



Annual Report

**2013**

Activity Report





Annual Report  
**2013**  
Activity Report



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## Letter

**Luis Delso Heras**, Chairman

## Corporate reinforcement

Isolux Corsán's financial year 2013 can be defined by the consolidation of the change we undertook a year before through the corporate reinforcement of our business areas. The application of the Group's new structure has proved the resilience of our corporate culture. People are the fundamental basis of Isolux Corsán, however with this change we have shown our capacity to evolve, turning individual endeavour into a collective working philosophy.

Thanks to these capacities, and to the Group's wise internationalisation strategy, today we continue to talk about achieved objectives, growth and yet another year of reaching new heights.

Isolux Corsán closed 2013 with an approximate revenue of €3,202 M and an EBITDA of €569 M, 9.2% more than the previous year.

Our business portfolio reached €49.107 M, a historic figure with growth of 5.6%, and we achieved this by strengthening our international position. The foreign market represented 77% of the total turnover and 95% of annual contracting.

The incessant development of our operational capacity in global terms endorses our ability to push ourselves to the limit. Without this key factor it would be impossible to understand how we skillfully negotiated a historical economic



**Our global capacity** endorses  
our ability to push ourselves to the limit”

crisis, an unparalleled period of disinvestment in Spain’s history, a time of social and economic redefinition on a worldwide scale.

Against this backdrop, the achievements made by the Group, acquire, if possible, greater significance. The penetration of the Canadian market and the new contracts concluded in the USA provide us with an excellent vantage point for competing on the American continent where we already concentrate 71% of our international business and 55% of the total. Brazil and Mexico were undoubtedly other key countries in 2013. In Brazil we completed the construction of 1,191 km of high vol-

tage transmission lines in the Amazon; a hugely ambitious projects which took five years and which we manage today under concession, as well as winning new contract awards such as the construction of the BR-381 road.

This global vocation is rounded off by other milestones reached in India, which continues to be a key market for us, Central Asia and Africa. Given the above, we now operate in more than 40 countries.

The internationalisation process which we started over a decade ago is but a pale reflection of the global reality in which we find ourselves immersed. Traditional national frontiers have opened

up to an interpretation of the market on a worldwide scale, however whilst being extremely sensitive to the local peculiarities found where we operate.

The Group’s reality is the reality of the society we belong to. A global society in which traditional economies coexist in an equilibrium which has still to take shape, with emerging economies which have consolidated themselves in little more than five years.

In 2013, the Isolux Corsán Group consolidated its position as an active agent in this global and changing reality. We have done well. That forms part of the past. We will do even better. That is our path.





## Board of Directors

(to December 31, 2013)

### **Chairman**

Luis Delso Heras

### **Vice Chairman**

José Gomis Cañete

### **Chief Executive**

Antonio Portela Álvarez

### **Secretary not sitting on the Board**

Juan Francisco Falcón Ravelo

### **Members**

Serafín González Morcillo  
Francisco Moure Bourio  
Ángel Serrano Martínez-Estélez  
Lorenzo José Martínez Márquez  
José María de Torres Zabala  
Javier Gómez-Navarro Navarrete  
Antonio Hernández Mancha  
José Luis Ros Maorad  
Jordi Casas Bedós  
Jorge Mercader Miró  
Francesc Bellavista Auladell

# The Group in Figures



**1,643 km** of motorways under concession in Brazil, India, USA, Mexico and Spain



**5,959 km** of high voltage transmission lines under concession

## International Presence

% Revenues by geographic area

### Europe

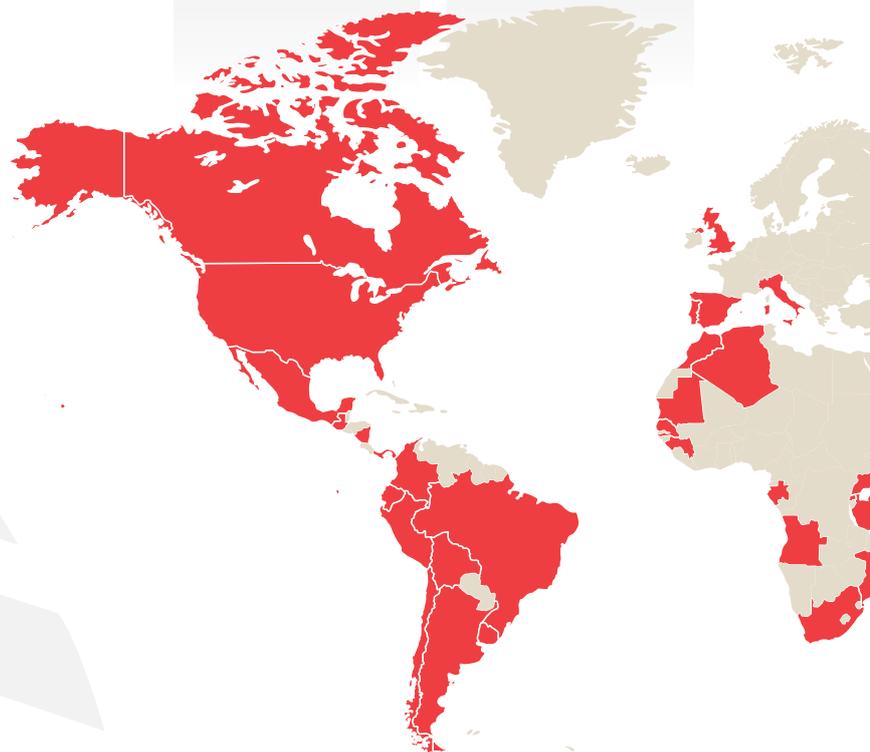
27%

Italy  
Poland  
Portugal  
Spain  
United Kingdom

### America

55%

Argentina  
Bolivia  
Brazil  
Canada  
Chile  
Colombia  
Ecuador  
Guatemala  
Mexico  
Nicaragua  
Panama  
Peru  
Puerto Rico  
Uruguay  
USA





**326 MW** in operation and development of photovoltaic solar energy



**584 MW** of total accumulated power in wind farms

### Africa

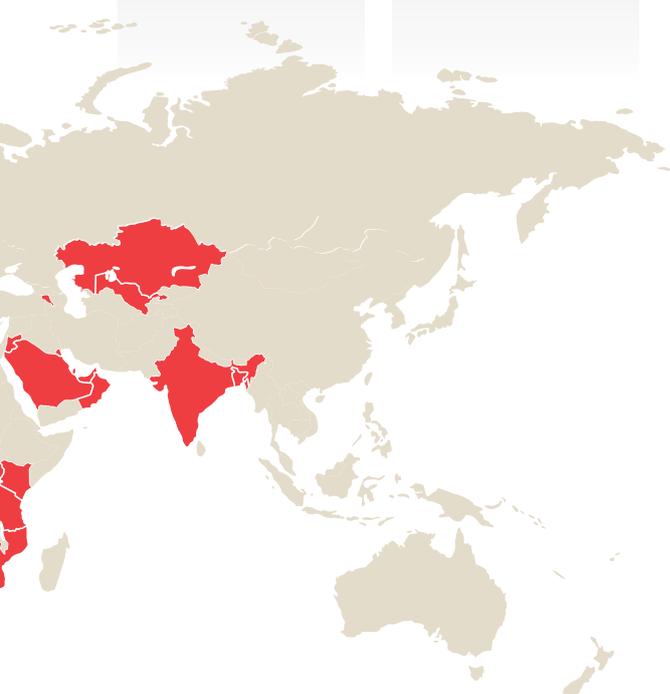
4%

- Algeria
- Angola
- Equatorial Guinea
- Gabon
- Kenya
- Morocco
- Mauritania
- Mozambique
- Rwanda
- Senegal
- South Africa
- Tanzania
- Uganda

