo /

Al Khairat simple cycle power plant

Photo / Courtesy of Çalik Enerji

MIDDLE EAST

SOME OF OUR RECENT PROJECTS

Saudi Arabia, Riyadh

Conversion from a simple to a combined cycle power plant of the Saudi electricity company for BEMCO PP10CC (3,700 MW). *Basic and detailed engineering*

Saudi Arabia, Riyadh

PP12 (2,000 MW) Combined cycle power plant of the Saudi electricity company for BEMCO. *Basic and detailed engineering*

Saudi Arabia, Riyadh

Riyadh Metro line 3 for the Arriyadh Development Authority. *Project design and construction of infrastructure, stations, workshops and depots and urban integration*

Saudi Arabia

Aluminium rolling mill as part of the integral project developed by MAADEN and Alcoa for Samsung Engineering. *Civil and detailed engineering*

Saudi Arabia

Closing the open cycle of the Saudi Electricity Company Hail 2 plant using four boilers and a steam turbine for AL-TOUKHI. *Basic and detailed engineering*

Saudi Arabia, Riyadh

Data centre for the Saudi Aramco 1 MW photovoltaic plant in Dhahran. *Basic engineering and costing*

Saudi Arabia, Riyadh

Design of road infrastructure for the Arriyadh Development Authority (ADA). *Basic and detailed design and construction*

UAE, Abu Dhabi

Geographic Information System for the Department of Transport of Abu Dhabi. *Consulting services*

UAE, Abu Dhabi

New aluminium extrusion plant with a production capacity of 30,000 TPA of billets & 50,000 TPA of extruded profile billets. *Detailed engineering of the civil, electrical, and piping works*

Iraq, Al Khairat

Al Khairat 1,250 MW simple cycle power plant for ÇALIK Enerji. *Basic and detailed engineering*

Jordan, Amman

New landfill cell for municipal waste for the Greater Amman Municipality (GAM). *Detailed engineering services*

Jordan, Amman

Landfill gas extraction & energy recovery for the Greater Amman Municipality (GAM). ***Technical assistance***

Oman, Sohar

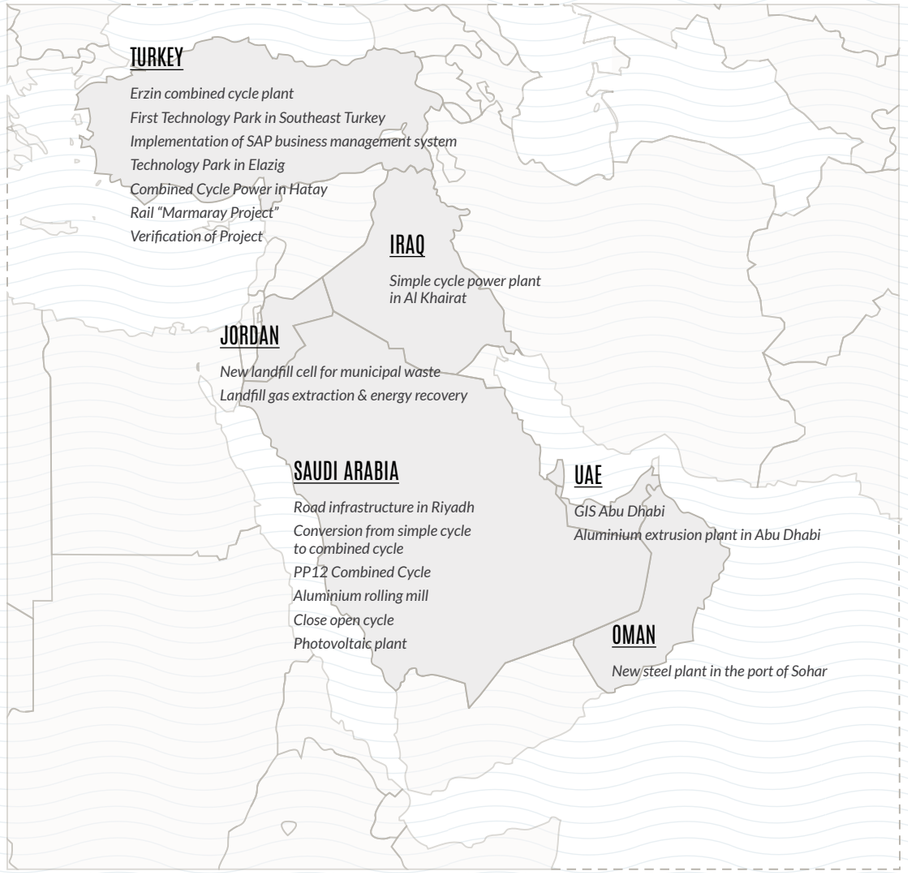
New steel mill with capacity to produce 2 million tons of product, located in the Port of Sohar for JINDAL SHADEED IRON & STEEL. *Engineering services*

Turkey, Hatay

Erzin 871 MW combined cycle power plant with two GE 9FB gas turbines, a Skoda MTD 60 steam turbine, and seawater fed cooling tower for GAMA-GE.*Basic and detailed engineering*

Turkey, Elazig

Innovation, technology transfer, business and training plans for 45 SMEs, and the marketing for the launch and internationalization of the first technology park in Southeast Turkey. *Consulting services*



02

SOME PROJECTS

METRO ALGIERS
TRAMWAY CONSTANTINE
DIGITAL TELEVISION ALGERIA
ROAD ITS ALGIERS
COMBINED CYCLE POWER PLANT LIBYA
CITY & REGIONAL DEVELOPMENT ANGOLA
HISTORICAL SITES EGYPT
WATER DESALINATION GHANA
OTHER PROJECTS

AFRICA

COMMITMENT TO MODERNIZATION

Algeria has excellent potential to develop the ambitious modernization process that has been proposed. One of the leading producers of oil and gas in Africa, in terms of GDP per capita it is the third largest economic power. The commitment to improving infrastructure, industrialization, public amenities and, ultimately the progress of the country, will lead to a rapid increase in the standard of living of the inhabitants. Idom is collaborating in this process, designing transport and road infrastructure, telecommunications solutions, industrial projects, etc.

Pictured / The city of Constantine
Photos of Algeria, Alfonso Calza

The public company Métro d'Alger, is undertaking an ambitious Extension Plan, increasing the current line 1 (8.2 km) in operation to a network of 55 km with more than 55 stations.

The project developed by Idom is for the Ain Naadja-Baraki section. With a length of 6.2 km and 6 new stations, this section will serve two densely populated districts giving them access to the city centre.

This extension includes an important Transport Interchange connecting with traffic entering the city from the south and enabling connection to the suburban train line of the SNTF (Société Nationale des Transports Ferroviaires) at the Gare de Ain Naadja station.

Pictured / Khaled Bouzghaia, Jokiñe Uriarte & Amar Daoudi

ALGERIA
ALGIERS METRO

The Ain Naadja – Baraki alignment of the Algiers metro developed by Idom can be characterized by its intermodality resolving some unique challenges such as the intersection of the Oued El Harrach river basin where the track will run over a viaduct, and the intersection under the Radiale de Baraki highway.

This integral project has considered all the technologies that will be required for the definition of future works, from civil engineering, urban integration, demand, studies on operations, and all the necessary for the section electrification, signalling, telecommunications equipment and commercial management. The work carried out by Idom also includes an analysis of the structure of the future network and the energy supply strategy.

The project includes the architectural and structural design of the six stations of the line extension. Four of these stations will be underground and the remaining two will be located on the El Harrach viaduct. In the district of Ain Naadja, the Mohamed Boudiaf station will be accessed from the market and the El Rahmane mosque, and will have an area to facilitate interchange with urban buses. In the same district, an important transport interchange will be developed between incoming traffic from the south the suburban train line. This will be an intermodal building, a single space linking all means of transport (metro, train, buses, taxis and private vehicles). There will also be parking for 500 vehicles.

In the coming years, a large urban park will be constructed along the Oued El Harrach river basin. The Future Parc Urbain metro station will be located here.

The other three stations will be located in the district of Baraki. The first of these stations, Mohamed Belarbi will serve as a transport interchange station, linking the metro system with a busy bus station with parking for 200 vehicles. The second, Le Jardin, will serve the urban park which will be the nerve centre of the district. Finally, the Cité 2004 station will provide service to the eastern part of the district. Idom has also carried out works on the superstructure of the tracks, power supply, signalling, telecommunications, and centralized command as well as diverse electromechanical equipment.

Infographics / The Visual Plan - Antonio Blanco & Daniel Roris

WITH A LENGTH OF 6.2 KM, THE PROJECT OF IDOM ALSO INCLUDES THE CREATION OF 6 NEW STATIONS

TRAMWAY OF CONSTANTINE

LINKING TRADITION AND MODERNIZATION

28 HECTARES OF URBAN PLANNING ALONG THE 13 km TRACK

ALGERIA
TRAM CONSTANTINE

Constantine is the third largest city in Algeria and is located in a privileged enclave protected by deep ravines. The city has a rich historical and cultural heritage which includes its many bridges.

A commitment has been made to implement the tramway as a public transport system capable of renewing the urban configuration and forms of mobility; with the objective of interconnecting almost a million persons who reside in the Zouaghi, Ali-Mendjeli and El Khroub districts, thereby, contributing to the transformation of the historic city of Constantine as an international cultural destination.

Idom is developing the detailed design of the extension of Line 1, and will be responsible for the construction works supervision. Idom is also carrying out the study of the extension of the line to the city of El Khroub.

The projects combine respect for the historical tradition of Constantine with a commitment to modernization, a perfect example of the investment effort being made by Algeria to update the country as a whole.

Photos /

Left page / The current line in operation
Right page / Idom's design for the line extension

Infographics / Poliedro

ALMOST ONE MILLION PERSONS WILL BE CONNECTED, CONTRIBUTING TO THE TRANSFORMATION OF THE HISTORIC CITY OF CONSTANTINE TO AN INTERNATIONAL CULTURAL DESTINATION

ALGERIA
DIGITAL TELEVISION

TDA (Télédiffusion d'Algérie), a public company responsible for the dissemination and distribution of TV and radio (AM/FM) in Algeria and abroad, is undergoing a process of technical and commercial development. The main strategic line of action is the total implementation of Terrestrial Digital Television in 2015 and the move towards a new future, providing value-added services on the network. Meeting this challenge requires not only upgrading and modernizing the technology of the current infrastructure, but also the operations processes and management procedures.

In terms of technical, regulatory, operations, and organizational aspects, Idom is working with TDA in the process of upgrading the technology to define the new scenario. We have been contracted to define the digital transport network based on radio links, as well as the network and operations management platform of the system, for more than 100 locations spread across the northern area of the country.

UPGRADING THE COMMUNICATIONS NETWORK WILL POSITION TÉLÉDIFFUSION D'ALGÉRIE AS THE LEADING COMPANY IN THE IMPLEMENTATION OF DIGITAL TELEVISION

Left page /

TDT relay at the Mártires monument (Maqam Eshahid) of Algiers

Right page /

View of Algiers

ALGERIA

ITS HIGHWAYS

INTELLIGENT TRANSPORTATION SYSTEMS

440 KM WITH ITS TO IMPROVE THE MOBILITY AND SAFETY OF USERS

The East-West Highway is one of the main roads of Algeria. Running 1,216 km from the Moroccan border to the Tunisian border, the highway crosses different wilayas (provinces) in the northern costal stretch of the country, connecting the major cities. In the future, the highway will form part of the Trans-Maghreb highway connecting five countries in North Africa.

This project is the first of its kind in Algeria, as the East-West Highway will be equipped with a state-of-the-art Intelligent Transport System (ITS). As the leader of the consortium formed with the Lebanese company Dar Al-Handasah Consultants (Shair&Partners), Idom is working on the eastern side of the highway, the section between the cities of E-Taref and Bordj Bou Arréridj. Stretching 440 km, this section includes three tunnels. One of these is the Skidda tunnel which at 2,500 m is the longest in the national highway network.

Idom is working with AGA (L'Algérienne de Gestion des Autoroutes), carrying out the control supervision and monitoring of the installations and the equipping works of the operations facility.

Pictured / **East-West Highway** passing Constantine

LIBYA SIMPLE CYCLE POWER PLANT IN KHOMS

Some 120 km from Tripoli, in the municipality of the city of Khoms, the Turkish company Çalık Enerji is building a 525 MW single cycle power plant.

The plant is integrated within an existing power plant and is initially designed as a simple cycle plant, although in the future it is expected to be extended to a combined cycle power plant.

The power plant will be equipped with two GE 9FA.03 gas turbines. The primary fuel for the operation of the plant will be natural gas and light distillate oil will be used as backup fuel. The plant which will generate around 8% of the installed capacity of the country will give the region a socio-economic boost through the creation of new jobs.

Once again, Çalık Enerji has relied on Idom for the development of the basic and detailed engineering of the plant.

Infographics / Íñigo Gutiérrez Artetxe

THE PLANT WILL GENERATE AROUND 8% OF THE TOTAL INSTALLED CAPACITY OF THE COUNTRY

LEADING SUSTAINABLE DEVELOPMENT IN AFRICA

Unprecedented economic growth and social stability has resulted in the Angolan authorities making significant investment in strategic projects to position the country and more specifically its capital, Luanda, as an urban model of reference in Africa, according to the principles of an equitable, efficient and productive city.

ANGOLA

Pictured / The Bay of Luanda
Photos of Angola: Carlos Olmedillas

ANGOLA URBAN TRANSFORMATION IN LUANDA

This large-scale project undertaken by Idom in Angola involved the Urban Transformation of 10 neighbourhoods in the capital Luanda. The scope of the project covers an area of over 2,500 ha in the city of Luanda. Some 650,000 inhabitants will see a substantial improvement in the quality of their life.

The project, following the recommendations of the United Nations for urban development, will strengthen the socioeconomic structure of proximity, integrating new housing, mixed-use facilities that generate employment, improving sustainable mobility, extending the provision of services, and implementing urban infrastructures.

A programme of future emblematic actions has been defined. These actions are necessary to revitalize and strengthen the competitiveness of the city. A management scheme has also been designed which focuses on the reinvestment of the capital gains generated, ensuring that urban improvement will be continuous and sustainable.

RESETTLING OVER 15,000 RESIDENTS, IMPROVING QUALITY OF LIFE

ANGOLA NATIONAL DEVELOPMENT PLAN

The National Development Plan of Angola includes important infrastructure projects that will allow the country to make the leap from being a country with potential to being a truly rich nation. Actions included in the plan involve major improvements to the structural characteristics of the territory, including urban planning and sanitation for the capital Luanda.

Within the Sanitation Plan, the projects designed by Idom are the corner stone of the city's sanitation system: the central wastewater treatment plant (WWTP), the north-south interceptors, and a submarine emissary.

In addition, the project includes a training program for institutional and technical personnel, creating tools to improve the management and monitoring of the works as well as the commissioning of the infrastructure.

The WWTP which is located in the Samba district, has a catchment area of 6,500 hectares, and includes the discharge districts: Samba, Maianga, Ingombota, Rangel and Sambizanga, serving in the future, a population of 1.75 million inhabitants. A primary treatment line has been designed with a capacity of 8.50 m3/sec, completing the treatment process with discharge and dilution into the sea through a submarine outfall. The surface area of the plant is in the order of 8.5 hectares and the possibility has been considered of completing the construction and entry into service in two phases, as well as the possible expansion to include secondary treatment.

The submarine emissary is 2,400 m in length, using a HDPE conduit with a 2,000 mm internal diameter, anchored to the seabed. The discharge point is located at the Mussulo bay, at a depth of 45 m. Discharge takes place through nozzles which permit a higher initial dilution and therefore greater reduction in pollution. With these measures, the quality of water is ensured for the swimming areas of Ilha do Cabo located on the northern coast.

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Right page /

Gonçalo Sanches & Ricardo Cavada, Engineers from Idom along with Zenilda Mandinga, Technical and Environmental Director of the UTGSL

Photography / Carlos Olmedillas

1.75 MILLION PEOPLE WILL BENEFIT FROM THE WASTEWATER TREATMENT PLANT

Infographic upper right page /

Idom's design for residential buildings

Authors / Roberto Fernández de Gamboa & Alfonso Álvarez

Infographic lower right page /

Wastewater treatment station

Iñigo Gutiérrez Artetxe

EGYPT

PRESERVING HISTORICAL AND CULTURAL HERITAGE

The objective of the project is to improve the different archaeological sites of Giza, the West Bank (Valley of the Kings, Hatshepsut, Ramesseum, Medinet Habou and Carter House), and the Temple of Luxor. The project forms part of the strategy of the Government of Egypt to reopen international tourism, improving the experience of visitors.

After defining the project and the purchase of related equipment; last year, the implementation works commenced. Today, the illumination or lighting works have been completed for the temples of Luxor and Ramesseum and the tombs of Ramses VI (KV2) and Seti I (KV 17) in the Valley of the Kings. The work is continuing on the improvement of the illumination for the monuments of the temples of Medinet Habou and Hatshepsut.

At the same time, the security works in the temple of Luxor are at the integration phase, and the civil works on the Giza plateau have begun.

Idom is collaborating with the Spanish public company Defex, in the development of the project providing technical assistance for the supply, installation and integration of the systems.

NIGHT VISITS OFFER A NEW WAY OF CONTEMPLATING THIS PHARAONIC INHERITANCE

Pictured/ New illumination of the Ramesseum Temple of the West Bank monument (Luxor)

Photography / Sergio Llamosas

GHANA WATER DESALINATION

The growing demand for water in Ghana, added to a forecasted reduction of this resource in the country's rivers for the coming years, prompted the Government of the Republic take measures to alleviate shortages in supply.

In 2011, the Ghanaian public water company (Ghana Water Company Limited) signed a $125M contract with the multinational company Abengoa Water for the construction and operation of a desalination plant seawater for a 25-year period. Operational in 2014, the plant will have capacity for the daily production of 60,000 m3 of potable water to supply a population of 500,000 inhabitants.

In 2011, the Abengoa Group, through its affiliate Abeinsa EPC contracted the services of Idom to perform the detailed engineering of the desalination plant.

This important reference project along with past projects has served to strengthen the position of Idom in the field of water desalination.

Infographic left page /

Aerial view of the facilities

Infographic right page /

Infographic recreation of the interior of the desalination plant

Author / Iñigo Gutiérrez Artetxe

SUPPLYING 500,000 INHABITANTS WITH 60,000 M^3 OF POTABLE WATER DAILY

AFRICA

SOME OF OUR PROJECTS

Angola, Luanda

Urban regeneration of 10 neighbourhoods for Cedrus Limitada, National Unit for sanitation of Luanda. *Regeneration plans and urban planning, services and urban infrastructure*

Algeria

Installation of ITS equipment in the east-west highway of Algeria (Bordj Bou Arreridj - El Tarf section) for AGA (L'Algérienne de Gestion des Autoroutes). *Project review, control and monitoring of the implementation*

Algeria, Djelfa

1,250 MW combined cycle plant with four gas turbines and two steam turbines in addition to four heat recovery boilers for Duro Felguera. *Basic and detailed engineering, Environmental Impact Assessment*

Algeria, Jijel, Bellara

New direct reduction iron and steel rolling mill for Algerian Qatari Steel. *Preliminary studies for construction (logistics and environmental assessment) and assistance in the contracting process for the works of the 2M t/year*

Algeria

Design of new telecommunications services and new transmission network to implement Digital Terrestrial Television (DTT) for TDA (Télédiffusion d'Algerie). *Consulting services & project design*

Algeria, Bellara

Development of a logistics model for the plant, rail and port operations for the Bellara steel complex for Algerian Qatar Steel (AQS). *Services for the optimization of operations*

Egypt, Cairo

Interoperable contactless charging system for the Egyptian Company for Metro. *Supervision of the implementation in Lines 1 & 2 of the metro and interoperability with the new Line 3*

Egypt, Giza, Luxor

Lighting, security, conservation, and visitor management system to improve the archaeological sites for DEDEX. *Management, engineering and integration services and support assistance in the implementation*

Ghana, Accra

Seawater desalination plan for Abeinsa EPC. *Basic and detailed engineering*

Libya, Khoms

525 MW simple cycle power plant for Çalik Enerji. *Basic and detailed engineering services*

Morocco, Tangiers

Support in the design of the industrial plan, definition of the location of the assembly, operations and logistics plants for Alstom Wind Spain. *Logistics and operations consultancy services*

Senegal

Extension of the Alione Diope and Gaston Berger Universities for the Ministry of Urban Development and Housing (Le Ministère de l'urbanisme de l'habitat). *Integral management of the design and construction, architectural design and engineering, and supervision of works*

South Africa, Noblesfontein

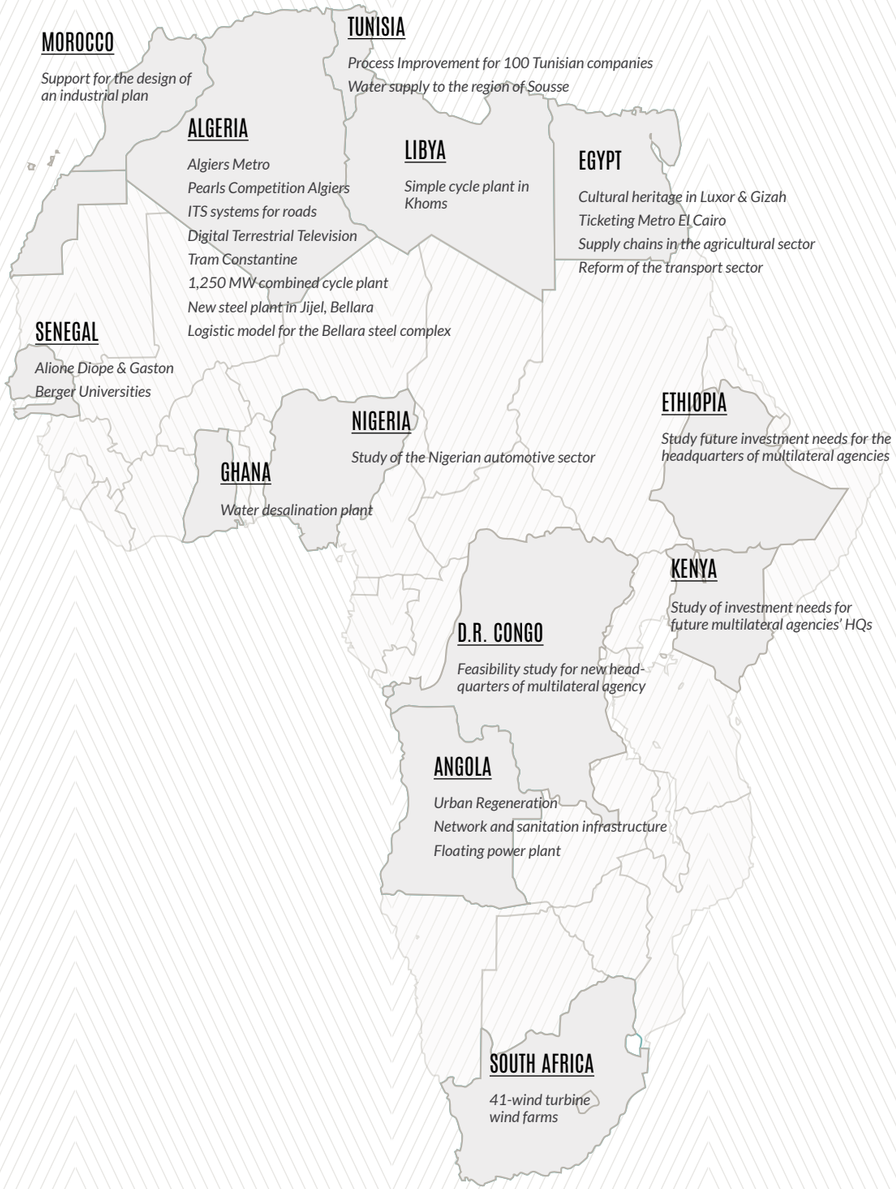
1.8 MW wind farm with 41 turbines for Gestamp Wind. *Technical assistance for the field and laboratory work and supervision of the geotechnical study*

Tunisia, Sfax, Sousse & Monastir

Improving the innovation and technological processes and the export capacity of 100 Tunisian companies for the Ministry if Industry and Technology. *Consulting services*

Tunisia, Sousse

Drafting of the Master Plan for potable water and preliminary design of the supply network for the region of Sousse. The distribution network extends over 8,800 km and supplies over 400,000 inhabitants. *Analysis, diagnostics and digitalization of the network and the development of the hydrological model*



03

SOME PROJECTS

ITER RESEARCH COMPLEX FRANCE
SERIDOM. TURNKEY SERVICES SPAIN
LIFE PROGRAMME EUROPEAN UNION
TRANSPORT CROATIA
RAILWAY SAFETY SPAIN
SAN MAMES STADIUM SPAIN
HISTORICAL ARCHIVE SPAIN
OTHER PROJECTS

MEDITERRANEAN EUROPE

THE INTERNATIONAL ITER PROJECT

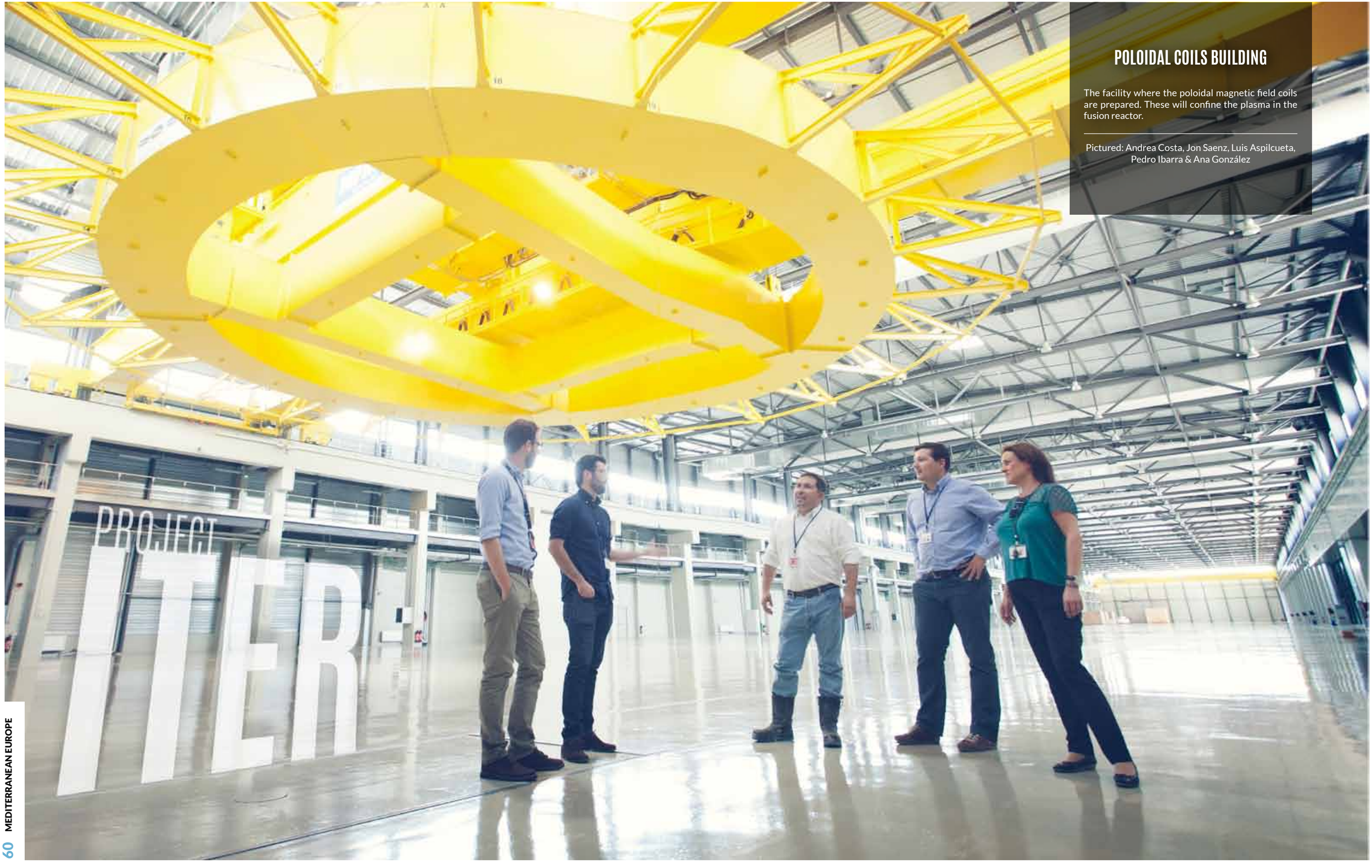
ITER (International Thermonuclear Experiment Reactor) which also means "the way" in Latin, sets out to demonstrate that nuclear fusion, as is generated in the Sun or stars, may be the energy source of the future. Idom is collaborating in this project, in consortium with CH2MHill and Altran Technologies, providing technical assistance and owners engineering services in the design and construction phases of the complex. In addition, we are also carrying out various engineering designs for the Tokamak fusion reactor.

FRANCE

"ITER is currently the largest international scientific energy research project in the world"

Gaspar Pérez Saitua
Industrial Engineer

Pictured: Jon Saenz, Andrea Costa, Luis Aspilcueta & Gaspar Pérez
Photos of the ITER Project / Alfonso Calza



POLOIDAL COILS BUILDING

The facility where the poloidal magnetic field coils are prepared. These will confine the plasma in the fusion reactor.

Pictured: Andrea Costa, Jon Saenz, Luis Aspilcueta, Pedro Ibarra & Ana González

THE ITER PROJECT

Owner's engineering

Idom has carried out the review of the engineering project, the assessment of compliance with the technical requirements of ITER and the status with respect to the French nuclear policy. Idom is also working together with Fusion for Energy (F4E) on the budget review, planning, risks and other aspects of the project, within the scope of F4E's ambit; representing Europe in the ITER Project.

Idom has been working on the ITER project for the last 5 years. In recent months important progress has been made in laying the foundations for the Tokamak Complex, and work has advanced on the electrical substation and the Poloidal Field Coils Building. The professionals of Idom who are based on-site are dealing with different areas of specialization – HVAC, instrumentation and Control (I&C), architecture, interface management, construction support. Back-office support is also provided from the offices of Idom during the different phases of the project that require special dedication to meet the commitments.

TOKAMAK

Seismic isolation of the reactor building

The group of buildings known as the Tokamak Complex are at the heart of the ITER project. These are the buildings that will house the fusion reactor. In late August 2014, the concrete was poured for the last sector of the upper basemat slab. This slab is 1.5 meters thick and has been laid on seismic isolators. All the buildings that make up the Tokamak Complex will be built on this slab.

Given that there is only one opportunity to pour the concrete, all controls have been carried out and validated. This is an important milestone for ITER, as it marks the completion of the Seismic Isolation Pit, concluding the first construction phase of the Tokamak Complex.

INTEGRATION DESIGN OF HIGH TECH SYSTEMS INTO ITER PORTS

Idom has signed a contract with Fusion for Energy (F4E) for engineering integration of the next generation diagnostic instruments into the ITER ports. These state-of-the-art instruments will measure the larger plasma generated by the fusion device.

To carry out this work, Idom will collaborate with specialized laboratories in Europe, Japan, India, China and the United States, and develop the complete design of the ports that must house and protect diagnostic equipment under extreme operating conditions while also shielding other components against neutron radiation.

"WE HAVE COMPLETED THE SEISMIC ISOLATION PIT, THE FIRST PHASE OF THE TOKAMAK COMPLEX"

Luis Aspilcueta
Civil Engineer

A MAJOR INTERNATIONAL PROJECT WITH THE PARTICIPATION OF

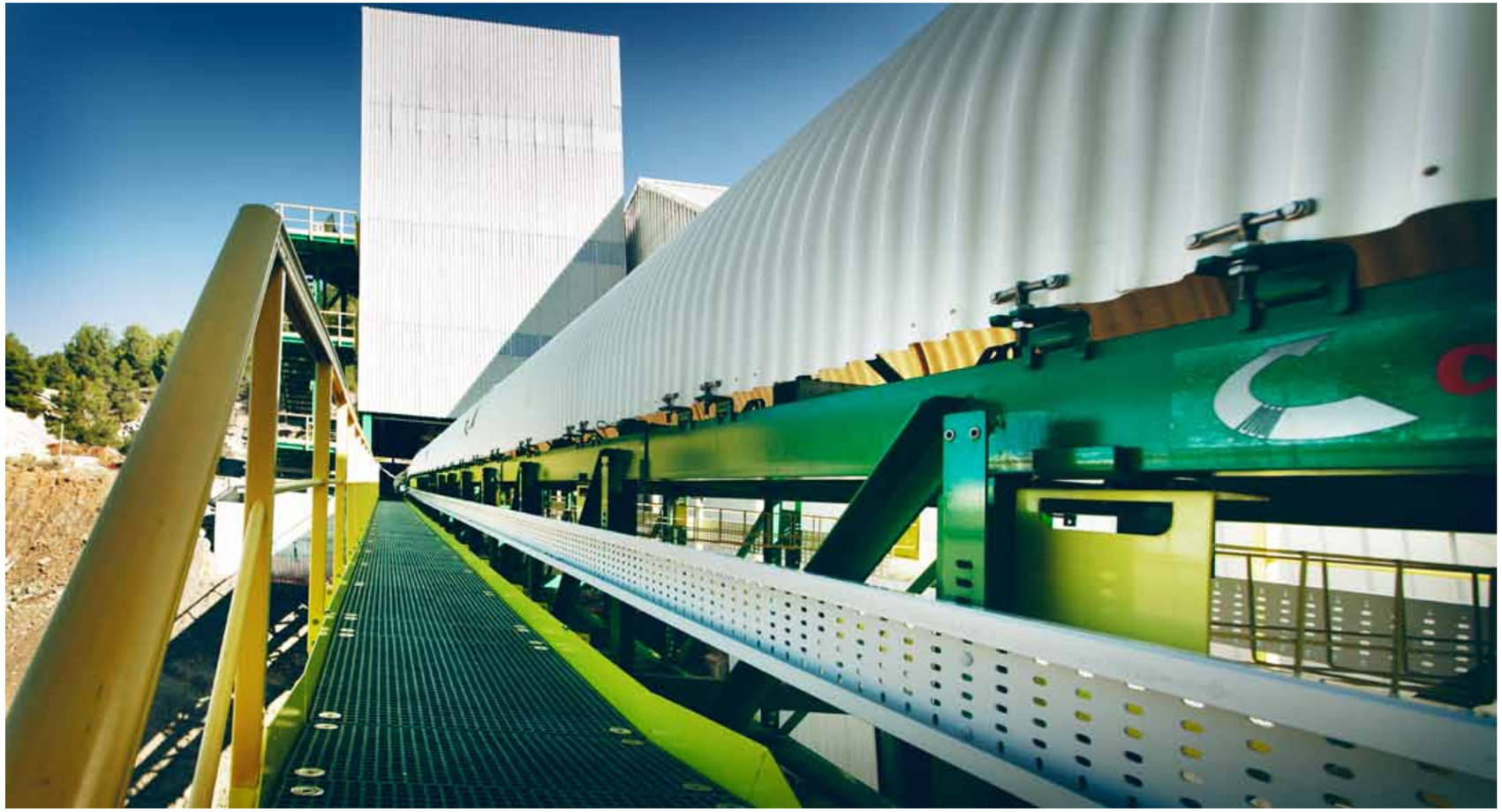
THE EUROPEAN UNION, USA, RUSSIA, JAPAN, SOUTH KOREA, CHINA & INDIA

5,000 SCIENTISTS from all around the world

39 BUILDINGS make up the complex

Pictured /

Installing the steel reinforcement for the B2 slab of the Tokamak complex, on which the world's largest fusion reactor will be built.



SERIDOM TURNKEY SERVICES

Construction of a Potash Flotation Plant in Súria, Barcelona

From the early 20th century, ICL Iberia Súria & Sallent, formely Iberpotash S.A., has been engaged in the extraction, processing and commercialization of sodium and potassium salts in the area of the Bages in Catalonia. Potash is a natural fertilizer, essential for agriculture worldwide.

ICL Iberia is undertaking an expansion plan (the PLAN PHOENIX), involving the improvement of the industrial and mining facilities in Súria. The project, which will be a boost for the economy of the region, will be developed in several phases. The first phase involves the expansion of the Sylvinite Treatment Plant in Súria, to increase the production of potash twofold, from 0.5 million t/yr to 1 million t/yr.

The Sylvinite Treatment Plant was awarded to SerIDOM on a turnkey basis. The construction and assembly works have already commenced and the Plant is expected to be fully operational at the end of 2015.

The construction of this Plant is particularly complex as it involves integrating the new buildings and installations with the existing ones, without interrupting production at the plant.

Equipped with the latest technological innovations, the plant will obtain a rate of potash recovery comparable to the highest industry standards.

Photos /

The new potash extraction facilities

Photography / Alfonso Calza

EUROPEAN UNION
LIFE PROGRAMME

The programme facilitates the management of natural resources, nature conservation and sustainable land management.

The LIFE Programme was conceived by the European Commission as a tool to support actions/projects to be developed in the different countries of the European Union to strengthen the implementation of environmental policies and European legislation concerning: waste, water, noise, environment urban, coastal zone management, safeguard habitats and species, combating climate change, and eco-innovation…

While these projects cover a wide range of topics, they all contribute to the better management of natural resources, nature protection and more sustainable land management. Some of these projects have dealt with the recycling of flows of waste that, to date, has not been possible; reconcile agriculture with a respect for the environment, or promote the existence of more sustainable cities. At the same time, this program has contributed to the recovery of endangered species such as the Iberian imperial eagle, the vulture, the adouin gull, the brown bear and the Iberian lynx, as well as the establishment and consolidation of the Natura 2000 Network.

Idom has worked for the European Commission since 2005, monitoring the Life Programme, carrying out the technical and financial control of all approved projects in Spain and Portugal. More than 20 professionals of Idom are developing this work.

Recently, the contract to continue this work has been renewed for the consortium consisting of Idom, NEEMO, and the Global Ecology Education Initiative (ISSG). Idom is a founding member of this consortium.