### Asia

14%

- Armenia
- Bangladesh
- India
- Jordan
- Kuwait
- Oman
- Qatar
- Saudi Arabia
- Uzbekistan



### Revenues

**€3,202 M**

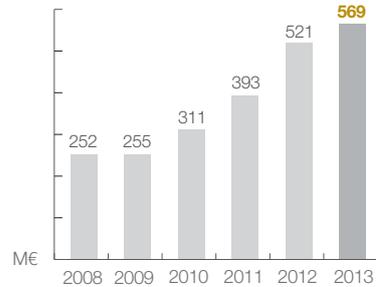
-6.2%



### EBITDA

**€569 M**

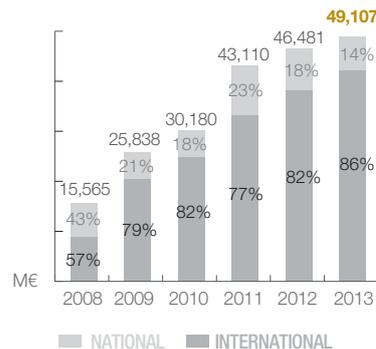
+9.2%



### Portfolio

**€49,107 M**

+5.6%





## Consolidation of a global business

Isolux Corsán has, once again, strengthened its international position. In 2013, the foreign market represented 77% of the total turnover and reached a historic high. In 2012 this percentage was 63% and, four years before, international turnover barely reached 43% (in 2009), which confirms the success of the company's internationalisation strategy.

The Group's international commitment, which has contributed to withstanding the continued drop in contracting experienced in Spain in recent years, combines the Group's presence in emerging countries with consolidated economies. This strategy has stimulated general growth in business areas, which has been particularly noticeable in Infrastructures and T&D. In 2013, Isolux Corsán opened seven new offices and its international pres-

ence exceeded 40 countries, with important activity in America (USA and Latin America), where 55% of international business is concentrated.

Brazil and Mexico were countries where Isolux Corsán's operations have, once again, obtained outstanding results. Amongst the milestones of 2013, it is worth highlighting the contracting in Brazil of the first road project which was executed 100% according to an EPC contract to widen 200 km of the BR-381 road for the amount of €410 M. This is the main link between the cities of Belo Horizonte and Governador Valadares, in the State of Minas Gerais. In this country the company was also awarded the first lot of the north section of the Rodoanel Mario Covas in Sao Paulo, the only ring road for the



city of Sao Paulo with an investment of €238 M. This continent also bore testimony to the project undertaken in the Altamira Plant in Mexico, where the Group is renovating and modernising the Altamira Thermolectric Power Plant in the state of Tamaulipas, for the amount of \$380 M.

Isolux Corsán has positioned itself as an international leader in metropolitan works. Last year the company inaugurated the Oran Tramway in Algeria and was commissioned to execute the first line of the Mostaganem Tramway in the same country. In this area, it is also worth mentioning the execution of a section of Line 3 of the Santiago de Chile Underground, as well as the contract award for two projects in India for the Delhi Metro Rail Corporation.

#### **Energy: expansion into new markets**

In the energy sector, in which Isolux Corsán is one of the main operators in the world for T&D installation and maintenance and a leader in the construction of EPC generation plants, the company has consolidated its growth on the African continent with new T&D contracts in Uganda, Tanzania and Rwanda.

At the same time, Isolux Corsán continues to strengthen its position in the energy market in Asia where it was awarded its first contract in Kuwait for the construction of 172 km of high voltage lines and has concluded two new T&D contracts in India.

With regard to the photovoltaic sector, amongst the most outstanding milestones of 2013 was the expansion of the business to East Africa and penetra-

tion of South Africa with the Boshof photovoltaic farm.

#### **Trends in growth**

Another particularly important area of development can be found in North America. The USA, where the gradual opening of new operations was maintained, Canada and Mexico are countries where the projects identified could bear their fruits in 2014. Likewise, it is expected that the Group's activity in India will continue to produce good results.

This expansion trend is planned for 2014 when it is expected to complete presence throughout Africa's coast (which currently represents 4% of the Group's revenue) and to ratify entry in Central Asia where the growth forecasts in countries such as Kazakhstan and Uzbekistan are positive.



AC

WETT - Wind Energy Transmission Texas USA

Activity  
Report

# Activity



# 1

High voltage lines Orixima-Tucuruí **Brazil**



# Concessions



## Growth and diversification

Isolux Infrastructure, one of the Group's subsidiaries, which manages the area of motorway concessions, transmission lines and photovoltaic solar energy, consolidated its activities in 2013 with significant growth abroad. Diversification in the concession sector has been a decisive factor in this evolution, primarily in countries such as the USA, where the company was awarded a new motorway and connected a photovoltaic power plant in 2013.

# Strategic commitment abroad

## Brazil, India and the USA, at the heart of international operations

The concessions area for transmission lines closed 2013 with the start of operations in Brazil for the Amazon Project, one of the most important energisation actions in the whole of Latin America which has required constructing 1,191 kilometres of transmission lines in the heart of the Amazon region.

The company confirmed its strategic commitment to Brazil with the award of the new Itacaiúnas line with a length of 563 kilometres which will enable connecting the two projects in which Isolux Infrastructure is participating in this country: The Amazon and IENNE (Interligação Elétrica Norte e Nordeste), the latter with a total of 720 kilometres of transmission lines and which has been in operation since 2010. Through construction, operation and maintenance, Isolux Corsán manages a total of 3,842 kilometres of lines through seven concessions in this country.

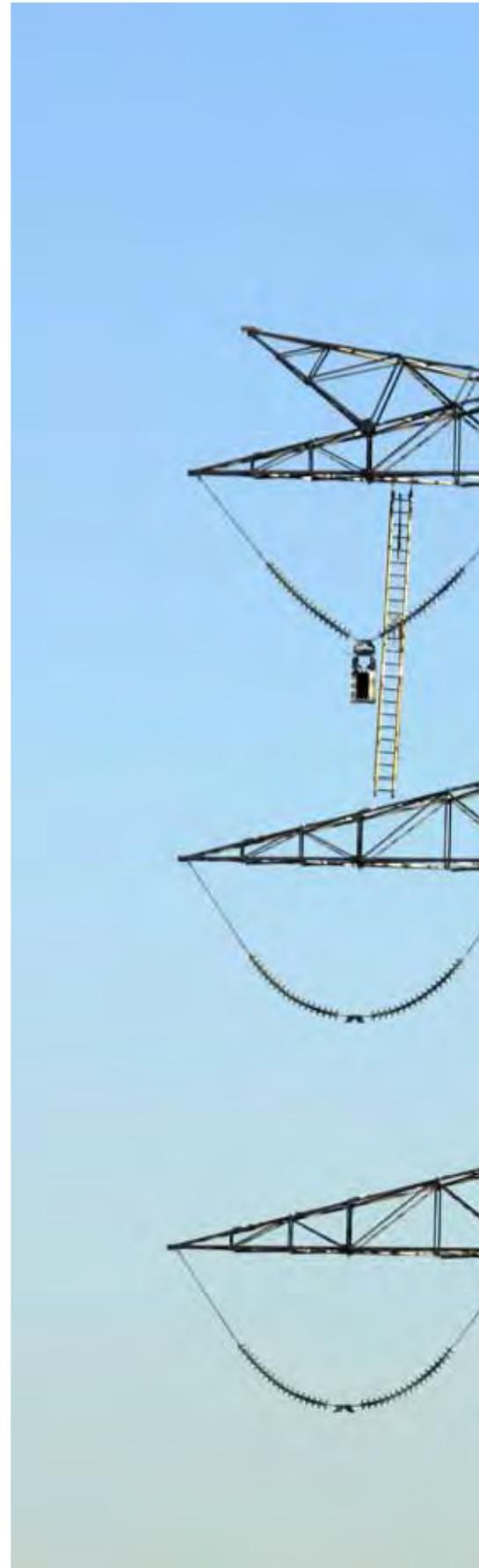
In the USA the Group is continuing with the WETT Project (Wind Energy Transmission Texas); a concession for the construction, operation and maintenance of 605 km of 345 kV transmission lines and six associated substations in Texas which it manages as part of a consortium with Brookfield Asset Management, the Canadian investment fund.