Left page upper photo /

LIFE BEAR DEFRAGMENTATION. Defragmenting the habitat of the brown bear (Ursus arctos) in the Cantabrian mountains

Author / Fundación Oso Pardo

THE PROGRAM HAS RECOVERED SPECIES UNDER THREAT OF EXTINCTION SUCH AS THE IBERIAN LYNX OR THE BROWN BEAR

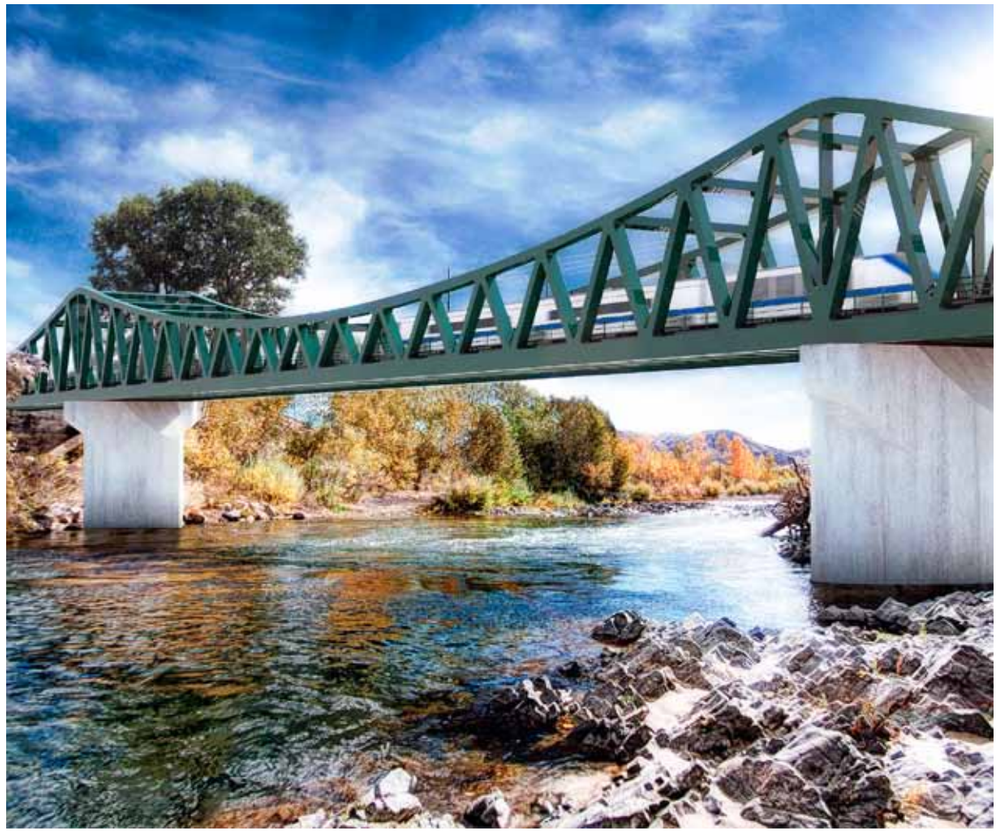
Left page lower photo /

LIFE CONNECT. Creating a network for recharging electric vehicles using renewable energy

Author / Dimas Ramos

Right page photo /

Author / Judy Kennamer



CROATIA STRATEGIC PLANNING OF THE TRANSPORT SECTOR

In July 2013, after a decade of political and economic adjustments, Croatia became the 28th country to join the European Union as a full member. The country is scheduled to join the Schengen area in 2015.

The geographic position of the country, boarding the Adriatic Sea and in close proximity to other candidate countries for accession to the Union, mean that Croatia is a high-value crossroads in the extension of the Trans-European Transport Network (TEN-T). This is a programme of the European Commission that aims to increase the cohesion and interconnection of all the territories of the Old Continent.

Idom is actively working on the transformation of the country by developing the Transport Strategy of the country, carrying out the designs for improvement and track duplication (the Krizevci-Koprivnica-National border section and the Vinkovci-Vukovar section) as well as conducting a preliminary study of the construction of the new railway container terminal and the reconstruction of the existing rail freight station at the port of Rijeka.

Left page /

The port of Rijeka, where Idom is reconstructing the existing goods station

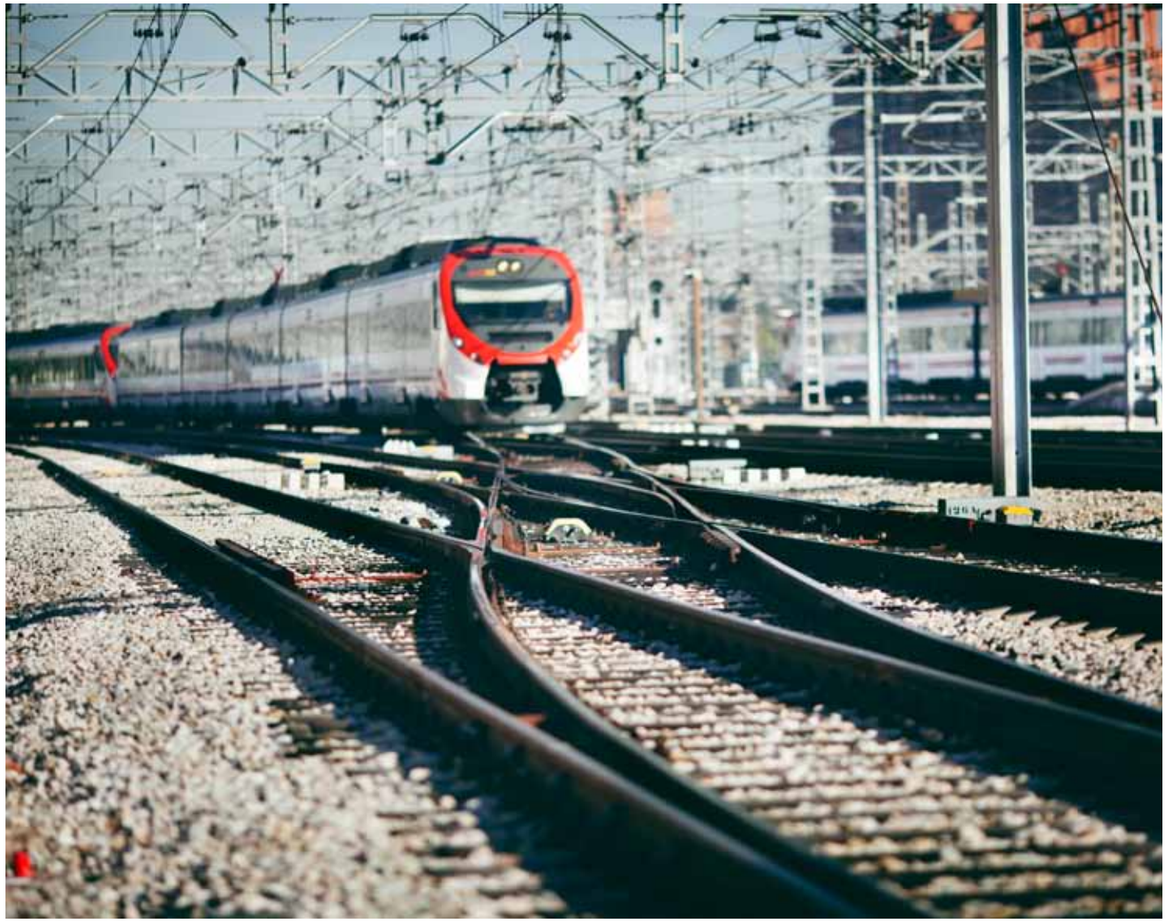
Author / Leonid Andronov

Right page /

Infographic recreation of the rail Koprivnizca-Botovo line infrastructure on the Drava river

Author / Íñigo Gutiérrez Artetxe

IDOM IS ACTIVELY COLLABORATING IN THE TRANSFORMATION OF THE INFRASTRUCTURE OF THE COUNTRY



SPAIN RAILWAY SAFETY

New Training Simulator for Rail Traffic Controllers

The training and retraining of traffic controllers is a priority objective to ensure safety and efficacy in the management of railway systems.

It is with this in mind, that the Railway Infrastructure Administrator (ADIF) has promoted the development of a training simulation system.

The first of its kind, this system will dynamically reproduce operating situations of high complexity and which require the intervention of an entire set of actors and the application of legislation relating to the Spanish rail system.

ADIF has contracted the Idom-Telvent joint venture to develop a simulator which includes an automatic evaluation of the training process, capable of simulating all types of operating situations along a highly complex 800 km line with 84 stations and all kinds of signalling and train blockages.

This project, and its innovative solutions for the railway sector has required the participation of a large multidisciplinary team that includes experts from rail operations and signalling, process and system design analysts, as well as training psychology specialists.

This tool is now being used by ADIF traffic controllers on skills recycling courses and is expected to be used by ADIF to approve future traffic controllers.

Right page /

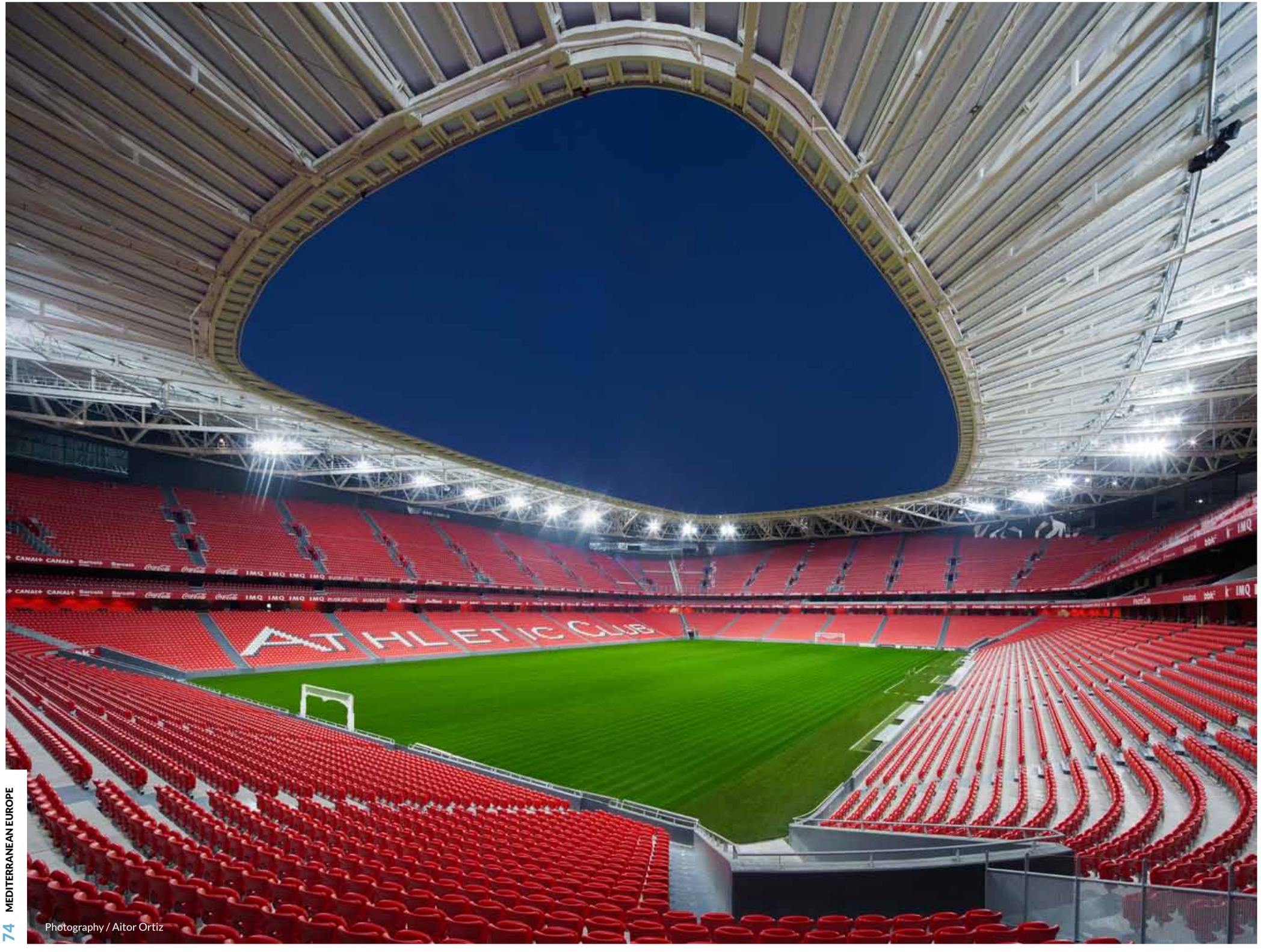
María Dolores Sanz in the control room of Adif in the Chamartín station, Madrid

Author / Alfonso Calza

THE TRAINING OF TRAFFIC CONTROLLERS IS ESSENTIAL TO ENSURE THE SECURITY AND MANAGEMENT OF RAIL

NEW STADIUM SAN MAMÉS

Photography / Jesús Lázaro



Photography / Aitor Ortiz

THE NEW
SAN MAMÉS STADIUM

Over time, the old San Mamés stadium, inaugurated on August 21, 1913, had served its purpose well, however, there were many reasons to warrant its complete renovation. The main reason was the need to increase its capacity. In addition, the progress that has been made in terms of safety standards and regulations, meant that, as is the case with many other Spanish football stadiums, the facilities of the stadium were now lacking.

As the land surrounding the original site was largely owned by the Provincial Council of Bizkaia, and as there was a desire to maintain the urban nature of the stadium, the club opted for the chosen site.

After presenting a proposal that delighted the client, Idom was finally awarded the contract for the preliminary design and project management, as well as works supervision in a contest in which half a dozen important architectural and engineering firms participated.

SAN MAMES HAS BEEN **CHOSEN** TO HOST UEFA EURO 2020 MATCHES

Photography / Jesús Lázaro

Given the requirement to continue all sporting activity without interruption and the fact that part of the new stadium overlapped part of the existing stadium, the project had to be carried in two phases.

This and other difficulties have been successfully resolved over the past seven years: the economic crisis, the succession of three different Athletic Club management teams, and changes to the composition of the members of the development company, among others. Finally, in August 2014, the stadium, with seating capacity for over 53,000 spectators, was completed.

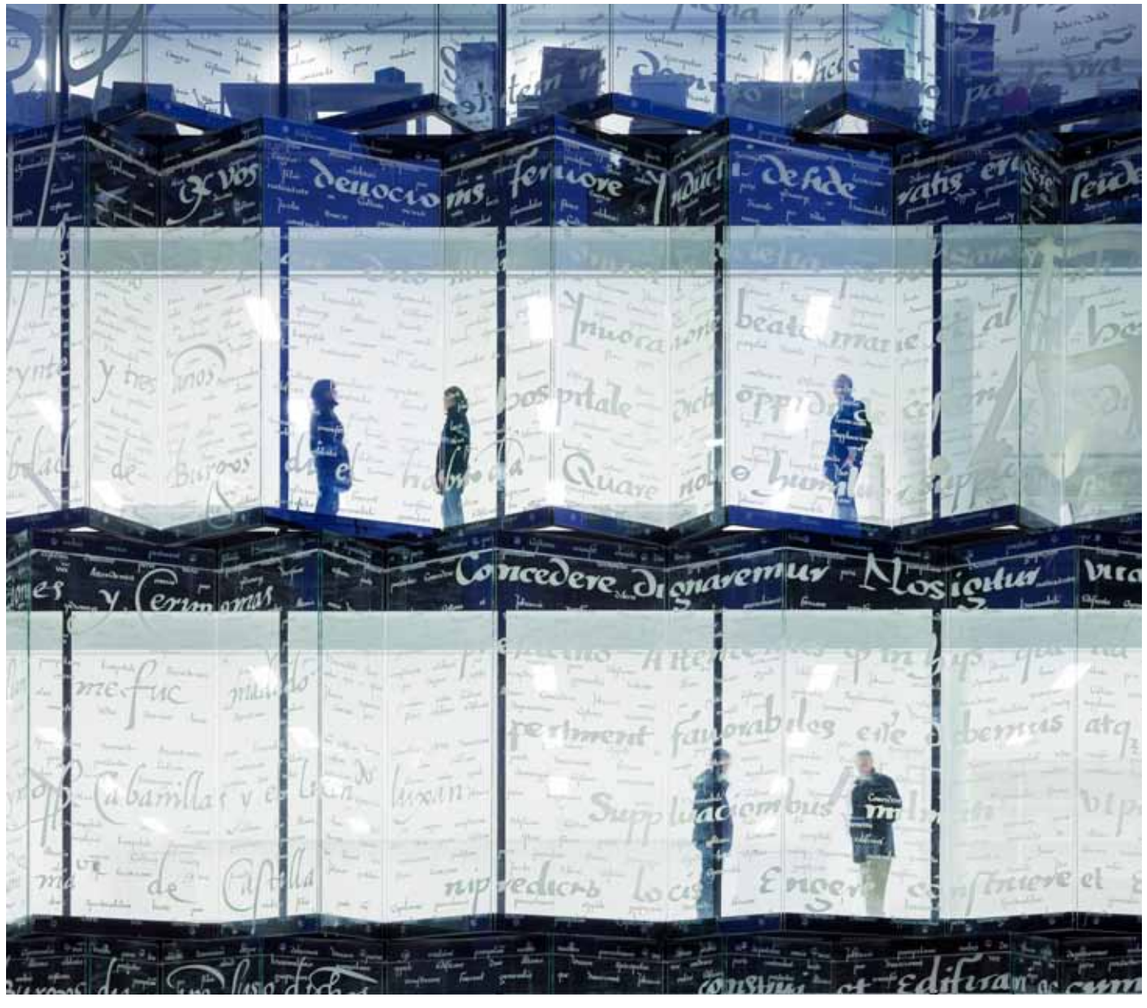
UEFA HAS RATED SAN MAMES IN THE "ELITE" CATEGORY

THE HISTORICAL ARCHIVE
OF THE BASQUE COUNTRY

The Historical Archive of the Basque Country (El Archivo Histórico de Euskadi) is an institution created by the Basque Government, whose primary mission is the collection and management of documentary collections originating from institutions, primarily the Documentary Heritage of the Basque Country (Irargi), as well as private donations. In January 2014, the new headquarters of the Archive, designed by Idom-ACXT were inaugurated.

For Idom, this project dates back to 2003, when the Basque Government contracted our firm to carry out a study on the possibilities of creating an organization to bring together collections dispersed among a wide variety of institutions and individuals.

The consultants of Idom carried out a characterization study of similar archives existing in the Basque Country and visited other archive agencies (Italy, Germany, Canada, Finland ...). The client was then presented with a needs program and a proposal for the organization and spaces. After a few years, the Basque Government decided to build the headquarters that have recently been inaugurated.



Photography / Aitor Ortiz

The building which is located in Bilbao has, along with documentary storage facilities, several exhibition rooms, an auditorium, consultation and reading rooms. The garden area is designed to accommodate different uses such as open-air exhibitions, a reading area and projected images or works.

The glass façade aims to create a sense of transparency, allowing the structure and function of the building to be understood from the exterior. The second glass skin is printed with extracts of texts from some of the documents preserved within the archive, fulfilling the objective of converting the building into an accessible place which is close to the citizen.

MEDITERRANEAN EUROPE

SOME OF OUR RECENT PROJECTS

Croatia

New container terminal and reconstruction of the existing rail freight station at the port of Rijeka. *Preliminary study*

Croatia

Transport network of the country to the Ministry of Transport. Transport. *Development Strategy of the Republic of Croatia*

Croatia

Corridor V (Pan-European corridor) connecting the Adriatic ports. *Designs for improvement and track duplication, Upgrade and electrification*

Spain

Design and Construction of Alternative Emergency Management Centre (CAGE) of the Ascó and Vandellós NPPs. *Detailed engineering and works supervision*

Spain

Assistance in identifying opportunities and developing a plan to enter the field of Smart Cities in Spain, Mexico and Colombia. *Consulting Services*

France, Cadarache

Integrated design of diagnostic systems in ITER ports for Fusion for Energy (F4E). *Comprehensive engineering services of Systems, Design and Analysis*

Macedonia, Skopje

Urban tunnel that will connect the east and west of the city of Skopje. *Traffic study. Construction project*

Romania

Environmental and social due diligence for public sector of supply and sanitation. *European Bank for Reconstruction and Development*

Serbia

Waste management centre for the city of Subotica the European Commission. *Project supervision (in international consortium)*

Turkey, Istanbul

Engineering design verification test (DVT) services for the construction project "CR3 Marmaray Project". *Civil engineering, energy and workshop-depots*

Turkey, Istanbul

Istanbul Metro line: Vezneciler-Edirnekapi-Eyüp-Gop-Sultangazi, with a total length of 17 km. *Preliminary and detailed design*

Turkey, Istanbul

Implementation of SAP business management system for the Onnera Group. *Consultancy Services for design, construction and commissioning of the logistics and finance processes*

The European Union

Monitoring and technical and financial control of the LIFE European Project in Spain and Portugal. *European Commission*

The European Union

Management of buildings for the European Office for Harmonization in the Internal Market (OHIM). Sustainability Report 2014. *Project management, consulting and technical assistance*

The European Union

Technical advice to accredited financial institutions in refinancing portfolio of car parks, owned by Saba Infraestructuras in Spain, Italy and Portugal (Over 170,000 parking spaces). *Consulting Services*

04

SOME PROJECTS

TEST BENCH GERMANY
TELESCOPE CANARY ISLANDS
HEATHROW TERMINAL UNITED KINGDOM
RAILWAY INNOVATION UNITED KINGDOM
TRAMWAY SYSTEM IRELAND
SCHOOL OF ARTS & CRAFTS FRANCE
RAIL CORRIDORS FRANCE
TRANSPORT INFRASTRUCTURE POLAND
LUND TRAMWAY SWEDEN
OTHER PROJECTS

ATLANTIC EUROPE

GERMANY

TEST BENCH FOR WIND TURBINES

The DyNaLab (Dynamic Nacelle Laboratory) will be the first facility in Germany with the capacity to test nacelles in the multi-megawatt range.

The facility will be a centre of reference, assisting the wind industry in developing the next generation wind turbines for both inshore and offshore machines.

The facility will enable the testing of the entire nacelle of the next generation wind generation systems with power ratings of up to 10 MW.

Recreation of infographic by Dynalab
Infographic / Iñigo Gutiérrez Artetxe

GERMANY TEST BENCH FOR WIND TURBINES

In 2012, the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES) contracted Idom for the turnkey supply of a test stand for wind turbines up to 10 MW, including the design and works supervision of the building to house the test stand.

At the end of 2014, the progress of the building that will house the test stand was at an advanced stage of completion. Following the successful completion of the manufacture and transport to Bremerhaven of the main elements of the test sand, Idom begun the installation works. The first tests to check the correct functioning of the test stand are expected to be carried out in the first half of 2015.

Due to the high standards required by the customer and the technology used during development, this test stand is destined to become an international benchmark for large technological facilities both in the area of wind energy generation as well as other sectors of the industry.

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Photography / Amaia Santamaría / Old Port Films

THE FIRST FACILITY IN GERMANY CAPABLE OF WIND GENERATION SYSTEMS UP TO 10 MW

LOOKING AT THE ORIGIN OF THE UNIVERSE

CANARY ISLANDS

THE CANARY ISLANDS

THE QUIJOTE EXPERIMENT

Idom has successfully completed the turnkey supply of the second telescope for the QUIJOTE (Q-U-I JOint Tenerife) experiment, which consists of two telescopes and three instruments to measure the polarization of the Cosmic Microwave Background (CMB), installed at the Observatory de Teide.

The second telescope has improved optomechanical capacities, compared to the first telescope, also supplied by Idom. Another step forward in the research being carried out to detect gravitational waves caused by the Big Bang, this telescope will become operational in early 2015, proving the theory of inflation of the universe.

The delivery of this second telescope will complete the contribution of Idom to this project, which also included the supply of the first telescope, integration and testing of the 5 polarimeters of the first instrument, and the design and supervision of the building that protects the telescope.

In operation since 2011, the first telescope also aimed at the characterization of galactic emission has already provided the first results, which will be complemented with those obtained by the second telescope.

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Photography left page / Doug Wheller
Photography right page / Alfonso Calza

STEPHEN HAWKING SHOWED HIS SUPPORT FOR THE QUIJOTE PROJECT DURING THE INTERNATIONAL CONGRESS "PHILOSOPHY OF COSMOLOGY" HELD IN TENERIFE IN 2014

THE LAUNCH OF THE NEW TELESCOPE WILL BE AN IMPORTANT STEP FORWARD IN THE RESEARCH ON THE GRAVITATIONAL WAVES RESULTING FROM THE BIG BANG

UNITED KINGDOM

“Capabilities and expertise for global projects”

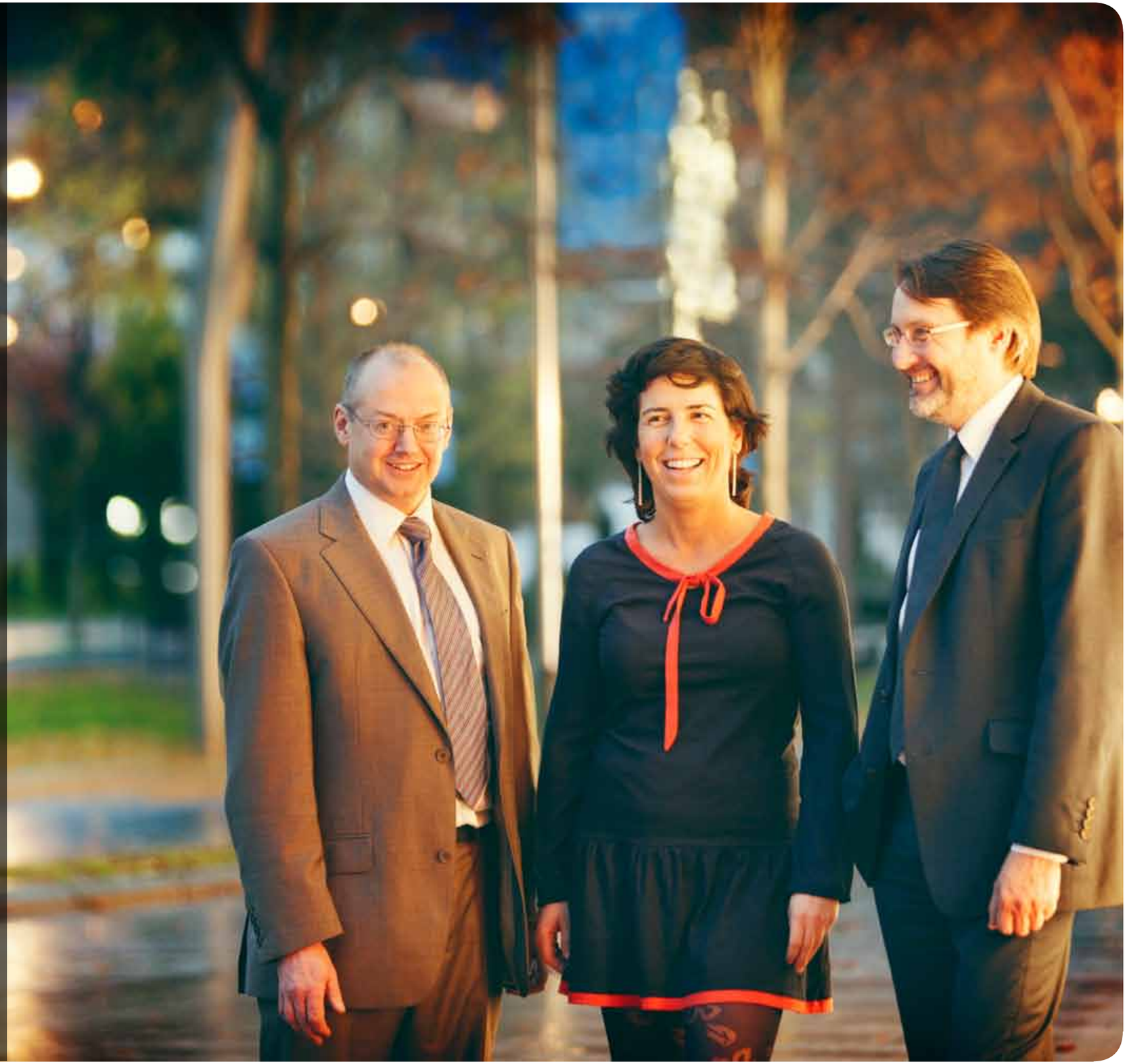
The UK market is an ongoing challenge at the highest level, in which Idom is committed to standing out as the best.

Offering UK wide coverage from 6 regional offices (London, Belper, Manchester, Cardiff, Keston and Moray), we can draw on our global resources to provide a winning combination of knowledge and capability for large-scale complex projects.

We are committed to providing a holistic, professional, innovative and flexible approach to finding pragmatic and effective solutions, seeking excellence in all we do.

PICTURED

Simon Edwards, Elena Varillas & Nigel Huish

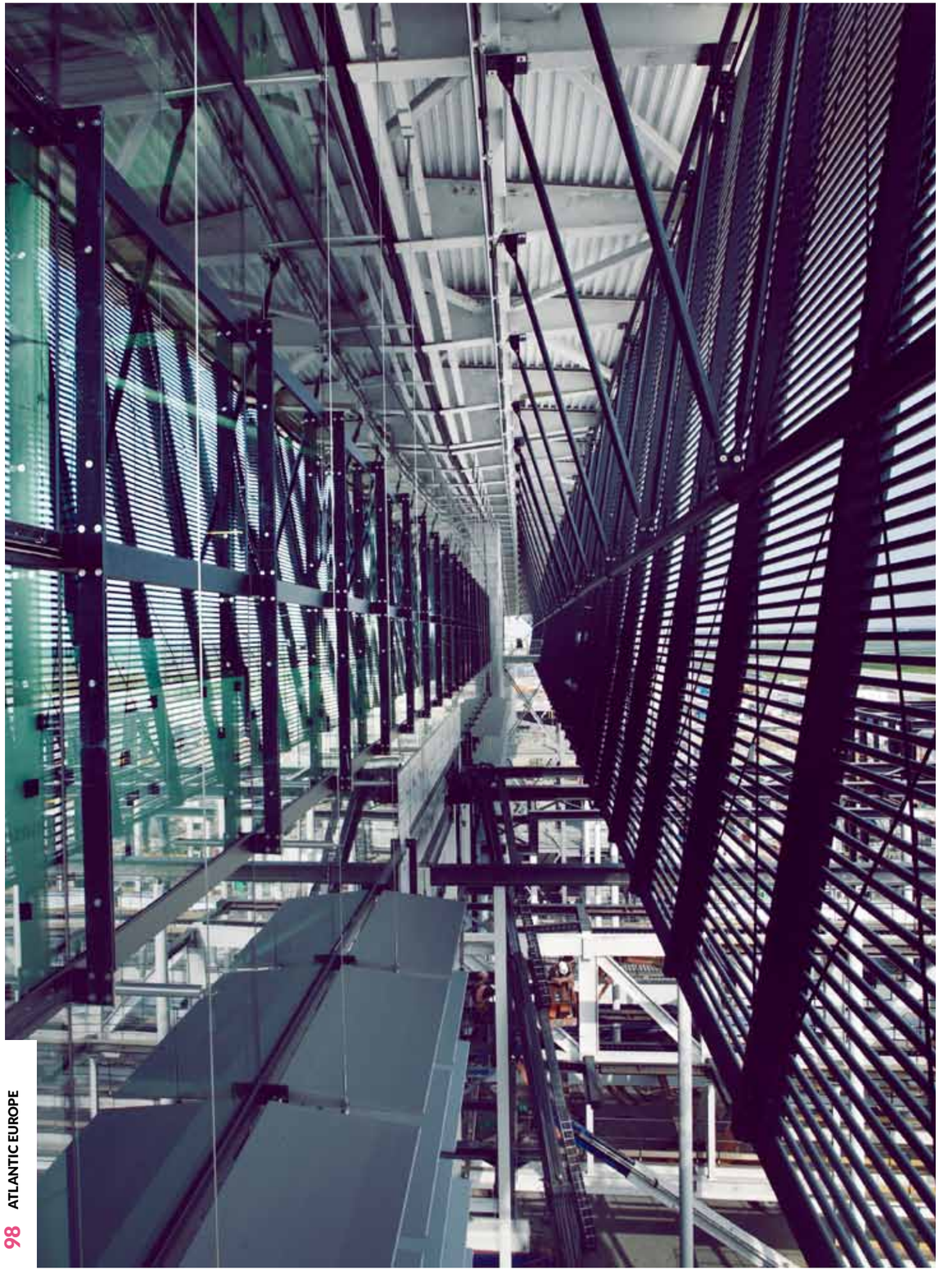


LONDON

HEATHROW TERMINAL 2 INTEGRATED BAGGAGE BUILDING

HEATHROW AIRPORT

As part of Heathrow Airport's ongoing investment programme to improve passenger services, Idom were involved in the design process of the new T3IB (Terminal 3 Integrated Baggage Building) which was opened late in 2013. T3IB is a state-of-the-art baggage facility which will process all T3's direct and transfer baggage under one roof. The project will handle up to 7,200 bags per hour and will provide seamless integration of transfer baggage between each terminal, including a direct connection to the new Terminal 5 Baggage tunnel link + Western Interface Building (WIB). The design team has employed 3D modelling software to ensure spatial co-ordination between the building's structure and M&E installations and the complex baggage system provided by Vanderlande Industries.



THE NEW TERMINAL 2 HEATHROW

The new Heathrow Terminal 2 designed for Vidal & Partners (Concourse A) will be the new location of Star Alliance airlines operating from Heathrow Airport.

The scheme consisted of the construction of the main terminal building along with associated airside structures including passenger transfer structures (FLaNs), a baggage transfer bridge and courtyard vertical circulation structures.

The main terminal consists of a concrete basement below apron level with steel superstructure above providing passenger facilities, baggage handling and retail.

Idom has undertaken the detailed design of the above structures and continued to provide construction support to the completion date.

Photos / Alfonso Calza

THE PROJECT HAS BEEN SHORT-LISTED FOR THE BRITISH CONSTRUCTION INDUSTRY AWARD (BCIA) WITHIN THE MAJOR BUILDING PROJECT OF THE YEAR (OVER £50 MILLION) CATEGORY AND IDOM IS NAMED AS THE ENGINEER

UNITED KINGDOM

“Multidisciplinary teams for international challenges”

Whenever we start a new project, we select a bespoke team of engineers, architects and experts, from our UK and international offices, ensuring their suitability to achieve the objectives of the project.

SOME OF OUR MOST RECENT PROJECTS

HEATHROW T2

CROSSRAIL

DERBY ARENA

BATTERSEA POWER STATION

THE ELEPHANT AND CASTLE DEVELOPMENT

THE HUMBER BRIDGE

ALTYRE ESTATE

GRANGEGORMAN UNIVERSITY

LUAS TRAMWAY

LUTON AIRPORT RAILWAY CONNECTION

Pictured

David Spacey, Bisola Akoni & John McDermot in Manchester

UNITED KINGDOM
INNOVATION IN THE RAIL SECTOR

Idom has developed several innovative projects in the UK, a country with a long tradition in railway. Idom's combination of design and rail knowledge has resulted in innovative proposals that have been selected in several competitions.

"NEEDLE SYSTEM"

Idom were finalist and highly commended in the RIBA (Royal Institute of British Architects) international design ideas competition for Aesthetic Overhead Line Structures related with the future High Speed 2 Rail in the UK.

Idom's proposal called the "Needle System" is designed to minimise visual intrusion in environmentally sensitive areas and to complement contemporary cutting-edge design of new HS2 stations.

RIGID CATENARY

A solution has been developed that allows the catenary electrification of British railways to be renewed, and which is compatible with the existing infrastructure.

Idom has won the tender to develop an innovative catenary solution using insulating components and rigid catenary, which allows clearance for the Overhead Contact Line and avoids having to rebuild bridges included in the new national electrification plan UK being carried out by Network Rail.

"LUTON PEOPLE MOVER"

The Luton People Mover is a means of public transportation using a fully automated driverless vehicles moving along a network of guideways. The concept is known as Automated Guideway Transit (AGT).

In the case of Luton Airport, along with the main supplier, Idom has carried out the feasibility study of the connection system using a "cable car" between the airport terminal, the railway station, and the parking areas, thereby, improving connectivity and, providing solutions for the expected future transport demand of the airport.

IDOM IN THE UNITED KINGDOM

TEAMS

“Designing a better world”

Idom has not just made a firm commitment to the British market, but also to other markets with which it has important historical links, such as India. Following on from flagship projects like Heathrow, the company is working shoulder to shoulder with partners who are leaders in their respective local markets, bidding on large-scale projects.

Professionals from over 15 different countries have joined Idom in the UK, working in close collaboration with the rest of the group.

Pictured

Humberto Escalona, Javier Quintana & Amy Chardon

IRELAND
LUAS TRAMWAY

Idom has prepared design proposals for the new LUAS crosscity, an extension to the Greenline tram in Dublin. The design is a double track alignment, 5.6 km long with a width of 1,435 mm. running from the from the existing stop at St Stephen's Green in the centre of the city to Broadstone, opposite the bus depot. From Broadstone until the end of the line, the track will run along the old railway cutting.

This new line will have 14 stops, depot building, and offices which will be completely integrated into the different urban environments.

The design proposal includes the geometric definition of the alignment in urban areas and cuttings, keeping the disruption of the Redline, already in operation to a minimum during construction. Another challenge resolved in the proposal has been the design and remodelling under the existing bridges and walls of the old rail embankment dating back some 200 years.

The stops are integrated into the urban environments by adapting the configuration of all the furniture elements and the materials used to the characteristic of the location. Power supply for the 750 Vcc line will come from the existing substations and two new substations located near Broadstone and in the Broombridge depot.

Idom have also provided a concept design for the new Depot building which will provide an additional repair and maintenance facility for the tram system. This functional building is architecturally integrated into the environment and is inspired by the industrial landscape of the surrounding areas and the form of the tram car. The building has two maintenance tracks, office, and car parking.

A 5 KM LINE CROSSING THE CENTRE OF DUBLIN

Photos / GLT Infografías

FRANCE LILLE

New building for the Chamber of Arts and Crafts

The Chambers of Arts and Crafts (Chambre des Métiers et de l'Artisanat) are valued institutions in France, as they deal with the preservation of traditional trades, the training of many young people while providing support to small businesses.

The Chamber of Arts and Crafts of Lille needs to extend their campus with new buildings. After a long selection process, Idom was awarded with the design project and construction supervision of one of them.

Located in what will become the southern gate of the city, the new building configures a square next to the main volume of the operation. With an area of approximately 4,400 m2, the building will have many different uses. On the ground floor, there will be two restaurants with their corresponding kitchen and a hair salon. The first floor will accommodate the classrooms and other training uses. Rooms for residency and work experience for the students will be on the second floor; while on the top floor, there will be office space and an area to house the installations of the building.

The work is being developed with a group of French architectural and engineering firms from the area. Idom is leading the project and carrying out the architectural design of the project. The building will be designed under the passivehaus standard construction that combines a high level of indoor comfort both in summer and in winter, with low energy consumption, paying maximum attention to the envelope in terms of insulation, carpentry and high performance glass and a controlled ventilation system.

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Infographics / Alfonso Álvarez & Roberto Fernández de Gamboa

FRANCE / SPAIN / PORTUGAL
RAIL FREIGHT CORRIDOR 4

In order to make the transport of goods by rail more competitive, the EU regulation 913/2010 established a series of priority corridors for the transportation of goods and which constitute the backbone in the rail segment of the European Road Transport Network (TEN-T).

One of these rail corridors is the European Freight Corridor No. 4, also called the Atlantic Corridor, which connects the Iberian Peninsula with Northern France and Germany across the Atlantic seaboard.

The European Economic Interest Grouping of CFM4 awarded the consortium of three companies, led by Idom, the development of a study on infrastructure and operations the European Corridor for Freight No. 4 in the short, medium and long term. The operations of the corridor were analysed for 2014, 2020, and 2030.

The scope of the study also includes the development of a Corridor Information Document which includes all useful information for future rail operators, from the perspective of an integrated European and one-stop-window.

In collaboration with the French partners, Idom has also developed two studies of the critical element of the corridor between Spain and France, concentrated in the Vitoria-Dax stretch. The first of these studies was the design of the master plan scheme of the passenger services and freight trains under different operations scenarios. The second study identified the evolution of the capacity of the stretch and the investment required to resolve the problem of congestion on the corridor.