The works in India are continuing at good pace with the construction of 1,512 kilometres of high voltage transmission lines in Uttar Pradesh, the most populated state in the country. This project, the most important with these characteristics awarded in India, has a concession for 37.5 years and includes the construction and management of 765 kV and 400 kV lines, two GIS substations and three AIS substations.

Overall, the Group manages a total of 5,959 kilometres of transmission lines under concession.

### TRANSMISSION LINES UNDER CONCESSION 2013

Lines	Km	Country
CPTÉ - Cachoeira Paulista	181	Brazil
IENNE - Interligação Elétrica Norte e Nordeste	720	Brazil
JTE - Jaurú Transmissora de Energia	940	Brazil
LXTE - Linhas de Xingú	508	Brazil
LMTE - Linhas de Macapá	683	Brazil
LTTE - Linhas de Taubaté	247	Brazil
LITE - Linhas de Itacaiúnas	563	Brazil
SEUP - South East Uttar Pradesh	1,512	India
WETT - Wind Energy Transmission Texas	605	USA



High voltage pylons for the WETT line **USA**



5,959

**km of transmission lines** managed  
by Isolux Corsán in strategic projects in Brazil,  
India and the USA

# More kilometres of motorways in operation

**The company is undertaking its first project in the sector on US land with the extension of the I-69 in Indiana**

The area of motorway concessions concentrated its activities in 2013 in Brazil, India, Mexico, Spain and the United States, countries in which it builds and manages 1,643 kilometres of motorways. 1,400 kilometres of these are currently in operation.

During early 2014, the company became the preferred bidder for the extension project for section 5 of the I-69 motorway in Indiana. This contract, the company's first in the motorway sector in the United States, will last for 35 years. In Brazil, construction works continued on the BR 116 and BR 324 roads, with a length of 680 kilometres in the state of Bahia, which constitute one of the most ambitious concession projects in the country and one of largest road concessions in the world. The BR 116 is a north-south communication link in the country which goes through the areas with greatest development potential in the country and the BR 324 connects the cities of Salvador and Feira de Santana and the

BR 116. These infrastructures form part of the Growth Acceleration Programme (PAC) which has been implemented in the country since 2007.

The company's activity was also outstanding during this period in India, where Isolux Corsán continues to be the most important European concessions manager for motorways in the country. During late 2013 works were completed on the NH8 Kishangarh-Ajmer-Beawar motorway with a length of 94 kilometres, currently managing four motorways under concession with a total of 710 kilometres.

In Mexico, Isolux Infrastructure manages two motorways under concession; Saltillo-Monterrey and Saltillo Norte and Perote-Banderilla and Libramiento Xalapa, with a length of 95 and 60 kilometres respectively for a period of 45 years. In 2013, the company issued bonds on the Mexican market to refinance the Saltillo-Monterrey motorway and the Saltillo bypass for a total of 4,200 million pesos.



## MOTORWAYS UNDER CONCESSION 2013

Motorway	Km	Country
Via Bahia (BR 116 - BR 324)	680	Brazil
A4 motorway, Madrid - Ocaña section	64	Spain
I-69 section 5 Bloomington- Martinsville (Preferred bidder)	34	United States
NH1 Panipat - Jalandhar motorway	291	India
NH2 Varanasi - Aurangabad motorway	192	India
NH6 Gujarat - Maharashtra Border - Surat - Hazira Port motorway	133	India
NH8 Kishangarh - Ajmer - Beawar motorway	94	India
Saltillo - Monterrey and Saltillo Norte motorway	95	Mexico
Perote - Banderilla motorway and Xalapa bypass	60	Mexico

1,643

km of motorways in Brazil, India,  
Mexico, Spain and the United States

BR 324 Motorway **Brazil**



Osyen solar farm **India**



**PHOTOVOLTAIC SOLAR ENERGY POWER PLANTS UNDER CONCESSION 2013**

<b>Project</b>	<b>Power Plants</b>	<b>Capacity (MW)</b>
Spain	34	161
Italy	8	7.2
Peru	2	44
India	2	17.3
Japan	1	35
Puerto Rico	1	30
United States	1	25
Mexico	1	6.5

370

**GWh** generated in 2013

# Consolidation on the North-American market

## The company incorporates 30 MW under construction in Puerto Rico

The T-Solar Group, a subsidiary of Isolux Infrastructure, is one of the main independent producers of photovoltaic solar energy and manages 326 MW in operation and development in Spain, Italy, Peru, India, Puerto Rico, USA, Mexico and Japan. These power plants generated 370 GWh in 2013.

The activities undertaken in 2013 enabled strengthening Isolux Corsán's position on an international level and consolidating its presence on the North-American market with the connection of its first photovoltaic solar power plant in the United States, a plant located in California with an annual output of 55 GWh. This 25 MW power plant was financed using a Tax Equity and senior debt model in a pioneering operation for a European company in the photovoltaic sector.

As the result of its expansion strategy in the USA, the T-Solar Group was selected by the Department of Defence

as one of the companies opting to be photovoltaic energy providers for their military bases as part of the MATOC programme (Multiple Award Task Order Contracts).

In Puerto Rico, the company is developing a 30 MW photovoltaic solar power plant in the municipality of San Germán located in the south-east of the island.

The photovoltaic solar power plants in Majes and Repartición built by the company in Peru, with installed power of 44 MW and a concession period of 20 years, completed their first year in operation satisfying the key performance and availability indicators beyond the estimate.

In India the company connected the Gujarat plant, its second photovoltaic power plant in the country, with 12.3 MWp which successfully concluded its first year in operation. In India, the company has an installed capacity of 17.3 MW currently in operation.



# Management of more than 23,000 car park spaces

**The Group, ranked third in the sector in Spain, manages 47 car parks in 23 cities**

The division responsible for operating the car parks manages a total of 23,568 spaces in Spain, distributed amongst 47 car parks and 11 Spanish regions, a figure which has significantly increased in recent years thanks to new contract awards and the construction of car parks.

In 2013, up to 21,941 spaces, 93% of which are managed by the Group, were in operation and 1,627, in the design phase. These figures indicate that Isolux Corsán has consolidated its position amongst the leading companies in Spain in the development and operation of public and private parking. The average duration of concessional contracts is 45.02 years, whilst the average outstanding service life of these is 37 years.

During the first quarter of the year, the company assumed responsibility for the operation of the Plaza Juan de Austria car park in Valladolid and, during the last quarter, the car parks in the Hospital Virgen de las Nieves in Granada and the City of Justice in Las Palmas, Gran Canaria were put into operation totalling almost 2,000 spaces. The facilities have the most state-of-the-art technological management system to offer users the highest security levels, both for drivers and their vehicles.

In the new car parks being built by the Group modern systems have been installed for access, LED lighting, registration plate reading systems, CCTV, parking guidance system and the possibility of remote control. The monitoring and control tasks for the car parks can be carried out from the four remote control centres located in Madrid, Toledo, Valladolid and Murcia. All of these have modern facilities which use the most sophisticated security system and have a minimum response time in the event of possible incidents.