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Photography / TTStudio

A STRATEGIC AXIS, CONNECTION BETWEEN THE IBERIAN PENINSULA AND THE HEART OF EUROPE

TRANSORT INFRASTRUCTURE

POLAND

“Poland is improving its transport infrastructure with the support of the 2013-2020 European Union funding programme”

Idom is actively involved in this program, carrying out numerous projects for the public administration.

Modernization and upgrading of railways

L 18, Section: Kutno - Toruń
Feasibility study

L 8, Section: Skarżysko Kamienna - Kozłów
Feasibility study

L 8, Section: Okęcie - Radom
Construction management and works supervision

L 146, Section: Wyczerpy - Chorzew
Feasibility study

L 38, Section: Ełk - Korsze
Feasibility study

High-speed railway lines

Poznań to Berlin & Wrocław to Praga
Feasibility study

Highways

Highway S8, tramo: Opacz - Paszków
Construction management and works supervision

Pictured

Marcin Warda

Photography / Paweł Kowalik

SWEDEN
LUND TRAMWAY

Since 1999, the Swedish city of Lund (115,000 inhabitants) has had a strategic plan to phase out the use of private vehicles in favour of sustainable public transport.

The first fruit of that plan was the creation in 2003 of a bus system (called Lundaläken) that, each day, carries about 7,000 people to the main centres of work and training.

Currently, the City has decided to build a tram line that connects the historic centre of medieval origin, with the Northeast of the city, where the main educational and research centres, and parks for public use are located.

As a first stage of the tram project, Idom has conducted the studies of the infrastructure of the 5 km-line including urban insertions, energy supply, OCL, and signalling and communications systems.

Along most of the route, the tram runs along a reserved area - independent from car traffic, bicycles and pedestrians – green areas surrounded by trees, with modern road safety systems and lighting that helps give structure to the city.

Photo/ Recreation image based on the Vitoria tram system also designed by Idom

Photography / Alberto Loyo

THE TRAMWAY INFRASTRUCTURE IS DESIGNED TO WITHSTAND THE LOW TEMPERATURES AND WEATHER CONDITIONS OF SWEDEN

ATLANTIC EUROPE

SOME RECENT PROJECTS

Germany, Bremerhaven

Installation and test stand for wind turbines of up to 10 MW, for Fraunhofer IWES. *Turnkey delivery of the facility. Architecture, Engineering and Planning*

Germany, Bremen

440 MW combined cycle power plant in Mittelsbüren for Cobra. *Basic and detailed engineering services*

Spain, Bilbao

New San Mamés Stadium for San Mamés Barria S.L. *Architecture and Engineering, project management, urban planning*

Slovakia, Mochovce

Seismic Evaluation of Structures, Systems and mechanical and electrical components Mochovce Nuclear Power Plant (ENEL). *Technical Assistance*

France, Lille

Mixed-use building for the Chamber of Arts and Crafts Campus in Lille. *Scheme Design and construction design & works supervision*

France, Bouchain

First 592 MW combined cycle plant with flex efficiency technology (9HA.01 gas turbine, W28 generator and D14 steam turbine) for GE. *Basic and detailed engineering services*

Ireland

Extension of the tram Green Line in Dublin. *Design Competition: Architectural Design, stops, infrastructure, tracks, power, catenary, signs and workshops and depots*

The Canary Islands

Telescope to measure the polarization of the Cosmic Microwave Background (CMB) for the Canary Islands Astrophysics Institute (IAC). *Design, assembly, integration and verification*

United Kingdom, Abingdon

Magnetic plasma confinement experiment of the Joint European Torus (JET) for Culham Centre for Fusion Energy (CCFE). *Risk analysis study of equipment failure*

United Kingdom

Development of a mast prototype for high-speed electrification plan for RIBA. *Design competition*

Sweden

Preliminary Design of the 5.5 km tram infrastructure for Lunds Kommun. *Infrastructure design and urban integration, track, energy, catenary, signalling and information and communication systems*

Poland, Ireland and the UK

Incinerators for Hitachi Zosen Inova. *Engineering Services for structural, electrical, I&C and various piping systems (water-steam cycle, auxiliary piping, cooling circuit with seawater)*

France

European Freight Corridor No. 4 for EEIG (European Economic Interest Grouping). *Infrastructure and operations study*

Poland

Warsaw railway junction for PKP PLK S.A. *Development of the strategic plan for the modernization of the railway junction in Warsaw (2016-2022)*

European Union

Technical assistance for the Life programme for the European Commission. *Monitoring and technical and financial control of Environment and Nature projects approved for Spain and Portugal*

05

SOME PROJECTS

SOLAR TELESCOPE HAWAI´I, USA
THERMOSOLAR PLANT NEVADA, USA
REFINING AND PETROCHEMICAL
AIRPORTS MEXICO
URBAN MOBILITY AGUASCALIENTES, MEXICO
INNOVATION AGENDAS MEXICO
HIGHWAY IN CANADA
BIOMASS CANADA
OTHER PROJECTS

NORTH AMERICA

UNITED STATES

IDOM AEC

“We identify practical solutions for complex problems”

AEC is the brand name of Idom in North America. We deliver professional services to clients in the United States and Canada. We are proud of the long term client relationships, which we have developed and maintained over the last 35 years, since our beginnings in 1980. Our focus on long-term satisfaction and value creation extends both externally to our customers, and internally to our professionals. We understand that this trust is something that must be continuously earned, project by project, and year by year.

The extent of our professional services ranges from one person for one day, to multidisciplinary teams concentrating on long-term projects. We believe this flexibility and responsiveness, coupled with our passion for technical excellence, is a defining characteristic for our firm.

We have extensive experience and expertise in the following area:

RENEWABLE ENERGY

OIL & GAS

MANUFACTURING

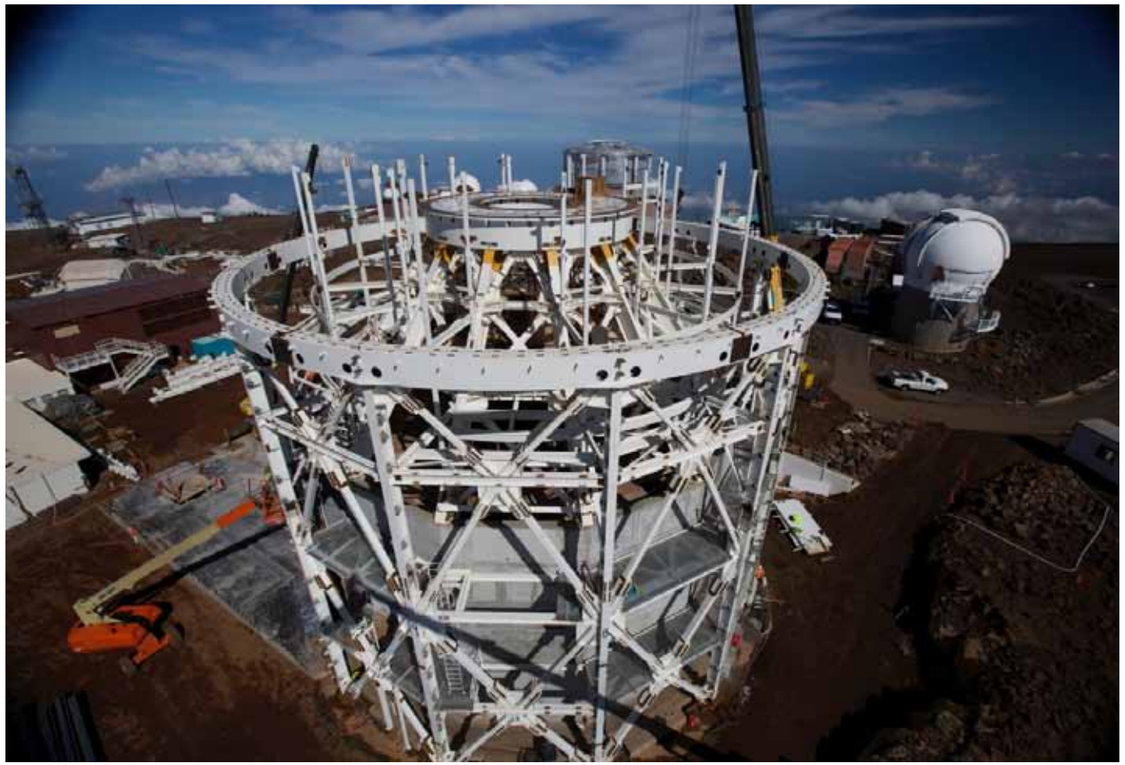
AGRICULTURE

TESTING FACILITIES & ASTRONOMY

Pictured

Tom Lorentz


WORLD'S LARGEST SOLAR TELESCOPE
HAWAII



USA SOLAR TELESCOPE OF HAWAI´I

The Daniel K. Inouye Solar Telescope (DKIST), formally the Advanced Technology Solar Telescope (ATST) is a 4-m class domed solar telescope which is currently under construction at the Haleakala Observatory on the island of Maui, Hawai'i.

Idom completed the detailed design of the telescope dome in 2012. By 2014, Idom had successfully completed the phases of fabrication, factory assembly and testing of the Telescope Dome, during which the dome operation was proved to have outstanding pointing performance.

The DKIST Enclosure, a large structured-mechanical system approximately 22m [72ft] tall and 26.6m [87ft] in diameter, is unique in that it positions the optical system's entrance aperture stop and tracks the sun's motion with millimetre-level accuracy.

In addition, the azimuth systems and altitude of the dome are driven by specially designed mechanisms to achieve a uniform motion and constant speeds for tracking the sun's movement. This has been achieved by using innovative systems such as the "crawler" mechanism.

Once the testing phase was completed, Idom proceeded with the disassembly, packaging and transport of the 550 tonne dome. The DKIST dome was sent by container to its final destination in Hawaii, where assembly is scheduled to commence in December of 2014.

Photo left page /
Courtesy of Brett Simison, NSO/AURA/NSF

Photo right page /
Amaia Santamaría

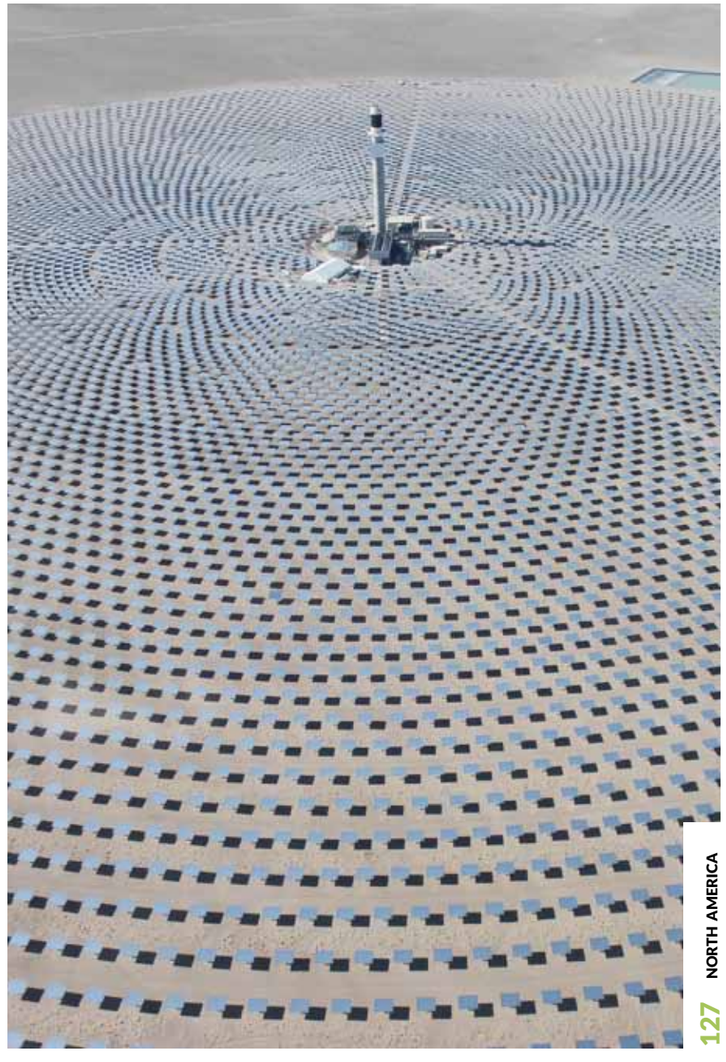
USA THERMOSOLAR PLANT IN THE NEVADA DESERT

In the State of Nevada, in the vicinity of the town of Tonopah, construction of the Crescent Dunes Thermal Solar power plant has been satisfactorily completed. This is the largest plant in the world using central tower technology with a heliostat field directly heating the molten salt in the central receiver. This technology allows fluid to be stored at a higher temperature, making this type of plant more efficient than other plants with storage capacity.

The plant which is a milestone in industrial construction will generate 110 MWe, capable of supplying power to about 75,000 homes. The Spanish company Cobra (ACS Group) is responsible for the construction and assembly of the plant. Idom has already completed the detailed engineering and has been providing on-site support during construction and assembly since summer of 2012. The owner of the plant is Solar Reserve and the project has received financial support from DOE (Department of Energy) of the US Federal Government.

ONE OF THE LARGEST PLANTS IN THE WORLD USING CENTRAL TOWER AND HELIOSTAT FIELD TECHNOLOGY

Photos courtesy of Cobra



REFINING AND PETROCHEMICAL

SERVICES

Conceptual Engineering and Studies
Basic Engineering
Front End Engineering Design (FEED)
Project Management (PMCs)
Detailed engineering for facility upgrades (revamps)
Detailed Engineering

TYPES OF PLANTS / UNITS

Storage Terminals
Cogeneration and Energy Units
Refinery Units
Utilities & Off site
Open Art Units (distillation, mines, sulphur, hydrogen, gases, etc.)
Electrical installations in refineries
Revamps of units (energy efficiency improvements, Processing Units)

Idom has clients in the US, Mexico, Colombia, Peru, the Netherlands, Switzerland, Russia and Spain. In 2014, several framework agreements have been signed with the Repsol Group to deliver engineering services to its refineries in Tarragona, Cartagena and Petronor-Bilbao

BRAZIL

BASIC ENGINEERING FOR NEW BIOETANOL PRODUCTION TECHNOLOGIES

Idom is collaborating with Abengoa Bioenergy – New Technologies in a biomass to bioethanol plant, to be built in Brazil

PERU

REFINERY TALARA

Engineering Project Management and Supervision (PMC) for the modernization of the Talara refinery for Petroperú, in consortium with Inelectra and Nippon Koei

SPAIN

REPSOL REFINERY IN TARRAGONA, CARTAGENA & PETRONOR

Engineering services for improvement projects for refinery units

OIL TERMINAL OF VOPAK IN ALGECIRAS

Technical assistance and engineering services for the expansion projects of what will be one of the largest oil storage terminals in the Mediterranean

UNITED STATES

IMPROVEMENT PROJECTS AND MAINTENANCE ENGINEERING IN AMERICAN REFINERIES

AEC - Idom has been collaborating for years with several American refineries through framework agreements for engineering services for improvements and maintenance projects in their facilities. Most notable are works developed for the refineries of Saint Paul and Flint Hill

ENGINEERING AND DESIGN SERVICES FOR STORAGE TANKS

AEC - Idom has provided detailed engineering for the hydrocarbon storage park associated with the Baja California III thermal power plant

ENGINEERING AND DESIGN SERVICES FOR SPECIAL PRESSURE EQUIPMENT

AEC – Idom has been developing engineering for critical pressure equipment in the hydrocarbon sector and, in 2014, has delivered engineering services to various clients in the USA and other countries such as Saudi Arabia

INTEGRATING THE AIRPORTS
OF TIJUANA AND SAN DIEGO

Although in different countries, Tijuana (Mexico) and San Diego (USA) are neighbouring cities. Both have busy international airports, however, while San Diego airport is operating to the point of saturation and has no room for growth, Tijuana is only operating at 60% of its capacity.

The most efficient solution was to connect both airports by a pedestrian walkway, so the Tijuana airport could function as an extension of San Diego. However, for many years, immigration and border policies meant that this solution was not possible.

Photography / Pradip J. Phanse

TIJUANA & SAN DIEGO AIRPORTS

Finally in 2010, the US and Mexico reached an agreement to build, maintain and operate a new border crossing, a bridge connecting the airport of Tijuana and San Diego. Dubbed the Gateway to the Californias, this cross-border bridge will be for the exclusive use of the passengers.

Contracted by the Pacific Airport Group (GAP), Idom has been responsible for designing the integration of the bridge into the international area of the airport of Tijuana.

The architectural design is deployed as a linear element, divided into two pieces, unified by the façade. One of the pieces is integrated into the existing terminal, modifying the entire arrivals area, while the other connects with the US terminal building by a bridge which crosses the border and state highway.

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Photos /
The new terminal building

THE NEW BUILDING WILL PERMIT THE FLOW OF PASSENGERS OF BOTH AIRPORTS TO BE MANAGED MORE EFFECTIVELY

MEXICO MORELIA AIRPORT

EXTENSION AND UPGRADE OF THE RUNWAY, TAXIWAY AND APRON

Morelia International Airport, located in the State of Michoacan (Mexico), is operated by the Pacific Airport Group (GAP). In 2013, the 12 Mexican airports operated by GAP handled 23.2 million passengers or 20% of the total air traffic of the country.

The work carried out by Idom included the design of the project and subsequent supervision works for the extension and upgrade of the runway, taxiway and apron of the airport. At the same time, Idom prepared the design projects necessary for the ICAO Aerodrome Certification process. Idom also assisted the client in the tender, testing and commissioning phases of the airport infrastructure.

The multidisciplinary team from Idom included professionals from the offices of Madrid and Mexico D.F.

AIRPORTS

Photo / Lanzarote Airport, in which Idom has also worked

Photography / Alfonso Calza

AGUASCALIENTES
BUS RAPID TRANSIT (BRT)

The Metropolitan Area of Aguascalientes, composed of the municipalities of Aguascalientes, San Francisco de los Romo and Jesus Maria, has a population of 1 million inhabitants. It is an important node of economic activity related to the automotive industry, manufacturing and trade, among others. In this socioeconomic context, the mobility of citizens in the metropolitan area and its connection to nearby towns is especially important.

Therefore, the Government of the State of Aguascalientes has proposed the promotion of modes of transport that are compatible with economic growth, social cohesion and environmental protection.

For this reason, it has awarded Idom the contract to develop the Comprehensive Plan for Sustainable Urban Mobility in the Metropolitan Zone of the City of Aguascalientes and the detailed design of a BRT.

The work has culminated in the development of the final design of the first phase of the implementation of the Integrated Metropolitan Transportation system which will make the metropolitan area of Aguascalientes a benchmark for sustainable mobility at national level.

SUSTAINABLE URBAN MOBILITY
FOR A POPULATION OF ABOUT ONE MILLION PEOPLE

MEXICO

INNOVATION AGENDAS

Thanks to its demographics and social dynamism, Mexico is postulated as one of the leaders of the global economy in the coming years. But to reach this goal, its industry has to take the path of technological development and innovation.

Idom has collaborated with ten Mexican States to identify strategic sectors in each, as well as competitive advantages, scientific and technological capabilities. Based on this work, innovation priorities will be established and industrial projects identified that can generate higher added-value in each State.

The Federal District has been the subject of special attention. With a population of 25 million inhabitants, it suffers from chronic problems, common to all large cities, related to water supply, transport, health services and waste management.

Some Mexican scientific institutions have been working on these problems for years without achieving results that can be applied practically. Idom has launched a new methodology in the field of water supply and waste management, to hasten the arrival of the results "the laboratory to the market".

Idom has also collaborated on the Regional agenda of South Southeast Mexico, one of the territorial cores with the greatest potential for economic take-off of the country in the coming years.

STATES THAT HAVE PARTICIPATED

Guanajuato
Guerrero
Oaxaca
Chiapas
Quintana Roo
Yucatán
Campeche
Tabasco
Veracruz
Distrito Federal

Pictured

Mikel Pinies, Ricardo Morales, Guillermo Arau, Karina Chagolla, Alvaro Guiterrez, Alina Juganaru, Chus Barrada, Silvia Clares, Marta Alvarez & Melisa Munguia

CANADA

GATEWAY BETWEEN CANADA & THE US

IMPROVING THE CONNECTION BETWEEN CANADA AND USA

The city of Windsor (Ontario), in southern Canada, is a major commercial gateway between Canada and the United States, as it is located opposite the industrial city of Detroit (USA), on one of the banks of the river the same name. To improve the connection between Canada and the United States, the provincial government of Ontario launched the Rt. Hon. Herb Gray Parkway project (The Parkway).

This project, 11 km in length includes a below-grade six-lane highway and a four-lane grade level highway, 11 tunnels, 15 bridges, 7 km of detour roads, and 20 km of green paths for pedestrians and cyclists along the cities of Windsor, LaSalle and Tecumseh.

In December 2010, the design, construction, finance and maintenance of the Parkway was awarded to the consortium ACS Infrastructure Canada Inc., Acciona Concessions Canada, and Fluor Canada Limited, with an estimated investment of 1,400 million Canadian dollars.

Since December 2011, Idom has been providing technical assistance to the consortium for geotechnical and value engineering in relation to the structures, tunnel installations, as well as the design of temporary detours. One of the main challenges is to ensure that the works have a little impact as possible on normal traffic.

Photo /
Courtesy of the Parkway Infrastructure Constructor

CANADA
BIOMASS POWER PLANTS

40 MW biomasa power plants in Fort St James & Merritt

On the west coast of Canada, in the province of British Columbia, two of the largest biomass power plants in the country are being built.

The plants, which are located in areas with a large community of First Nations people, will each generate 40 MW of power and operate in extreme weather conditions (dropping to -46.5° C). The main fuel used will wood residues from local sawmills, logging operations, and roadside debris.

The two plants will be equipped with steam turbine/generators using "grate firing" combustion technology, one of the most reliable and sophisticated on the market.

Once operational, the plants will have the capacity to supply some 40,000 homes and avoid emissions to the atmosphere of some 570,000 tonnes per year of CO_2.

The construction project for the two plants, under an EPC contracting arrangement, was awarded to Iberdrola Ingeniería who in turn has contracted Idom to develop the detailed engineering for both plants.

Infographic / Íñigo Gutiérrez Artetxe

CAPACITY TO SUPPLY 40,000 HOMES,
AVOIDING THE EMISSION OF AROUND 570,000 TONS OF CO_2 ANNUALLY

NORTH AMERICA

SOME OF OUR PROJECTS

Canada, Fort St. James

New substation and transmission line for a 36.3 MW Biomass Plant for Iberdrola. *Detailed engineering of civil works, electromechanical assembly, instrumentation and control*

Canada, Highway

11 kilometre Highway for Infrastructure Ontario and the Ontario Ministry of Transportation. *Geotechnical and value engineering technical assistance for structures and facilities design provisional tunnels and detours*

Canada, British Columbia

40 MW Biomass plants in Fort Saint James and Merrit for Iberinco. *Detailed Engineering Services*

USA, Tonopah

110 MW central tower with molten salt of for Cobra. *Detailed Engineering Services*

USA, Hawai'i

Daniel K. Inouye Solar Telescope (DKIST) for AURA (Association of Universities for Research in Astronomy). *Design, manufacture, assembly testing, packaging and transport (EPC)*

USA, South Carolina

Test bench for wind turbines up to 15 MW for Clemson University. LEED certificate Golden Award-nominated "Project of the Year" in the magazine ENR Southwest. *Engineering and Advanced Analytics Services*

Mexico, Veracruz

Life Management Program of Laguna Verde Nuclear Power Plant. *Consulting Services and Missions for the International Atomic Energy Agency (IAEA)*

Mexico, Monterrey

New Steelworks and ingot casting of special steel for Bascotecnia. *Detailed engineering of civil works, urban design, equipment foundations and buildings and pipping*

Mexico, La Puebla

25 MW Geothermal power plant (Los Humeros III) for ALSTOM. *Basic and detailed design services for electrical, I & C and mechanical equipment*

Mexico, Baja California

46.8 MW Central thermoelectric power plant (internal combustion engine) of Baja California Sur V for Acciona. *Full Engineering Services*

Mexico, Durango

New production facility for MDF board for MASISA. *Detailed engineering; reception and wood pulping, thermal plant for drying of the fiber; process buildings and warehouses*

Mexico

Wind power generation in the south of the Isthmus of Tehuantepec, for the Secretary of Energy. *Strategic Environmental and Social Assessment*

Mexico, La Paz

Integral Sustainable Urban Mobility Plan for the Inter-American Development Bank. *Analysis and diagnosis of mobility and integration of the ICES strategy document*

Mexico, Yucatan

Asphalt storage terminal including several facilities for Trafigura - Puma Energy. *Design and Detailed Engineering*

Mexico, Nuevo Leon

Development of programs to support technological services in the industrial sector, for the Inter-American Development Bank. *Consulting Services*

06

SOME PROJECTS

RESILIENT CITIES
BOGOTA METRO COLOMBIA
URABÁ COLOMBIA
BARRANQUILLA COLOMBIA
DESIGN OF LOGISTICS NETWORKS COLOMBIA
REGIO TRAMWAY SYSTEM COLOMBIA
HYDROELECTRIC USE NICARAGUA
EI ORO ECOPARK EQUADOR
OTHER PROJECTS

SOUTH & CENTRAL AMERICA

LATIN AMERICA AND THE CARIBBEAN

CITIES RESILIENT AGAINST CLIMATE CHANGE

Through the "Emerging Sustainable Cities Initiative" (ICES), The Inter-American Development Bank (IDB) is promoting the development of intermediate cities in Latin America and the Caribbean (LAC) experiencing rapid population and urban growth in a physical environment which is vulnerable to the risks of climate change.

Under this initiative, Idom is designing models of sustainable and resilient cities, able to adapt and overcome natural hazards, considering scenarios of urban growth (2030 and 2050), and designs which are more compact and habitable, favouring eco-mobility, the local economy and the generation of employment.

IDOM IS A LEADING CONSULTANT IN THESE STUDIES

HAVING WORKED IN:

ECUADOR

Cuenca, doubling its population by 2050

ARGENTINA

Parana, vulnerable areas along the Parana River and soils without risk

BRAZIL

João Pessoa, identifying risk areas and socioeconomic impact

CHILE

Valdivia, with positive results in the emission of greenhouse gases

PARAGUAY

Asunción with about 3 million inhabitants, improving resilience to flooding

HONDURAS

Tegucigalpa, prioritizing measures against floods, landslides and droughts

CURRENTLY LEADING NEW PROJECTS IN:

BRAZIL

Coastal cities of Florianópolis, Vitoria and Palmas

DOMINICAN REPUBLIC

Santiago de los Caballeros, the second largest city of the country

BARBADOS

Bridgetown, the capital and its metropolitan area

COLOMBIA

Pasto, the most densely populated and compact city fo the initiative, for Findeter

ARGENTINA

Neuquen y Añelo, oil cities with one of the largest unconventional extraction deposits of the world in Patagonia, for the YPF Foundation

Photography / IPUF/PMF (Instituto de Planejamento Urbano de Florianópolis / Prefeitura Municipal de Florianópolis)

COLOMBIA

“Local capacities and international experience”

Our office in Colombia counts on the collaboration of all the experts of Idom, located in all the offices of the Group. This means that we can assemble multidisciplinary teams to respond to the specific needs of our clients, providing integral solutions that are workable.

We are working to help develop the country, with both public and private clients, strengthening their confidence.

SOME RELEVANT PROJECTS

METRO BOGOTA
TERRITORIAL IMPACT IN URABÁ
EXTENSION OF NACELLES PLANT IN CAMAÇARI
URBAN AND ENVIRONMENTAL REGENERATION IN BARRANQUILLA
LOGISTICS NETWORK DESIGN AND SCENARIOS
MASTER PLAN OF THE SOACHA INDUSTRIAL PARK
DIAGNOSIS OF COMPETITIVENESS
EVENTS CENTER OF VALLEDUPAR

Pictured
Edwin Rojas

BOGOTA METRO
COLOMBIA

At present, the main mode of public transport for the 8 million inhabitants of Bogota, a bus system which uses an exclusive BRT lane, has now reached saturation level. Therefore, the advanced delivery of the designs of the first metro line, following several years of delays and waiting, has been a cause for celebration in the entire city.

This is an underground line of 27 km in length, running between Portal de Las Américas station and the station of Calle 127, with a total of 27 stations, a 4.5 km technical section (the yards and workshops at the beginning of the line), an investment of $7,500 million.

When the line becomes operational in 2021, demand is estimated at 800,000 passengers per day, with a critical load at peak time of 55,000 passengers per hour in each direction. By 2050, the critical load at peak time will be 80,000 passengers, and it is estimated that 1,350,000 passengers will use the metro daily. The commercial speed will be 35 km/h and initially the frequency of the train will be every 2.5 minutes. The rolling stock required for the launch of the line will be a fleet of 47 trains with 6 carriages per train.

The line will be fully automated with driverless trains, a CBTC signalling system and platform doors capable of increasing the operating frequency by up to 90 sec.

The scope of the project, with an implementation period of 18 months, includes the geometric design, tunnel, workshops and depots, stations, urban planning, systems and rolling stock. It is expected to be completed in January 2015.

To ensure the highest level of service to the client, Idom has opened a new office in Bogota, with the full support of the office in Medellin, which will serve to further establish our firm in the country.

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Infographics/ Ekoomedia

800,000 PASSENGERS DAILY
IS THE ESTIMATED DEMAND FOR THE NEW LINE

COLOMBIA GEOSTRATEGY OF URABA

Industrial and Logistics Park associated with the new deepwater port

Within the framework of the "Integrated Regional Project for the development of Urabá", the Governor of Antioquia has presented the strategic axes to position the region of Urabá among the best of the Caribbean, and a first class international industrial port region.

The geostrategic location at the intersection of major sea and land routes between the Caribbean Sea and the Pacific Ocean, maximizes the potential for the creation of a competitive regional urban centre, based on port logistics activities, and the productive sectors of agribusiness, forestry, automotive industry, glass and paper.

Idom has collaborated with the Institute for Development of Antioch in defining the new economic centre, focusing on exploiting the synergies between urban uses, port activities, and the productive sectors.

A space of opportunity with very positive impact on territorial dynamics in the area of influence has been proposed, basing growth on a region which is well connected, qualified, socially responsible and environmentally sustainable.

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Infographics / Manuel Leira

A RENEWED BARRANQUILLA

The Municipal Government of Barranquilla has proposed the regeneration of slum neighbourhoods, seeking solutions to reduce their vulnerability to floods and landslides.

Along with the Inter-American Development Bank and the city of Barranquilla, Idom is developing the Strategic Plan and the Pilot Project for the improvement of these informal settlements, repositioning the focus of urban development to achieve the economic welfare for the inhabitants.

The Plan prioritizes actions of urban densification and environmental regeneration, according to the Healthy City principles of the World Health Organization, in terms of creating a healthy urban environment, liveable and with social cohesion, ensuring quality of life.

The plan deals with the legalization and management of the ownership of the property, the mitigation of the risk areas, defining the areas suitable for the growth with decent housing, amenities, and improving connectivity to public transport and infrastructure networks. The project specifies the urban design and defines the inter-institutional management, financial and legal model.

COLOMBIA DESIGN OF LOGISTICS NETWORKS

In November 2013, the Nutresa Group initiated the process to implement a tool to optimize the supply chain. The tool will allow different scenarios to be generated and the profitability to be evaluated. This tool will facilitate decision-making, strengthening the supply chain, and maximizing the gross operating margin. The process has commenced with the implementation of the tool in the facilities of the producers of biscuits (Noel) and meat products (Zenú), counting of the services of Idom Consulting.

To develop this stage of the work, the members of the team from Idom and both the businesses of Nutresa have carried out the following actions: (i) definition of the strategy model in line with the objectives of each business, (ii) development of an optimization model for the generation of monthly plans for transport, manufacturing, purchasing and inventory, maximizing the profitability of the operation, and (iii) deployment and end-user training for maintenance and future use of the implanted tool.

Pictured

Silvia Balmaseda, Rafael Covarrubias & Nuria Álvarez

COLOMBIA A NEW CONCEPT OF MOBILITY FOR BOGOTA

The RegioTram is a tram-train system that uses a light electric vehicle with dual functionality. In intercity sections the train acts as a commuter train reaching speeds of up to 100 km/h, while in the city, it functions as a tram, achieving perfect urban integration and excellent travel times as the modal interchanges are avoided.

With RegioTram, urban mobility will be improved in the region, through two new double track lines, connecting the centre of Bogota at the old Sabana Train station to the surrounding municipalities.

The Western Corridor line will run along the route of the old Tren de la Sabana. From the Sabana station, the line will run 40 km to the town of Fontibón, the municipalities of Funza, Mosquera, Madrid, Roebuck and finish in Facatativá. This line will also incorporate a connection from the station Fontibón to the International Airport of El Dorado. The other proposal, the South Corridor line also starts from the Station de la Sabana, reaching the municipality of Soacha.

With 18 km in length, the alignment largely follows the former Southern Railway track. Both Corridors will have a fleet of approximately 50 trains running at a frequency of 4 and 5 minutes at peak time, serving 160 million passengers a year.

In urban sections, the stations will be every 500 meters, while on the intercity sections, the distance between stations will be around 5 km. These stations have a high security system with automatic platform doors synchronized with the arrival of trains.

All will be controlled from a central command post, which will also include parking and depots for maintenance.

This means of transport will allow a reduction of 180,000 tons per year in carbon dioxide emissions, helping to improve the energy efficiency of public transport.

Idom has carried out the feasibility study of Regio Tram.

Infographics / Roberto Fernández de Gamboa & Alfonso Álvarez

CLEANER, FASTER, MORE COMFORTABLE AND SAFER

NICARAGUA

HYDROELECTRIC POTENTIAL OF THE RIVERS

Although it is a country with abundant natural resources, Nicaragua is lacking the basic infrastructure to ensure that a considerable part of the population enjoys a certain quality of life. This deficiency is all the more poignant, if we consider that 40% of this population are children.

With the help of international organizations, the Government is working to provide most of the population with access to basic services such as electricity, through the National Sustainable Electrification and Renewable Energy (PNSER) program. This program will increase the coverage from 65% to 85% of the population, benefiting more than 1.7 million people.

Idom is participating in this program, funded by the Inter-American Development Bank and the Nordic Fund. In collaboration with the German company MVV decon, Idom is carrying out a study of the hydroelectric potential of the basins of two of the most important rivers, the Coco River and the Rio Grande de Matagalpa.

ECUADOR
THE EL ORO ECOPARK

The Autonomous Provincial Government of El Oro, in collaboration with the United Nations Development Programme has launched the project to create the first Agro-industrial Park in Ecuador, in order to strengthen the activity of the region and promote the agro-industrial sector.

The development model involves the creation of a sustainable industrial ecosystem, consisting of anchor agribusiness companies with a strong technological and innovation base, and focused on the modernization of the productive matrix in the segments with the greatest potential: bananas, cocoa, shrimp and coffee. The Ecopark is the ideal space to generate, develop and transfer knowledge. Spread over 40 hectares, the park forms part of the 300 hectares destined for future expansion.

In addition, the park will have complementary uses that extend the provision of on-site services: administrative, sales area, research, teaching and training, sports, recreation and residential.

The complex is a low environmental impact development, based on a scenario of self-generation of energy and energy savings, through the application of criteria of functionality and efficiency in the design and construction of the exterior space and buildings.

Moreover, the proximity to the urban areas of Santa Rosa and Machala contributes to job creation, also attracting local skilled labour.

Photos /

The headquarter building of the Ecopark makes use of the natural environment to integrate shaded open spaces and vegetation

Infographics / Idom

WITH LOW ENVIRONMENTAL IMPACT, THE ECOPARK WILL BE ENERGY EFFICIENT AND GENERATE ITS OWN ENERGY

SOUTH & CENTRAL AMERICA

SOME RECENT PROJECTS

Ecuador, Quito

Integrated steel plant using DRI for the manufacture of flat products in Ecuador, managed by the public company Petroecuador EP. *Conceptualization studies*

Ecuador, El Oro

Agroindustrial Park of Ecuador for the United Nations Development and Prefecture Programme of the province of El Oro. *Regional strategic plan, Master Plan*

Caribbean and Latin America

Emerging and Sustainable Cities Initiative for Inter-American Development Bank, YPF Foundation and Financial Development. *Risk mitigation, growth scenarios*

Colombia, Uraba

Industrial and port development in Urabá for the Development Institute of Antioch. *Territorial dynamics, socioeconomic and environmental impacts, financial viability*

Colombia, Barranquilla

Urban and environmental regeneration in Barranquilla, for the InterAmerican Development Bank and the Mayor of Barranquilla. *Strategic Plan, pilot project, Management model*

Colombia, Bogota

Development of the first line of heavy metro line of Bogota for the Instituto de Desarrollo Urbano (IDU). *Advanced Basic Engineering Design*

Colombia, Bogota

Waste energy recovery plant in Bogota, for a power company in Bogota. *Detailed feasibility study and basic engineering (FEED)*

Colombia, The city of Pasto

Study on Climate Change, Natural Hazards and Urban Growth for Findeter. The objective is to make recommendations on urban growth in the municipality. *Consulting Services*

Colombia, Medellin

Modernization of the sewerage system of river basins for Empresas Públicas de Medellín, E.S.P. *Hydraulic Analysis of the sewerage network and elaboration of a diagnosis of the main deficiencies detected*

Honduras

Regional Municipal Information System to manage cadastral and land information for the Honduran Institute of Forestry Conservation (ICF). *Consulting Services*

Jamaica

Environmental Technical Assistance for the gas sector in Jamaica, for the World Bank. *Institutional training in environmental impact assessment*

Dominican Republic

Telecommunications services Business model using the fiber optic network for the Dominican Electricity Transmission Company (ETED). *Consulting Services*

07

SOME PROJECTS

RAILWAYS CHILE
SANTIAGO METRO CHILE
TRANSPORTATION PERU
CONVENTION CENTRE PERU
OTHER PROJECTS

SOUTH AMERICA/PACIFIC

29

MILLION PASSENGERS USE
CHILEAN RAILWAYS ANNUALLY

CHILE

COMMITMENT TO RAILWAY

Recreation composition based on photographs by Afonso Calza and Jesus Bermejo

CHILE EXTENDING THE "GRAN CONCEPCIÓN" SUBURBAN LINE

Since its inauguration in 2005, the Biotren commuter train system in the province of Concepcion and the Biobio River region has been experiencing a steady increase in passenger traffic.

As a result, the State Railway Company (EFE), together with its subsidiary Suburban Railways of Concepción (Fesub SA) plans to undertake an ambitious plan to modernize this arterial commuter rail network to ensure the highest quality of service, increasing frequency and reducing travel times, thereby substantially improving mobility across the metropolitan area of Greater Concepción.

Idom has had the opportunity to collaborate with EFE in this ambitious plan by participating in the comprehensive project to double the railway line between the stations of Juan Pablo II and Lomas Coloradas (8 km), as well as the extension of the service to Coronel (17 km) including all infrastructure and rail system installations. Idom has also developed the Feasibility Study for the connection between the stations of Concepción and Juan Pablo II. This study also included an alternatives study to extend the metal bridge over the Biobio River (2 km). In addition to these engineering studies, Idom has carried out the technical inspection of urgent works to increase the capacity of the Concepción - Lomas Coloradas section.