#### CAR PARK SPACES UNDER CONCESSION 2013

Region	Car park	Number of spaces
Andalusia	9	4,903
Aragon	3	1,982
Canary Islands	3	1,892
Castilla la Mancha	11	2,860
Castilla y León	8	4,432
Ceuta	1	252
Valencia	1	374
Galicia	3	1,251
Madrid	1	350
Murcia	3	4,948
Basque Country	4	324
<b>Total</b>	<b>47</b>	<b>23,568</b>



Hospital Virgen de las Nieves car park in Granada Spain



# 11

## Spanish Regions

These are the ones where the company is active through its 47 car parks

Photo gallery of unique projects

# Amazon Project

## Transmission Lines

**Brazil**

**Amazon Transmission Lines**

**Regulatory Body:** Agencia Nacional de Energía (ANEEL)

**Investment:** €1,000 M

**Length:** 1,191 km

**Transmitted power:** 2,400 MW

In 2013, the area of concessions for transmission lines reached one of the most important milestones in its history with the start-up of operations in the Amazon Project.

Last year, the company completed the construction of 1,191 km of high voltage lines and six substations to connect the cities of Manaus and Macapá to Brazil's electric system.

With the start-up of this project, with an investment of €1,000 M, a solution was offered to the growing communication and data demand thanks to an extensive fibre optic network.

The Amazon constitutes one of the most complex projects undertaken in recent years by the Group, both because of its size and the difficulties presented by the terrain where it has been executed. Amongst the most important milestones is the execution of the first crossover of cables over the Amazon river with a width of two kilometres where the project is being executed, requiring the assembly of two transmission pylons with a height of 295 metres.





1,191

**km of high voltage transmission lines** which connect the cities of Manaus and Macapá to Brazil's electric system

295

**meters** high pylons used to execute the first crossover of cables over the Amazon river

**Photo gallery of unique projects**

# El Centro solar plant

Photovoltaic Solar Energy

**USA**

**El Centro Solar Power Plant, California**

**Contract awarded in:** 2012

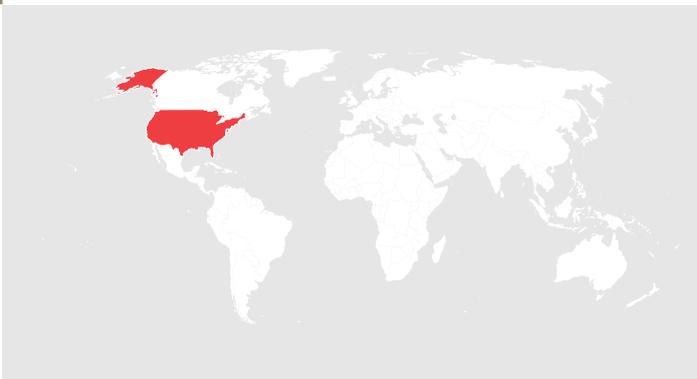
**Start-up:** 2013

**Investment:** \$75 M

**Area:** 53 hectares

**Generation capacity:** 55 GWh

In December, 2013, the T-Solar Group inaugurated its first solar power plant in the United States. The El Centro (California) power plant, located in the municipality of Imperial Valley, covers an area of 53 hectares and has an annual output of 55 GWh, sufficient energy to supply a population of approximately 12,000 inhabitants. The power plant, with a capacity of 25 MW, required an investment of more than 75 million dollars, financed by a sophisticated senior debt structure and funds provided by a *Tax Equity Investor* model. The Group concluded a PPA (Power Purchase Agreement) for 30 years with the IID (Imperial Irrigation District) company for the sale of the energy produced.





**12,000**

**inhabitants** can be supplied by this plant with an annual production of 55 GWh

**75**

**million dollars** of total investment financed according to the senior debt structure and the tax equity investor model

# 2

Río Turbio electric power plant **Argentina**



# Energy



## Expert in EPC projects

The energy area at Isolux Corsán develops projects in more than 20 countries on four continents. The activities performed by the company in 2013 strengthened this area, in particular the Renewable Energy Division. The Group maintained its specialisation in the execution of EPC projects and consolidated its presence in Latin America, Europe and the Far East with actions such as the electric generation plant in Khulna (Bangladesh) or the solar plant in Stradishall (United Kingdom).

# An increase in contracting abroad

## Isolux Corsán started up the open cycle power plant with an output of 180 MW in Khulna, Bangladesh

In 2013, Isolux Corsán's generation area increased the contracting level abroad and executed important projects in strategic countries in harmony with the international growth strategy pursued in recent years by the Group.

To this end, consortiums were set up with manufacturing and technological companies such as Alstom, General Electric or Siemens for the supply of equipment in outstanding projects.

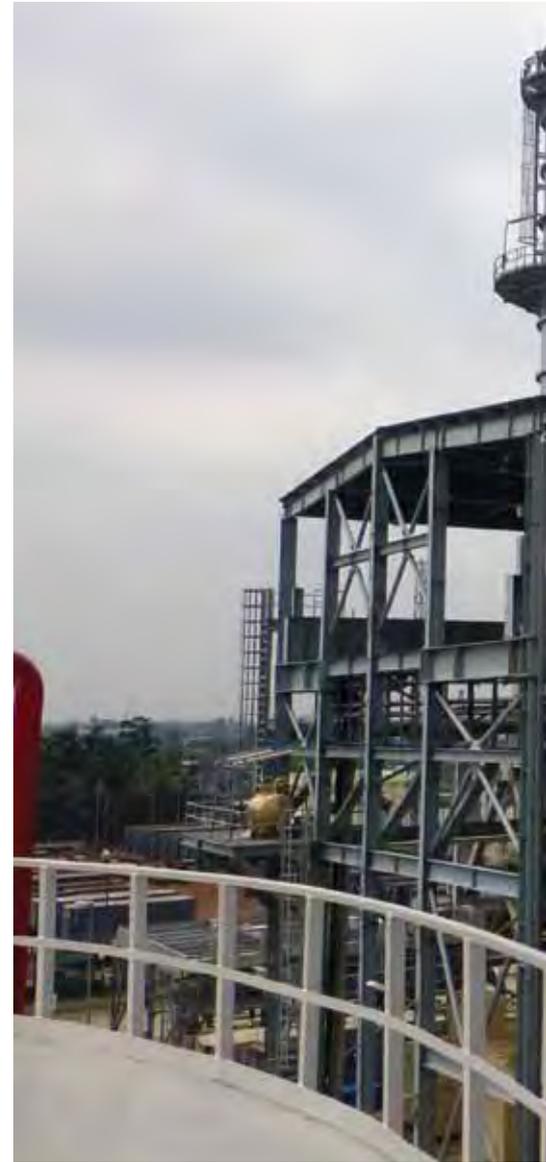
The company specialises in the construction and commissioning of electric generation plants with technology based on open cycle, combined cycles, co-generation, coal, wind, photovoltaic energy, biofuel and hydraulic energy.

The commissioning of the open cycle electric generation power plant with an output of 180 MW in the city of Khulna, Bangladesh, a project executed for the public electric company North-West Power Generation Company LTD, was the most important milestone in the Isolux Corsán generation area in 2013. The Khulna plant, built using Alstom technology, provides service for five million inhabitants and had a budget of 114 million euros. The execution of this project, the first undertaken by the Group in Bangladesh, was complex due to geographical and logistic difficulties in the area, however, the results were satisfactory and the established deadlines were met.

In this country the company is also carrying out construction works for the combined cycle power plant in Siddhirganj, with an output of 330 MW, located in one of the main industrial areas in Bangladesh and which has a budget of 220 million euros. This project is featured within the Energy Development Plan set up by the national Government to achieve the total electrification of its territory in 2020.

In Argentina, conversion work to the combined cycle is progressing in the simple cycle power plants of Ensenada Barragán, in the city of La Plata with a capacity of 2x280 MW, and Brigadier López, in Santa Fe, with 410 MW. Both projects are being executed for ENARSA (National Electric Company of Argentina). In this country the Group also has an EPC project underway for the Río Turbio coal-fired thermoelectric power plant in La Patagonia, with CFB (Circulating Fluidised Bed) technology which guarantees low emission levels and the natural balance of the area. This electric generation plant, the southern-most in the world, has a total investment of 445 million euros. The company has, with regard to design and construction, maintained its commitment of maximum environmental protection, just as it does in all the activities it undertakes.