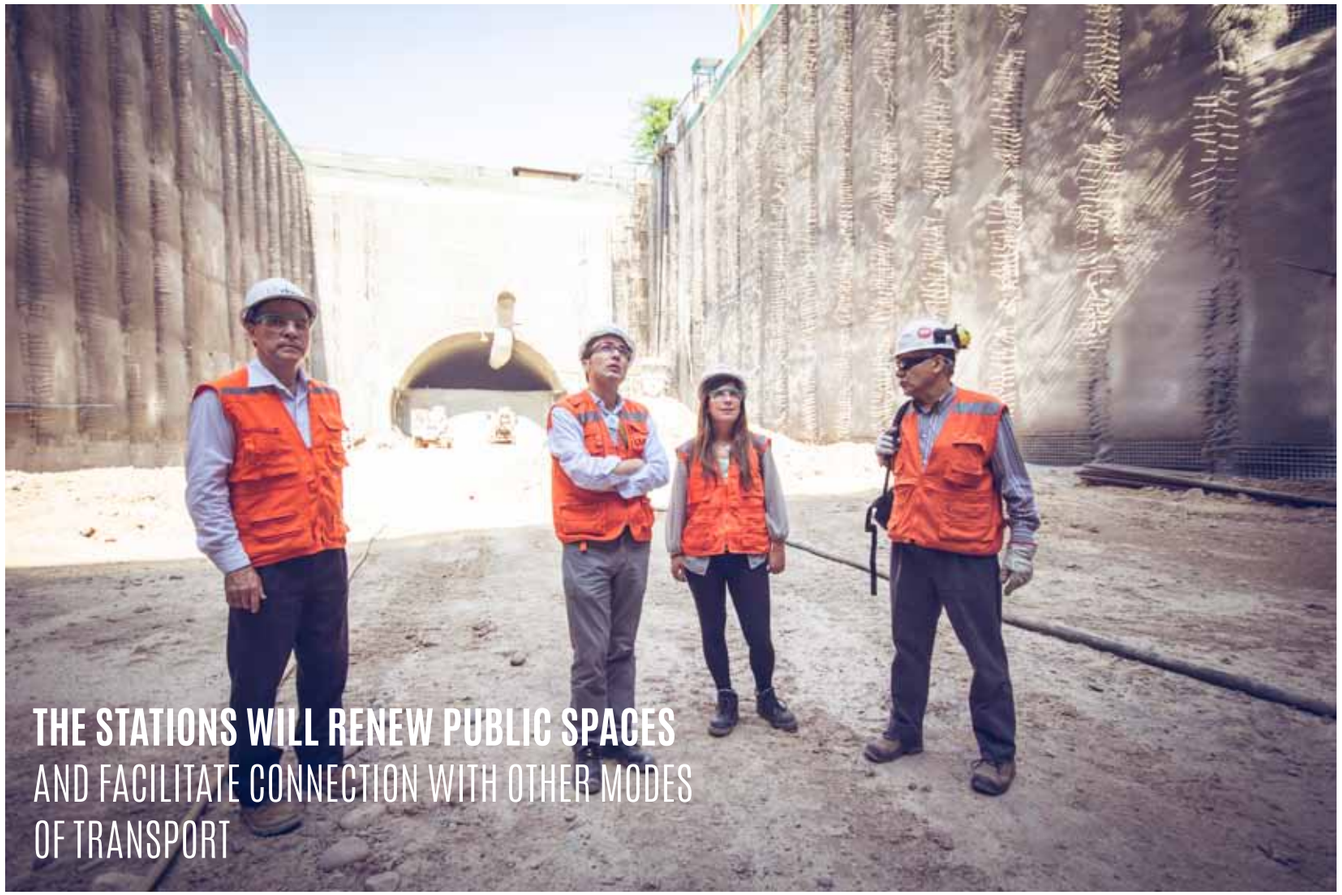
SUBURBAN TRAIN LINE, SANTIAGO-MELIPILLA

In July 2014, the State Railway company EFE awarded Idom the contract to upgrade the Santiago Melipilla commuter line. Known as the "Tren del Maipo", this line has been planned as a high level public transport link between the Central Station of Santiago and Melipilla.

It is estimated that the travel time for the 61 kilometres will not exceed 50 minutes. This means a reduction in the travel time of two hours per person, benefiting more than 30 million users per year. The area of influence of the project has a population of 1.4 million inhabitants.

In total, the line will have 11 stations serving the communities of Maipú, Padre Hurtado, Malloco, Talagante, El Monte and Melipilla. The final investment is around $600 million and will be available in 2016.

Photography / Isabel García Aguirre



CHILE SANTIAGO METRO

There are over 6.5 million inhabitants in the Metropolitan Region of Santiago, representing approximately 40% of the total population of Chile.

At present, the Santiago Metro network consists of 5 lines, covering a total of 105.3 km with 108 stations.

The construction of the Lines 3 and 6 will add a further 37 km below-grade to the network. These lines will have 27 stations and the associated workshops and depots as well as a linking track between both lines.

Idom is currently involved in two contracts for the design of Lines 3 and 6.

LINE 6. DETAILED ENGINEERING

Conceptual design of the 10 stations on Line 6 of the Metro de Santiago, of which 4 will also serve Line 3, and the subsequent detailed engineering. This is a comprehensive project that aims to define a new image for the stations of this new line.

The work of Idom is being developed following on from the civil works of tunnels and previous galleries. It involves the realization of the architectural design projects, structures and station installations as well as all the associated above grade interventions: Access to squares or plazas, passenger services, etc. In addition, works will be developed to extend, improve and connect the 3 existing stations. Solutions will be adopted which will ensure that the operations of the metro service and all above-grade activity is uninterrupted.

The project is an opportunity to integrate urban development and the above-grade transportation network, the provision of various passenger services, as well as the incorporation of cultural activities in the stations (Bibliometro, MetroArte, integration of archaeological remains, etc.).

The work of Idom also includes the development of the iconography and signage project for the new line with the objective of giving it a new identify at all levels.

The project has been developed using BIM models that integrate all specialties in order to coordinate the different interfaces of the various elements and carry out an analysis of the construction sequence of the stations.

LINES 6 & 3. SYSTEMS AND EQUIPMENT

Idom has been awarded the contract to carry out the technical inspection of the installation, testing and commissioning of the systems and equipment of the Lines 3 and 6 project.

The service provided by Idom covers the technical inspection of the following systems: CBTC System, Electric System, Communication System, Centralized Command System, Platform Doors System, Ticketing System and Machines, Escalators and Elevators System, Track and Catenary System, Forced Ventilation System and Pump Handling System.

Some of the unique features of the project include: the renewal of SCADA power of the existing lines while maintaining service, the implementation of a Station Platforms Door System, the Unattended Train Operation (UTO) system, and the Communications-Based Train Control (CBTC) system with ground-train communication by radio.

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Photography / Isabel García Aguirre

CHILE

“In just four years, Idom Chile is already one of the best known engineering firms in the country. Our clients appreciate us for our flexibility in adapting to their diverse needs”

Since its beginnings in 2011, the office in Santiago has grown to over one hundred professionals.

In 2014, our main projects have been in infrastructure sectors, with major contracts for the Ministry of Public Works, the State Railway Company (Empresa de los Ferrocarriles del Estado - EFE), the Metro of Santiago (Empresa de Transportes de Pasajeros Metro de Santiago)

SOME RELEVANT PROJECTS

PRODUCTION OF BIOGAS FROM AGRICULTURAL PLANT IN BIOBÍO
AMERICAN INVESTMENT CORPORATION (IDB Group)

SANTIAGO DE CHILE-RANCAGUA RAILWAY LINE
STATE RAILWAY COMPANY

SAN PEDRO- VENTANAS RAILWAY LINE
STATE RAILWAY COMPANY

EXTENSION OF THE BIOTRÉN SUBURBAN RAILWAY
STATE RAILWAY COMPANY

“EUROPEAN EXTREMELY LARGE TELESCOPE (E-ELT)”
EUROPEAN SOUTHERN OBSERVATORY (ESO)

HOSPITAL OF SALVADOR
MINISTRY OF PUBLIC WORKS (MOP)

Pictured

Andrés Mackenna

PERU

INTRODUCING NEW TECHNOLOGIES INTO TRANSPORT

Given the complex orography of the Peru, the development of the country depends largely on the national transport policy. For this reason, the Ministry of Transport and Communications of Peru is working to improve the operation of the transport network through the application of advanced technologies and Intelligent Transport Systems (ITS). Idom is collaborating in this task.

In recent years, Idom has developed various transportation projects in Lima, Cusco, Tacna and Trujillo. In Lima, road upgrade projects are being carried out on the medium capacity public transport corridors (integration corridors) running along 35 km of the main urban roads. In the case of Trujillo, a pedestrian and cycle path has been implemented in the historic centre of the city. Idom has provided a wide range of services, from the initial planning stages (Urban Mobility Plan) to the construction projects. The renovation project of one of the first railroads implanted in Peru, will improve connectivity between the cities of Tacna (Peru) and Arica (Chile), as well as greatly improving mobility in the city of Tacna.

Photos of Peru / Martín García

PERU NATIONWIDE TICKETING

With a population of 9.5 million inhabitants, the greater metropolitan area of Lima and Callao are modernizing the metro and Bus Rapid Transit (BRT) public transport network, and the Integrated Transport System (ITS).

The Ministry of Transport and Communications of Peru through the Autonomous Authority of the Electric Mass Transportation System of Lima and Callao (AATE), is leading the planning, design, implementation and operation of the concession process for the Metro network in Lima. The network will have a total of 6 lines serving the greater metropolitan area. Line 1 is already operational.

Because of the Idom's extensive international experience, the firm was selected to design a new Integrated Ticketing Systems that permits the use of a single interoperable smartcard card for all public transport.

The design includes the clearing house, the high security cryptographic systems and state-or-the-art contactless technology, establishing a national standard for other cities and regions.

Photos /
The forecasted demand for travellers for Line 1 has been greatly exceeded and there are high expectations for the implementation of the new lines

It is expected that the capacity of the existing collection system will triple

THE SYSTEM WILL PERMIT THE USE OF A SINGLE TRAVEL CARD WHICH IS INTEROPERABLE WITH OTHER MODES OF TRANSPORT IN THE MUNICIPAL AREA OF LIMA AND CALLAO

PERU LIMA CONVENTION CENTRE

The Peruvian government made a commitment with the World Bank and the International Monetary Fund to hold the Board of Governors meeting of 2015. The new Lima Convention Centre (LCC) will expand the supply of event infrastructure to meet this commitment.

The Ministry of Housing, Construction and Sanitation (MVCS), through a framework cooperation agreement signed with the International Organization for Migration (IOM), commissioned the latter to convene a public tender under a turnkey model to develop the project and execute the construction of the Convention Centre.

In 2013, OAS, a construction company of Brazilian origin, contracted the services of Idom-ACXT to develop the conceptual design for the architectural proposal that accompanied the bid submitted by them.

OAS was the winner of the project, and subsequently contracted Idom-ACXT to develop the Final Architectural Design and Technical Architecture Dossier, which provides the basis for the construction of the LCC. Idom is also developing the scheme design for the structures and installations.

Finally, Idom-ACXT has been responsible for coordinating, reviewing and overseeing the development of the Technical Dossier for Structures and installations prepared by the local specialists contracted by OAS.

The conceptual architectural design of LCC pays special attention to the urban context in which it is inserted, revolving around three key concepts: serve as a cultural engine activator of urban space, represent a meeting place rooted in the Peruvian collective culture and become a unique, flexible and technologically advanced architectural landmark.

These three concepts are fundamental in the development of the proposal, virtually summarizing the overall image and section of a building whose floor area of 86,000 m^2 incorporates in its functional program, 18 multifunctional conference rooms, kitchens, restaurant areas and areas for the public and private ancillary services associated with its use.

Left page /
Overview of the convention centre

Right page /
Conference Hall

Infographics /-Poliedro

PERU

“Our structure allows us to integrate all disciplines under one roof and offer the client a unique service”

The relationship of Idom with Peru dates back to 1977, with the opening of our first office to work on the expansion of the steel plant in Chimbote city. From our present office, which opened in 2012, we are attending public and private clients in the sectors of transport, infrastructure, industry, energy, telecommunications, environment and architecture.

SOME RELEVANT PROJECTS

LIMA CONVENTION CENTER (LCC)

100 MW COMBINED CYCLE POWER PLANT (VENTANILLA) & 480 MW CPP (CHILCA)

INTEGRATION OF TRANSPORTATION CORRIDORS IN LIMA

TACNA-ARICA RAILWAY LINE

MEDICAL WASTE MANAGEMENT IN LIMA

Pictured

Paloma Rosa del Castillo, Miguel de Diego Elvira, Javier Álvarez de Tomás, Alberto González Sánchez, José Antonio Fernández Usón

Photography: Martín García & Christian Vinces

SOUTH AMERICA/ PACIFIC

SOME RECENT PROJECTS

Colombia, Soacha

Soacha Industrial Park for Byron Lopez Salazar BLS. ***Business Vision and Strategic Plan, Program needs, Proposed urban planning, Management Plan and Action Plan***

Colombia, Bogota

Diagnostic of Colombian companies belonging to the electric power services subsector for Bancóldex services. ***Consulting Services***

Colombia, Valledupar

Valledupar Events Centre for the Governor of the department of César. ***Architectural Design***

Colombia, Santander

Characterization map of international supply chains for the Department of Santander and projects to improve the competitiveness of regional companies. ***Logistics Studies***

Chile, Santiago

Metro Stations for Line 6 for the Passenger Transport Company, Metro SA. ***Conceptual design and detailed engineering***

Colombia, Ibagué

Update Regional Competitiveness Plans, including a methodology for prioritizing projects for the Chamber of Commerce of Tolima. ***Consulting Services***

Ecuador, Quito

Development, construction and implementation of Cadastral GIS, District Data Infrastructure (DDI) and District Indicators System (DIS). ***Geosystems and Cadastre Systems***

Peru, Lima

Lima Convention Centre for the construction firm OAS. ***Ideas Competition, Conceptual design, Preliminary and detailed architectural design, Report Drafting, Review and coordination of Engineering Project***

Peru, Border Crossings

Strategic Plan for the Development and Modernization of Border Crossings of Peru 2013-2021 for the Ministry of Foreign Affairs. ***Consulting Services***

Peru, Talara

Proposed extension and modernization of the Talara refinery for Petroperú. ***Project Manager services (analysis and confirmation of the validity of designs, activity tracking Quality, Safety and Construction)***

Peru, Lima

Design of the interoperable ticketing collection system of Lima Metro for the Autonomous Authority of the Electric Mass Transportation System of Lima and Callao. ***Consulting Services***

Peru

Development of the Architecture and Master Plan of Intelligent Transportation Systems (ITS) for Peru for the Ministry of Transport and Communications. ***Consulting Services***

08

SOME PROJECTS

ELEVATED METRO BRAZIL
DIADEMA CAMPUS BRAZIL
GARE PARK BRAZIL
PROFILE OF NATURAL HAZARDS PARAGUAY
OTHER PROJECTS

SOUTH AMERICA/ATLANTIC

100

NEW KILOMETRES FOR THE SÃO PAULO METRO

BRAZIL

ALL ABOARD THE MONORAIL

With over twenty million inhabitants, São Paulo has had a metro network since 1974. The network currently has 74.3 km of track and 64 stations. The network is undergoing an expansion process and a further 100 km are either under construction or planned.

Pictured / "Monotrilho" L15
Photography / Andreia Faley

SÃO PAULO
MONORAIL

Running 17.6 km, Line 17 is currently under construction. This new line will connect Congonhas Airport with lines L1, L5 and L4 the Metro network and L9 of the rail network. The first phase will link Congonhas Airport with Morumbi.

The construction of this new line, the second of its kind in the city, is unique in that it is an elevated monorail. This means that it can be planned and constructed faster than a below-grade Metro system, as fewer expropriations are required and there are less interruptions to the existing service.

The system consists of an electric train, pneumatic lift, and rubber-tired on both sides of the beam for traction and to stabilise the vehicle. The demand estimated for the new Line 17 will be some 20,000 passengers per hour in each direction.

Idom is developing the construction project and Technical Assistance Projects for four stations, the switch yard and the workshops for the line. On a plot of 60,000 m², the complexity of the switch yard project makes it unique, in that it will be elevated on pillars at two levels over the avenues of the city.

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Left page /

Urban integration of the elevated monorail

Right page /

Switching yard, offices and workshops

BRAZIL MASTERPLAN OF THE DIADEMA CAMPUS

Idom-ACXT has been contracted to develop the Diadema Campus Masterplan of the Universidade Federal de São Paulo - UNIFESP. The project is to conduct a study on the current status of campus and from this develop infrastructure scenarios for the short, medium and long term.

Idom-ACXT has devised future campus buildings and the growth strategy of the same, making the campus more sustainable, accessible and appropriate to the needs of teachers and students.

The proposed solutions can transform UNIFESP into a contemporary, active, attractive and welcoming campus, integrated into the urban fabric of the city, which will act as structuring and revitalizing element in the area.

Photo /

View of one of the buildings designed for the Campus

Infographic / Andreia Faley

DESIGN OF THE GARE PARK

Located in the city of Passo Fundo, the Gare Park (Parque da Gare), designed in the eighties, is located next to the old train station in an abandoned area. It has been decided to revitalize this area, as it is considered to be an area of vital importance in the city.

The project, developed within this commitment includes the introduction of some important infrastructure, such as the producers market. This market will replace the existing market which lacks the necessary conditions and will be located in the building of the former Gare. A new cafeteria with an information point is planned to replace the existing small outdoor bar. There will also be a new healthcare services and maintenance area, as well as a multipurpose area and support area. In addition, the lower part of the park beside the lake is covered. The latter is also revitalized and integrated into the design of the park. The historic infrastructures of the park have been given greater importance through spatial integration and their full restoration, keeping original features.

Photo /

View of the park including the lake

Infographic / Grupo Garoa

THE PROJECT AIMS TO REGENERATE AN AREA OF VITAL IMPORTANCE TO THE CITY

BRAZIL

“Brazil is undertaking projects that are increasingly larger and more complex”

Idom began working in Brazil in 1998 and since then we have been expanding the range of services offered to meet the growing demand and diversity of projects. In 2014, some of the clients we have been working with include the Metro of São Paulo, the São Paulo Metropolitan Train Company (Companhia Paulista de Trens Metropolitanos), Gamesa, and the Federal University of São Paulo, among others.

SOME RELEVANT PROJECTS

MONORAIL LINE OF THE METRO DE SÃO PAULO (LINE 17)
SÃO PAULO METROPOLITAN TRAINS
COASTAL STRATEGY OF BRAZIL
NACELLES PLANT
UNIVERSITY CAMPUSES OF DIADEMA AND SANTOS
URBAN PARKS - PARQUE DA GARE
NATURAL PARKS
SUSTAINABLE MOBILITY

Pictured
David Moncholí

MANAGEMENT OF NATURAL HAZARDS

Paraguay is a region which is very vulnerable to natural hazards such as flooding. In order to provide Paraguayan cities with greater security, resistance and resilience, Idom has collaborated with local authorities in developing an urban development strategy to implement a resilient city model which is specific to each context.