In Mexico, the company was awarded the contract last year for the renovation



and modernisation project for units 1 and 2 of the Altamira Thermoelectric Power Plant (State of Tamaulipas). This undertaking could extend the service life of the steam units in the power plant for another 30 years.

In 2013, the Group also maintained its presence in Africa after the handover in 2012 of the Futila Thermal Power Plant (Angola). It is continuing with considerable activity in the south of the continent with important activities in Namibia.

Khulna electric generation power plant **Bangladesh**



#### MAIN GENERATION PROJECTS

Project	MW	Country
Conversion to combined cycle of the Ensenada Barragán power plant	830	Argentina
Simple cycle Ensenada Barragán	560	Argentina
Conversion to combined cycle of the Brigadier López power plant	410	Argentina
Construction of the Siddhirganj combined cycle power plant	330	Bangladesh
Revamping of Altamira	2x165	Mexico
Simple cycle Brigadier López	280	Argentina
Combined cycle Rosarito, Baja California	280	Mexico
Construction of the Río Turbio coal-fired thermoelectric power plant	240	Argentina
Construction of the open cycle power plant in Khulna	180	Bangladesh
Start-up of operation of the Fútila thermal power plant	90	Angola

330

#### MW of output

is generated by the Siddhirganj combined cycle power plant

# Extensive presence in Latin America and global projection

## Four new oil & gas projects in Bolivia, Argentina and Brazil

TECNA, a subsidiary of Isolux Corsán since 2006, is an engineering and construction company specialising in the development of EPC projects in the gas, oil and nuclear energy markets with presence in Latin America, Europe, Africa and the Middle East.

As one of the leading companies in the construction of turnkey projects TECNA has, for 40 years, executed integral projects where its tasks include the design, construction, commissioning, operation and maintenance of industrial plants. TECNA'S activity revolves around five core business areas: engineering and consultancy, EPC projects, automation and control, operation and maintenance and nuclear energy.

The company fulfilled the business plans drawn up for the last financial year, achieving the international diversification of its activity and has seen significant growth in the engineering of large projects in oil and gas according to the EPC scheme.

In 2013, TECNA continued to strengthen its presence in Africa and the Middle East with contracts for Pluspetrol in Angola and OGC in Oman. During the same period it increased its presence in Latin America thanks to the awarding of two important contracts from the French oil and gas company Total. In the first of these contracts, the Incahuasi Project in Bolivia, the company is developing the first gas processing line from the three production wells (Aquio X1001, ICS-X1 and ICS-2), with 243.7 MMSCFD of rated capacity. The contract includes detailed engineering, supply, installation, construction, connection, tests, pre-start-up and support during the commissioning of all the facilities for Phase I.

The second of these contracts is located in the Cañadón Alfa power plant in the province of Tierra del Fuego, Argentina where the fifth medium pressure turbo-charger is being installed. The project includes the tasks for engineering, procurement, construction, assembly, commissioning and support during the commissioning of a turbo-charger unit with an output of 11,500 kW and its corresponding auxiliary equipment and interconnections. It also

Castanha Field EPC 1 **Angola**



Cañadón Alfa Plant **Argentina**



includes the installation of a new motorised pump for the firefighting network with an approximate output of 400 kW and its corresponding auxiliary equipment and interconnections.

The growth of TECNA on the Latin American market is rounded off with another two projects for the client Petrobras, both located in the Río de Janeiro petrochemical complex (COMPERJ), in Brazil. In the first, the URE Project, the scope of supply includes the engineering, procurement and construction of all the gas processing units with amines, recovery and residual sulphur gas processing, oxidation of ammonia and auxiliary maintenance and electric energy services. TECNA was awarded this contract in association with leading companies on the Brazilian market.

As part of a second consortium TECNA will execute the UPGN-Rota 3 Project with the development of the basic and detailed engineering, supply of technology, procurement and the construction of two natural gas processing lines with 236.5 MMSCFD in each one.

# 15

## Oil&Gas projects

in nine countries

### OIL&GAS 2013

Project	Capacity	Country
Pluspetrol – Castanha Field EPC 1	10MMSCFD / 10MBOPD	Angola
Total – Carina Onshore	500 MMSCFD	Argentina
Total – M.P. Turbo-charger Cañadón Alfa Plant	11,500 kW	Argentina
Repsol – FCCB La Plata	4,500 MMBPD	Argentina
PAE - Cerro Dragón 1	105.9 MMSCFD	Argentina
Total- Icauhasi Project	243.7 MMSCFD	Bolivia
TUM – Urucú-Manaus Compressor	192 MMSCFD	Brazil
Petrobras – Caraguatatuba	212 MMSCFD	Brazil
Petrobras -Project UPGN–ROTA 3	473 MMSCFD	Brazil
Petrobras - URE	3600 T/day	Brazil
TGI – Compressor stations	780 MMSCFD	Colombia
Petroecuador – Machala	100 MMSCFD	Ecuador
Pemex – SRU Salamanca	80 T/day	Mexico
OGC – Salalah	282 MMSCFD	Oman
Pluspetrol – Falkland Islands EPC 21	520 MMSCFD	Peru

# Penetration of the sector in the United States

## Increase in presence in the United Kingdom with four new solar plants which can supply 23,000 homes

2013 bore testimony to the consolidation of activities in Isolux Corsán's renewable energy area thanks to a high EPC contracting level in the photovoltaic sector where the company accumulates total installed power of 518 MWp in solar power plants.

The Group has grown on the photovoltaic market in the United Kingdom with the start-up of the solar plant in Stradishall with 31.6 MWp and the awarding of new contracts for the construction of solar plants in Penare, Egmore and Parley, all for a total amount of 96 million euros. Through corporate capital, Banco Santander has placed its trust in the experience of Isolux Corsán in order to execute these projects.

The new solar plant in Stradishall, located in the county of Suffolk, covers a surface area of 59.5 hectares and is comprised of 127,000 modules able to produce 30,200 MWh per year, energy equivalent to the consumption of 8,000 homes.

The plants of Penare (24.2 MWp), Egmore (11.1 MWp) and Parley (21,2 MWp) will be able to supply more than 15,000 homes a year with energy and will jointly prevent the emission of 64,659 tonnes of CO<sub>2</sub> and 183,928 kg of nitrous oxide into the atmosphere.

During late 2013 the company inaugurated the photovoltaic solar energy power plant in California with which it reinforces its position in the renewable energy sector in the USA.

As part of the Renewable Energy Programme by the South-African Govern-

ment, the Group, in collaboration with the company Basil Read Matomo, signed a contract with SunEdison for the construction of a photovoltaic solar plant with an output of 60 MW in Boshof (South Africa). This operation, in addition to the expansion of the company in countries such as Algeria, positions Isolux Corsán as the leading company on the African continent for EPC projects.

### Wind energy

Isolux Corsán is also making important inroads in the wind energy sector with the execution in Argentina of the first of the four modules comprising the Loma Blanca project with an output of 200 MW, one of the most important wind energy projects in the whole of South Africa. The wind farm, with 17 wind turbines with an output of 3 MW, 44 kilometres of 132 KV lines and a new electric substation with 132 KV, started to generate its first megawatts in the middle of the year. This is enough energy to supply the annual consumption of almost 70,000 homes and to prevent the emission of approximately 128,000 tonnes of CO<sub>2</sub> per year. The investment for this first stage reached 126 million dollars and its financing was obtained by the issuing of bonds on the Argentine market which were ranked as "BBB" by Fitch throughout all the construction phases.

The wind farms built by the Group in Spain and Argentina amount to a total of 584 MW.



Loma Blanca **Argentina**



**BUILT PHOTOVOLTAIC  
SOLAR POWER PLANTS**

Country	MWp
Spain	196
Italy	108
United Kingdom	102
South Africa (Under construction)	66
Peru	44
USA	25

**BUILT WIND FARMS**

Country	MW
Spain	482
Mexico	54
Argentina (under construction 51 MW)	102

2013

**Loma Blanca I**, in Argentina, started to generate its first megawatts

# Strong presence on the American continent

## The Group is developing an important project in Puerto Bahía

Isolux Corsán's Industry area continues to be active in America, Europe, Africa and Asia. Its activities cover the entire project lifecycle from the project study, design and analysis up to the development of engineering, execution, installation, commissioning, support and maintenance.

Through the Industry area, the Group is executing the construction of biofuel production plants (biodiesel and bioethanol) and is developing energy generation projects using biomass, waste treatment, oil & gas, as well as unique projects with high technological and innovative expertise.

In 2013, the company continued with the construction works for the Puerto Bahía oil terminal in Cartagena de Indias (Colombia), facilities with an initial storage capacity of one million barrels in five tanks which will enable the export of crude oil and the import of derivatives. This EPC project, which is being implemented by a consortium formed by

Isolux Corsán and the Mexican company Tradeco, has a budget of 180 million dollars and includes the construction of the quay and the storage facility for crude oil and nafta. This quay, which is being built to the south of Cartagena bay has two mooring positions for vessels with capacities of 80,000 and 150,000 tonnes.

In Argentina in recent years the Group has been immersed in the execution of the works for the Louis Dreyfus biofuel plant. The company developed the design, engineering, construction, supply, testing and commissioning of this plant which has an annual production capacity of 300,000 tonnes per year. Moreover, in the industry area, it was commissioned by the Ministry for Industry and Energy of Argentina to develop one of the most strategic projects for the province of La Rioja, the complete execution of the gas pipeline with a length of 120 km and the intermediate compressor station.



### MAIN INDUSTRY PROJECTS

Project	Country
Puerto Bahía crude oil Storage Tanks	Colombia
Biodiesel Plant in Castellón (600,000 t/year)	Spain
Ferrol Biodiesel Plant (300,000 t/year)	Spain
Biomass Plant in Braga (10 MWe)	Portugal
Algarve Composting Plant	Portugal
Enersur Bioethanol Plant (40 MW)	Uruguay

Construction works for the Puerto Bahía quay **Colombia**



12

**large projects promoted**  
by this area in recent years

# Khulna Electric Power Plant

**Bangladesh**

## Khulna Electric Generation Plant

**Developer:** Bangladesh North-West Power Generation Company Ltd. (NWPGL)

**Contract award year:** 2011

**Start-up:** 2013

The Khulna electric generation plant, the third industrial city in Bangladesh, was inaugurated in October 2013 with a capacity to meet the electric consumption demand of a population of five million people. The public company Bangladesh North-West Power Generation Company Ltd. (NWPGL) commissioned Isolux Corsán with the construction of an open cycle plant with 180 MW, comprised of a central gas turbine with 150 MW (GT 13E2) and an Alstom generator, as well as plant connections to the electric grid and the existing gas and diesel networks. This was one of the great milestones for the company by being the first important contract award for electric generation in all of Asia.

The plant operation is achieved using a Distributed Control System (DCS) supplied by ABB which, in turn, communicates with the Turbine Control System and the different package plants. Isolux Corsán has a continuous emission monitoring system (CEMS) which guarantees compliance with environmental limits.

This plant, which was executed over two years with a budget of €114 M, is featured in the Bangladesh Energy Development Plan which was implemented by the Government of Hasina Wajed in order to achieve the total electrification of the country by 2020.

Energy Generation





**180**

**MW of output**

is generated by the new open cycle power plant in Bangladesh

**114**

**million euros**

is the project budget which has been executed over two years

## Photo gallery of unique projects

## Puerto Bahía oil terminal

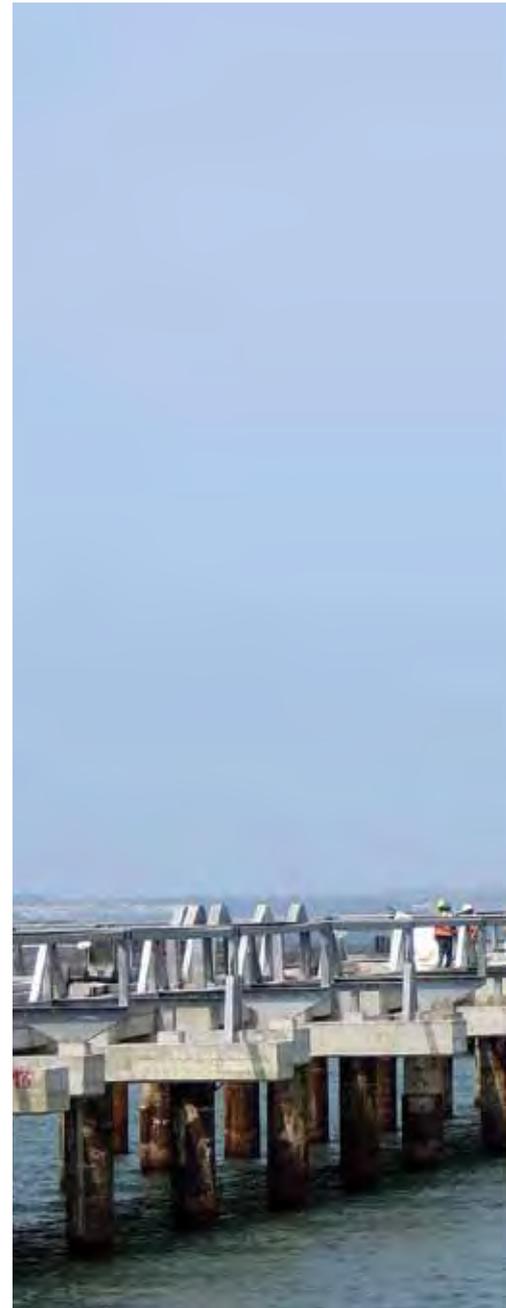
Industry

Colombia

**Puerto Bahía oil quay and terminal****Developer:** Pacific Infrastructure**Capacity:** 1,000,000 barrels**Contract award year:** 2012**Start-up:** 2014

Isolux Corsán is executing the construction works for the Puerto Bahía quay located to the south of Cartagena de Indias bay at the northern tip of the island of Barú, very close to the mouth of the Canal del Dique. This is an EPC and commissioning project awarded by Pacific Infrastructure, a subsidiary of the Canadian oil company Pacific Rubiales, to the consortium formed by Isolux Corsán, which has a participation of 45%, the Mexican company Tradeco and the American company Tampa Tanks.

The quay has an oil terminal for the export of crude oil and the import of derivatives with an initial storage capacity of one million barrels in five tanks. Moreover, it has two mooring positions, one for vessels with a capacity of 80,000 tonnes and another for those with a capacity of 150,000 tonnes. The construction is being executed over the period of 17 months for a total amount of more than 149 million euros which contributes to positioning the company as a specialist in EPC projects on a world level.





**1,000,000**

**barrels**  
is the initial storage capacity of the 5 tanks  
on the quay

**150,000**

**tonnes** of weight can be reached  
by the vessels in one of  
the mooring positions

# 3

WETT USA



# T&D and Facilities



## Consolidation of the EPC market

The Group is maintaining its outstanding position amongst the main companies in the world dedicated to the installation and maintenance of high voltage transmission and distribution lines. 2013 saw growth in company activities in Asia, America and Africa, the consolidation of the EPC market and penetration in new countries.