PARAGUAY

PROFILE OF NATURAL HAZARDS

Idom has studied the natural hazards in eight countries in South America, Chile and others. In the picture, Chiloe Island in Chile
Photography / Jesús Bermejo

SOUTH AMERICA/ ATLANTIC

SOME RECENT PROJECTS

Argentina

Sustainable growth in Santa Cruz and Neuquem for YPF Argentina. Urban planning required for future Poles of Employment. ***Resilient Development Strategy***

Argentina

Call Centre in Santa Fe for MAPFRE Inmuebles S.A. ***Technical Assistance***

Brazil

Diagnosis of the shipping industry in Brazil with the aim of developing coastal transport. Secretaria de Portos da Presidência da República. ***Consulting Services***

Brazil, Recife & Fortaleza

Planning cycling mobility with the aim of making the bike a common mode of transport. Secretary of Cities do Governo de Pernambuco and Prefecture of Fortaleza. ***Consulting Services***

Brazil, Guarantiguetá

Integrated manufacturing of flat and processed glass for AGC. ***Civil engineering works, building and utilities, procurement, construction management and commissioning***

Brazil

Bioethanol residue from the sugar industry plant. ***Review of the conceptual engineering developed by Abengoa Bioenergy New Technologies and complete basic engineering for the facilities***

Brazil, Camaçari

Expanding the Gamesa nacelle plant to increase production capacity and enable the manufacture of new wind turbine models. ***Comprehensive Engineering Services***

Brazil

Telecommunications and technology systems Master Plan. Companhia Paulista de Trens Metropolitanos (CPTM). ***Consulting Services***

Brazil

Optimization study of the nationwide agribusiness logistics network for Bunge Alimentos, the world's largest exporter of soybeans. ***Logistics and Operations Consulting services***

Paraguay

Natural risk profile of Paraguay, for the Inter-American Development Bank. ***Technical assistance for the identification and management of natural hazards***

09

SOME PROJECTS

WATER WORKS LAOS
TRANSPORT STUDIES LAOS
HANOI METRO VIETNAM
COMBINED CYCLE PLANT BANGLADESH
CONVENTION CENTRE INDIA
COMBINED CYCLE PLANT TURKEY
OTHER PROJECTS

ASIA

WATER WORKS AND TRANSPORTATION STUDIES

Idom's commitment to emerging Southeast Asian countries has been strengthened in recent years. We are currently working for major development agencies, such as the Asian Development Bank and the World Bank.

In Laos, Idom is a pioneer in the development of watershed management studies as well as the implementation of modern and sustainable public transport systems. In addition, through our training programs, we contribute to the development of present and future generations of technicians and specialists in the country.

Photos of Laos / Carlos Olmedillas

LAOS

HYDROELECTRIC WORKS

In late 2011, Idom began working in the Democratic Republic of Laos to provide technical assistance to the Ministry of Environment for the integrated management of water resources of the Nam Ngum River.

We carried out the early stages of the drafting the Basin Plan, the annual reports on the status of the planning and mitigation measures against the possible impact of climate change.

The work of Idom involved the implementation of participatory processes with collaboration between different water-related agents and the adaptation of current trends in water management to the context of Laos. We have also participated in preparing the first version of the methodological guide for drafting the River Basin Plans.

The experience gained in this field has led us to begin collaborating with the Ministry of Energy and Mines, in achieving their objective of maximizing electricity production in the three basins of the country with the greatest hydropower potential (Nam Ngum and Nam Ou and Xekong), improving the management these basins, and implementing an IT system in the Department of Planning to continue this work in the future. It is planned to build 40 more dams in these basins with more than 5,000 MW installed capacity. In addition, experts from Idom are carrying out capacity building activities, giving courses and seminars on water management of the basins. This training also includes the use of the necessary tools.

Left page /

Dam and Hydroelectric station of Nam Ngum

Right page /

Carlos Agudelo, Chantaphone Panyathong, Department of Electrical Generation and Planning, Mr. Manopaphath Phidsamai, Department of Electrical Generation and Planning, Lamphone Dimanivong, Deputy Director, Department of Electrical Generation and Planning, Phouanphanh Souvannabouth, Consultant for the National Hydropower Development Program at the Ministry of Energy and Mines National Consultant, Mr. Kanya Senethavisouk, Department of Electrical Generation and Planning, Somsai Champathengkham, Model Specialist & Jose Luis Palencia

Photography / Carlos Olmedillas

TRANSPORT STUDIES

Vientiane is the most populous city in the country and the number of motor vehicles is increasing rapidly. The congestion caused at peak times requires the urgent creation of a public transportation system.

Among other tasks, Idom has developed proposals for the measures to be taken to improve traffic management and safety, promote public transport, organize the parking of vehicles in the centre, and create Park & Ride facilities on the outskirts of the city to reduce the use of private vehicles.

With all this, Idom is contributing to the implementation of a Sustainable Transport System in Vientiane.

Photography / Carlos Olmedillas

IMPORTANT URBAN TRANSPORT PROJECTS IN VIETNAM

HANOI METRO

VIETNAM

THE NEW METRO NETWORK

The Vietnamese authorities have made a commitment to improving the quality of life of the inhabitants in largest cities of the country.

In the capital Hanoi, a comprehensive Metro network is being developed. Idom is working on the Pilot Project of the network (Line 3).

Photos of Vietnam / Carlos Olmedillas

HANOI METRO

Given the experience of Idom in the implementation of all the different phases of metro projects, the Vietnamese authorities has contracted our firm to carry out the project management of the new Line 3, as well as a training program for Vietnamese technical staff.

Awarded in January 2013, the contract represents the second opportunity for Idom to participate in an important metro project in Vietnam. Idom has already carried out the feasibility studies and preliminary design for the metro system of Ho Chi Minh City.

The pilot project of the Hanoi metro line will have a total length of about 12.5 km, of which 4 km will be below-grade. In all, 12 stations will be built, 8 above-grade and 4 below-grade. The depots and workshops located in the area of Nhon are already under construction. Construction work has also commenced on the elevated viaduct section and the stations.

The total investment of 1,176 million euros includes the acquisition of state-of-the-art equipment for signalling, communications and line operation as well as the most advanced rolling stock available.

IN HANOI AND HO CHI MINH CITY, IDOM HAS WORKED ON A TOTAL OF 40 km AND 38 METRO STATIONS

BANGLADESH
COMBINED CYCLE POWER PLANT

As one of the most densely populated countries in the world, Bangladesh has high energy requirements. A few years ago, the government launched the Energy Development Plan for Bangladesh to bring electric power to the entire country by 2020.

Included in this development plan, is the Siddhirganj 340 MW combined cycle plant which is being built by Isolux Corsán in one of the main industrial centres in Bangladesh, located 20 km from the capital, Dhaka. The commissioning of the plant, which is scheduled for early 2016, will strengthen the county's electricity system, ensuring greater reliability for the network.

The plant, which uses the latest technology, is a multi-shaft configuration with a GE 9FB Gas turbine burning natural gas and a GE Steam Turbine.

Idom has developed the basic and detailed engineering for the cycle that has been designed to be initially commissioned as a simple cycle and later upgraded to a combined cycle.

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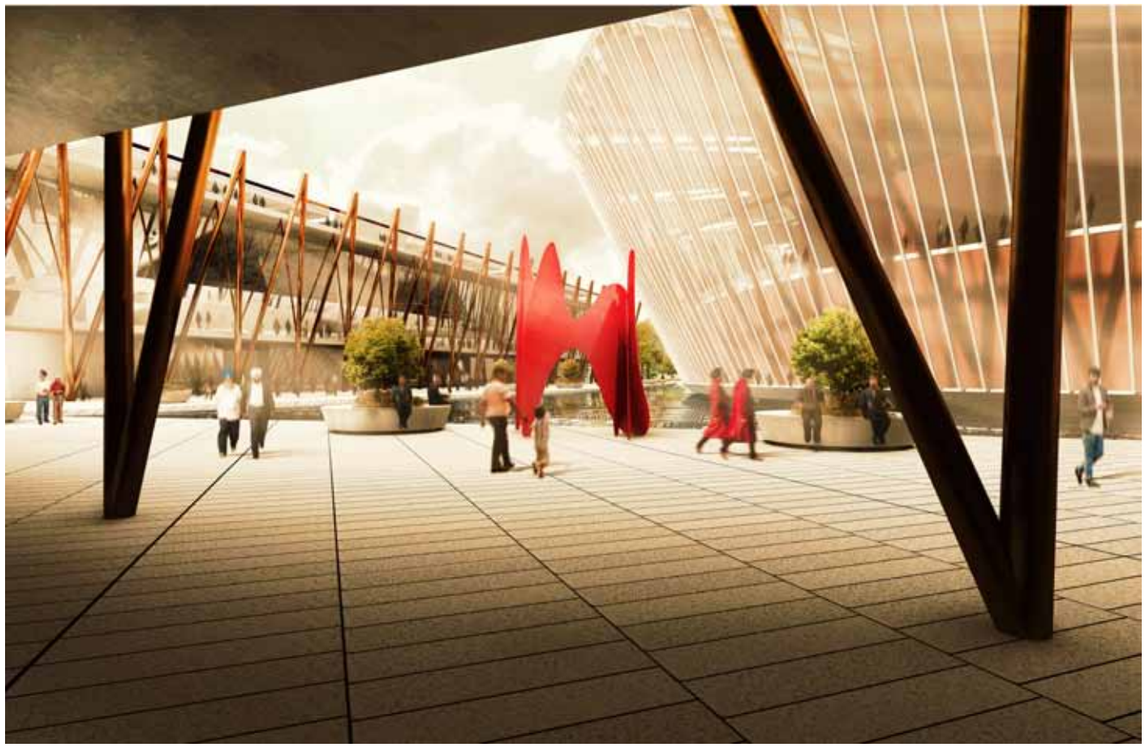
Infographics / Iñigo Gutiérrez Artetxe

THE GOVERNMENT OF BANGLADESH WANTS TO ACHIEVE THE ELECTRIFICATION OF THE ENTIRE COUNTRY BY 2020



INDIA MOHALI CONVENTION & EXHIBITION CENTER

As part of the continued expansion and redevelopment of the Northern Indian State of Punjab, and part of the iconic Le Corbusier designed city of Chandigarh, IDOM were selected by the Punjab Infrastructure Development Board as the design team for the New Mohali Convention & Exhibition Centre.

Idom are collaborating with CP Kukreja Associates (India) in the project, which is inspired by the traditions and cultures of the local Sikh population. The project defines the masterplan of the 50 acre site, providing 450,000 m^2 of new commercial and hospitality accommodation, as well the design concept for the new 5,000 seat convention centre building and the 40,000 m^2 exhibition halls.

A SYMBOLIC MASTERPLAN, INSPIRED BY THE CULTURE AND TRADITIONS OF SIKHISM

Infographics / GLT Infografías

TURKEY COMBINED CYCLE POWER PLANT

New 840 MW Anadolu Combined Cycle Power Plant for Gama - General Electric (GE)

In late August 2014, following the commissioning of the 871 MW combined cycle plant in Erzin, located in the southwest of Turkey, the plant was delivered to the client. The plant has been built by the GAMA-GE consortium with the participation of Idom in the development of the detailed engineering and the provision of support services.

This plant is one of the investments that are being made in the country in order to meet the growing demand for energy. With this same objective, the GAMA-GE consortium is building another combined cycle plant in the Central Anatolia region of Turkey, located 80 km east of Ankara in the Kirikkale province. This plant will supply around 50% of the electric energy consumption of Ankara, 2.5% of the electric demand of the entire country.

The plant, with a capacity of 840 MW, is a multi-shaft configuration with two GE 9FB Gas Turbines firing natural gas and a GE Steam Turbine. The project includes the construction of a new 380 kV switchyard for connection to the grid. The target date for the procurement of works is for late 2016.

Once again, GAMA-GE have chosen Idom to develop the engineering.

THE NEW PLANT WILL COVER AROUND 50% OF THE ELECTRICITY CONSUMPTION OF ANKARA

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Infographics / Iñigo Gutiérrez Artetxe

ASIA

SOME RECENT PROJECT

Bangladesh, Shiriddirgan

340 MW Combined cycle power plant with a GE 9FA gas turbine using natural gas for Isolux Corsán. *Basic and detailed engineering*

China

Railway emergency management system for the Ministry of Railways funded by ADB (Asian Development Bank). *Consulting Services*

China

Implementation of a SAP business management system for the Onnera Group. *Consultancy Services for design, construction and commissioning of logistics and finance processes*

Philippines

Wastewater, waste and watersheds managementin in Cagayan de Oro City. Cities Development Initiative for Asia (CDIA). *Feasibility study*

India, Chandigarh

Mohali Convention and Exhibition Centre for the Council for the Development of Infrastructure of the State of Punjab. *Architectural design*

India, Naya Raipur

New building for the Congress, the Senate and General Assembly of Chattisgarh. Board of Naya Raipur. *Ideas Competition*

India

Technical cooperation in the field of clean energy and environment in India. *Technical assistance promoted and financed by the European Union*

Indonesia

Development and organization of the entities that provide management and operation sanitation and water treatment services in 5 cities for the Asian Development Bank (ADB). *Technical Assistance*

Kazakhstan, Atyrau

Tranche 3 80 MW Open Cycle with two 40 MW 6FB gas turbines and three 5.2 MW diesel generators in Atyrau for Gate. *Basic and detailed engineering services*

Laos

Regulation of the Nam Ngum river basins for the Ministry of Environment. *Development of a watershed plan*

Malaysia, Johor Barhu

Cold rolling stainless steel for Bahru Stainless (Acerinox Group) *Detailed engineering services for phases I and II of the project*

Russia

Sredneuralskaya 410 MW combined cycle with a GE 9FB gas turbine and Skoda steam turbine for Iberdrola. *Basic and detailed engineering services*

Russia, Slavyansk

Refinery. *Basic engineering extended for the OSBL units of amines, acid water, hydrogen and sulphur and technical management of design units with licensed technology and integration with project engineering*

Russia

Business Plan for a manufacturer of piping for the oil and gas sector. *Consulting Services*

Vietnam

Hanoi Metro for the Vietnamese Authorities. *Project Management & Training Program*

10

AN ASSOCIATION OF PROFESSIONALS
ATTENTION TO THE CLIENT
PROFESSIONAL DEVELOPMENT
GROWTH
GLOBAL CONSULTANT
SOME FIGURES
OFFICES

ABOUT IDOM

AN ASSOCIATION
OF PROFESSIONALS

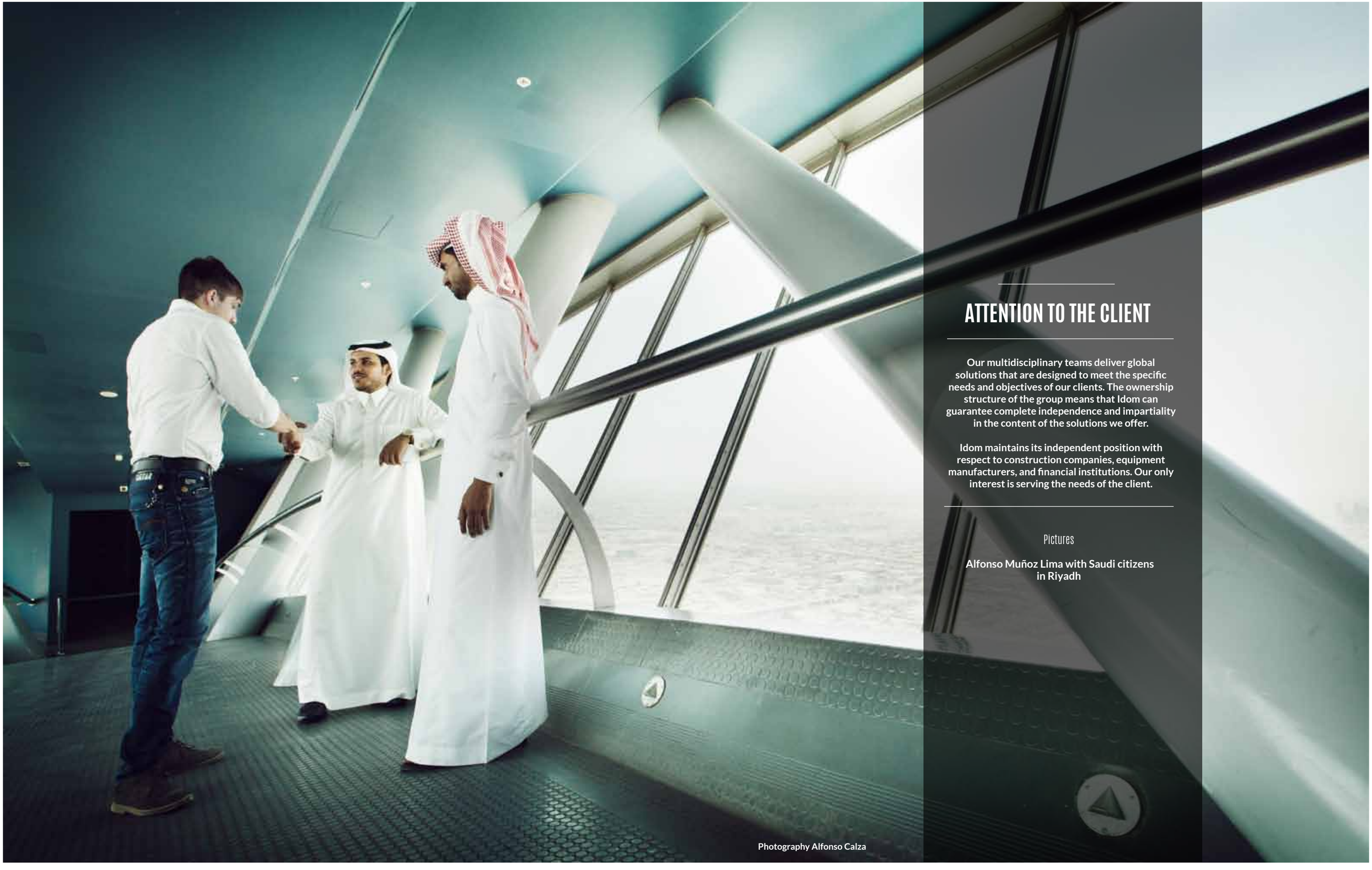
Idom is an employee-owned organization. The opportunity for all members of staff at all levels to become a shareholder of the Group creates a culture of engagement and collaboration, breaking down the barriers of operating in a global market.

This culture means that each and every professional of the Group shares the philosophy that the client is our reason d'être.

Pictured

João Guimarães Leitão, Ahmed Al Ameri & Diego Abril Saez

Photography Alfonso Calza



Photography Alfonso Calza

ATTENTION TO THE CLIENT

Our multidisciplinary teams deliver global solutions that are designed to meet the specific needs and objectives of our clients. The ownership structure of the group means that Idom can guarantee complete independence and impartiality in the content of the solutions we offer.

Idom maintains its independent position with respect to construction companies, equipment manufacturers, and financial institutions. Our only interest is serving the needs of the client.

Pictures

Alfonso Muñoz Lima with Saudi citizens in Riyadh

PROFESSIONAL
DEVELOPMENT

The professionals that make up Idom are our most important resource. Therefore, continuing professional development is promoted within the Group to develop and increase the knowledge of our staff, ensuring that our clients receive the highest level of service.

Our professionals work within the support structure of the Idom Group, giving them the resources to develop personally and as part of the group. Professionalism is key to the success of our projects.

Pictured

Alicia Mouriz & Mikel Lotina in London

Photography Alfonso Calza

GROWTH

The Idom Group has experienced important growth over the last decade. The foundation stones have been laid to continue this growth, consolidate our markets, and enter new ones.

The competitive advantage of Idom lies in our human capital and the global structure of the company. This combination means that we are now successfully undertaking large-scale projects which significantly impact on the development of many countries.

Pictured

Alexander Azpitarte & Javier Unda in Minneapolis

Photography Alfonso Calza

GLOBAL CONSULTANT

With 38 permanent offices in 18 countries and numerous project offices, the Idom Group operates in close proximity to the client. In almost 60 years, Idom has established a set of core values, ethics, and a philosophy that has been enriched by our implementation in other countries.

The global solutions and services that we deliver to our clients draw on the experience and expertise of the entire company, focusing on the specific requirements of each project.

Pictured

Gonçalo Sanches, Martiniano Pinto, Helena Jacira & Octávio Maca in Luanda

Photography Carlos Olmedillas

SOME FIGURES

PROJECTS IN

122

COUNTRIES

38

OFFICES

CONTRACTED

PROFESSIONAL SERVICES

€ 250

MILLION

Pictured

Mayca Egea, architect in the remodelling of the Santiago - Melipilla railway line

Photography Isabel García

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