#### T&D SUBSTATIONS

Project	Voltage	Country
Lucala	220kV	Angola
Calingasta	500/132kV	Argentina
Porto Velho / Araraquara	600 kV CC	Brazil
Jurupari	500/230kV	Brazil
Xingú	500/230 kV	Brazil
Cottonwood	345kV	USA
Qatrania	400/132kV	Jordan
Rewa Road GIS	400/220kV	India
Mainpuri	765/400kV	India
Gurgaon/Sonepat	220/66kV	India
Buenavista	400kV	Mexico
Aragon / Pensador Mexicano	230/115 kV	Mexico
Las Glorias GIS	400/115kV	Mexico
Biremba/Shango/Gisenyi/Kibuye	220kV	Rwanda
Tishreen GIS	220/66kV	Syria
New Mbarara North	220/132kV	Uganda

#### T&D LINES

Farm	Voltage	Km	Country
Capanda - Lucala - Viana	400Kv	300Km	Angola
Interconnection Nea - Noa - East Section	500Kv	572Km	Argentina
Interconnection Comahue - Cuyo - North Section	500Kv	197Km	Argentina
LXTE - Linhas de Xingú	500Kv	508Km	Brazil
Serra Da Mesa 2 - Luziania - Samambaia - Paracatu - Emborcacao	500Kv	678Km	Brazil
Wind Energy Transmission Texas (WETT)	345Kv	605Km	USA
Mainpuri – Bara	765Kv	2X350km	India
Pune – Sholapur	765Kv	160Km	India
Narenda - Kudgi (Karnataka)	400Kv	185Km	India
Loyangalani -Suswa	400Kv	428Km	Kenya
La Ventosa - Juile	400Kv	135Km	Mexico
Valle de México (underground cable)	230/85Kv	26Km	Mexico
Roudatain area project	275Kv	172Km	Kuwait



# EPC contracts are on the rise in the T&D division

## Two strategic projects completed in 2013: The Amazon (Brazil) and WETT (USA)

Isolux Corsán continues to occupy an outstanding position amongst the largest constructors of installation and maintenance projects for transmission and distribution lines in the world. The T&D division completed an important mission in 2013 and concentrated its efforts on winning new EPC contracts and on the execution of projects in Brazil and the United States, thereby achieving a growth in its activities compared to the previous year.

The two most important projects executed by Isolux Corsán in 2013 were the Amazon and WETT. With regard to the main contracting milestones it is worth mentioning Kuwait and India.

The T&D area endeavoured to find new contracts in strategic countries, in particular in India, Brazil, Argentina, Mexico, the USA and Canada.

### Work is coming to an end on the Amazon Project

The execution works on the Amazon Project, one of the most complex projects undertaken by the company, were completed in 2013. The construction of 1,191 kilometres of high voltage lines, with 500 kV and 230 kV, in the very heart of the Amazon rainforest to connect the

cities of Manaus and Macapá to Brazil's interconnection system has been a huge challenge due to the logistic and geographical difficulties prevalent in the area. The assembly of 2,300 transmission pylons between the states of Pará and Macapá stands out and the recruitment of more than 4,000 workers to execute the project. The budget for this project exceeded 1,000 million euros.

### Increasing presence in Africa

In Kenya, the Group started the construction of the largest energy transmission and distribution line in the country with a length of 428 km and a voltage of 400 kV. This will enable evacuating the energy produced in the wind farm with an output of 300 MW which will be built in the vicinity of lake Turkana, in the north of the country. This EPC project, which includes engineering, supply, construction and commissioning, has a budget of 142 million euros and was signed with Ketraco, dependent on the Kenyan Energy Ministry.

The company is continuing its growth in Africa with the awarding of four new contracts for transmission and distribution in Uganda, Rwanda and Tanzania for a joint value of 86 million euros.

# Growth and consolidation, key factors of 2013

**Present in 23 countries, activities increase on strategic markets such as India and Brazil**

In 2013, the division for Facilities, Maintenance and Services at Isolux Corsán experienced growth in strategic countries such as Brazil and India and consolidated its activities on new markets. Present in 23 countries in America, Europe, Africa and Asia, its specialisation in the execution of electric, mechanical, signalling and communications, air-conditioning and sanitation facilities, amongst others, stands out.

Transport infrastructures

The main projects in this area in 2013 are linked to railway infrastructures. In Spain, the Group has continued with installation work for signalling and telecommunications systems, as well as auxiliary services for civil works and energy for the high speed railway line (AVE) for the section Albacete - Alicante for the Spanish Administrator of Railway Infrastructures (Adif). It has also electrified the Madrid-Valencia section of the high speed railway line with the installation and assembly of 8 substations, 8 final centres and 30 intermediate centres, thereby completing a total of 6,000 m<sup>2</sup> of building and industrial facilities. Furthermore, in a consortium with Alstom, it was awarded the contract for the installation and maintenance of the electrification system for the Pajares Bypass, the tunnels which will connect Leon and Asturias via the high speed railway line and the electrification works for the Medina del Campo-Salamanca-Fuentes de Oñoro line and the new multi-voltage traction

substations to supply workshops in Valladolid.

On an international level, it is worth highlighting the contracting of the electric and auxiliary supply systems for lines 15 and 17 of the Sao Paulo Metropolitan Transport Company. In India, the company is undertaking the implementation of the electro-mechanical facilities for the Delhi Underground, executing the installation of the electro-mechanical, ventilation and environmental control systems for tunnels and the catenary for the Mostaganem tramway in Algeria.

## Energy

In 2013, this area was given the contract award for an EPC contract for three mini power plants for hydroelectric exploitation in the Xallas river, A Coruña, which will increase the energy originating from hydraulic sources by 47 Gwh hour per year. In Spain there are also 27 substations and the overhead-underground evacuation line between the distribution centre and the El Cortado SET for Enel Green Power España, as well as the new integral construction contract for the 400 kV substations in Muniesa for REE.

In Brazil the execution of CEEE electric transformer substations stands out.

# €190

**M budget** for L15 and L17 of the Sao Paulo Underground which confirms the consolidation of the company in Brazil



Installation and maintenance of different services on the Albacete - Alicante high speed railway line **Spain**



#### OUTSTANDING PROJECTS 2013

<b>Transport infrastructures</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Telecommunications, signalling, security and maintenance of the high speed railway line Albacete - Alicante	Spain	2012-2013	€280 M
Electrification of the line Medina del Campo-Salamanca-Fuentes de Oñoro	Spain	2013	€8 M
Electric and auxiliary supply system for the lines 15 and 17 of the Sao Paulo Underground	Brazil	2013	€190 M
Ventilation, PCI and environmental facilities Delhi Underground	India	2013	€28 M
Catenary for the Mostaganem tramway for the Enterprise Metro D'Alger	Algeria	2013	€9 M
<b>Energy</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Overhead-underground evacuation line between the distribution centre and the El Cortado SET for Enel Green Power España	Spain	2013	€1M
Integral construction contract for the 400 Kv substations in Muniesa for REE	Spain	2013	€4 M
In Brazil the execution of CEEE electric transformer substations stands out	Brazil	2013	€28 M
Electro-mechanical assembly substations Cristóbal Colon in Huelva	Spain	2013	€2 M

20,000

**m<sup>2</sup> of surface area** in the data processing centre in Covilhá, Portugal

### Unique facilities

In the Portuguese town of Covilhá Isolux Corsán executed one of the most pioneering and efficient data processing centres in the world; a complex with 20,000 m<sup>2</sup> distributed over six floors which enable accommodating 50,000 servers with 200 million GB.

The centre, completed in the record time of seven months, has 12 transformer centres each with 1,600 KVA and has UPSs which guarantee the power supply thanks to its more than 7,500 installed batteries.

In Spain the company executed the electro-mechanical facilities for the new Courts of Palencia, the building for the Faculty of Medicine for the Technological Campus of Health Sciences in Granada and the headquarters for the Special Delegation of the A.E.A.T (Spanish Tax Agency) of Castilla y León in Valladolid.

In France, facilities are being executed for office buildings in the European Nuclear Research Centre (CERN), in Prévessin-Moëns.

### Telecommunications

Since 2013, the Group has been executing a turnkey project for laying fibre optic of more than 2,000 km for the Argentine Federal Network between the sections Nea Sur and Entre Ríos for the amount of €40 M.

In Spain, electro-mechanical facilities were executed for 19 data processing centres (CPD) for Vodafone for the amount of more than €50 M. The facilities complex has an output of more than 31,000 KVA.

### Security

Through its subsidiary Watsegur, the company continued installation work for active security systems such as in Ceuta prison, as



well as the access control and payment systems for public car parks. Moreover, the Group developed security systems for communications and fire protection in the Mogán tunnels, the high speed railway line tunnels (Albacete - Alicante) and the Bielsa tunnel.

In Peru, Isolux Corsán was responsible for the design and deployment of integral security systems for the solar farms in Repartición and Majes, in the region of Arequipa. In the USA, security systems were installed in the photovoltaic solar plant in Sol Orchard and in England those in Stradishall, Ellough Road, Weston Longville, Egmore, Parley and Penare.

In Colombia, firefighting security systems are being executed in the hydrocarbon and bulk liquids storage terminal in Puerto Bahía.

### Systems

In Algeria, the company developed the control system for the water distribution network originating from the seawater desalination treatment plant in Mostaganem, which includes the control and remote management of 29 remote stations, amongst which there are pumping stations, water tanks, connections to the desalination plant and other distribution and supply networks and a control centre. The project includes the deployment and commissioning of the fibre optic and hydraulic instrumentation and security network, as well as a complete monitoring system for the stations from the control centre. In Colombia, the Group is executing the control systems in the hydrocarbon and bulk liquids storage terminal in Puerto Bahía.

### Maintenance

In 2013, maintenance was carried out for the El Centro solar power plant in California (USA), a plant which gener-



ates enough energy to supply a population of approximately 12,000 inhabitants, as well as more than 25 solar farms in Italy and Spain. Moreover, the company is performing the maintenance for more than 30 buildings of interest which form part of National Heritage.

Isolux Corsán also performed the main-

tenance and conservation of air-conditioning equipment and facilities (cooling/heating) for various centres for the Complutense University of Madrid, located in the campus of Moncloa and Somosaguas and the integral maintenance of airport facilities for Santiago de Compostela Airport.

#### OUTSTANDING PROJECTS 2013

<b>Unique facilities</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Electro-mechanical facilities, DPC for Portugal Telecom in Covilhá	Portugal	2013	€30 M
Electro-mechanical facilities for the mini power plants of Ferroatlántica in Xallas	France	2013	€27 M
Electro-mechanical facilities Tryp Hotels Los Gallos	Spain	2013	€2 M
Electro-mechanical facilities Faculty of Medicine of the Technological Health Campus of Granada	Spain	2013	€4 M
Electro-mechanical facilities for the headquarters of the Special Delegation of A.E.A.T (Spanish Tax Agency) of Castilla y León in Valladolid	Spain	2013	€2 M
<b>Telecommunications</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Turnkey project for laying fibre optic (>2,000 km) for the Argentine Federal Network, sections Nea Sur and Entre Rios	Argentina	2012-2013	€40 M
Electro-mechanical facilities for 19 Vodafone DPCs	Spain	2013	€50 M
Electro-mechanical facilities for the CERN building	France	2013	€2 M
<b>Security</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Control and security system in the Sol Orchard photovoltaic solar plant in California	United States	2013	€1 M
Active security facilities and special facilities for the new Ceuta Prison	Spain	2012 - 2013	10 M€
Periphery security system in solar farms and connection to the CRA	Spain, England, Italy and Peru	2008-2013	€8.6 M
Supply and installation of the management and reading system for registration plates in car parks	Spain	2008-2013	€7 M
Control system for the new CG-1 motorway, section Pto Rico-Mogán, Gran Canaria	Spain	2008-2013	€3.5 M
Security system high speed railway line Albacete - Alicante	Spain	2012-2013	€5 M
<b>Control and systems</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Distributed control system, CO <sub>2</sub> intake plant City of Energy	Spain	2012-2013	€4 M
Control system Rovigo photovoltaic solar plant	Italy		€1 M
Control system for the water distribution network originating from the seawater desalination plant in Mostaganem	Algeria	2012-2013	€1 M
Control system Majes and Repartición photovoltaic solar plants	Peru	2013	€1 M
Control system, Sol Orchard photovoltaic solar plant in California	United States	2013	€1 M
<b>Maintenance</b>	<b>Country</b>	<b>Year</b>	<b>Amount</b>
Maintenance of the security systems for National Heritage buildings	Spain	2012-2013	€1 M
Maintenance of photovoltaic solar farms	Spain, Italy	2012-2013	€1 M
Maintenance of the El Centro solar farm, California	United States	2013	€1 M

## Photo gallery of unique projects

# Data Center Covilhá

Facilities

Portugal

### Electro-mechanical facilities DPC of Portugal Telecom in Covilhá

**Developer:** Portugal Telecom

**Investment:** €55M

**Total generated output:** 18,000 KVA

**Surface area:** More than 20,000 m<sup>2</sup>

With an investment of more than 55 million euros, the data processing centre for Portugal Telecom in Covilhá constitutes one of the largest data processing centres in the world. The Data Center which has created more than 500 jobs and which has six plants with a total surface area of more than 20,000 m<sup>2</sup>, accommodates 50,000 servers with 200 million GB. Moreover, it has 12 transformer centres each with 1,600 KVA and 12 gen-sets which generate an output of 18,000 KVA, which is fundamental for guaranteeing the electric power supply.

The rooftop floor has the cooling production centres with a total of eight cooling units which generate a cooling output of more than 10,000 Kw.

The 26 hydraulic pump units at its disposal enable 75,000 litres of water to circulate around the facilities.

In the IT rooms a total of 36 state-of-the-art air processing units were installed based on T2TB2 technology.

This Data Center has the most important international qualifications, the Platinum LEED and the Tier III.





**50,000**

**servers**

which provide a total capacity of more than 200 million GB

**10,000**

**Kw of cooling**

output is generated in the eight cooling units in the centre

# 4

BR 116 Motorway **Brazil**



# Infrastructure



## Increasing activity in strategic countries

Activity in the infrastructures area of Isolux Corsán was consolidated abroad, where the Group continued to expand and committed itself to the penetration of new markets in Europe and Africa. In 2013 it developed an important decentralisation policy for its activities and concentrated its work on strategic countries such as Brazil, India, Mexico and Colombia, whilst its activity in EPC projects was particularly outstanding.

# Change from the concession model to EPC

## The company's commitment to the development of the foreign market as part of a continuous growth strategy

In 2013, Isolux Corsán continued with its internationalisation strategy, adopted more than five years ago, which has enabled it to finance its operations in countries where it was already active, as well as to penetrate other new markets. During this period, a change in trend was noticed by a gradual transformation from a model based on construction on the international market for infrastructure concessions in the Group's companies, to a new situation in which the majority of contracts are EPC, both for public and private clients. In spite of tenders for public works closing the year in Spain with the first increase since 2005 to reach 9,173 million euros, approximately 1,500 million euros more than in 2012, its figures continue stable at historic minimum volumes, almost a fifth less than the

record tender figure of 46,701 million registered in 2006.

The evolution of the business portfolio abroad reliably reflects the correct decision made for the diversification and internationalisation of operations in the Infrastructures area which, this year, reached a total of 3,607 million euros, 64% of which pertain to the foreign market.

The Group grew in North Africa and Europe and maintained intense activity in strategic countries such as Brazil, Mexico, Colombia and India. Its operations in Algeria stood out with two important civil works projects: the construction of the first Mostaganem tramway line with an investment of 250 million euros and the intermodal bus station for the capital, Algiers, in Brazil the closure of the Sao Paulo ring road, in addition to various activities in Africa.

# 64%

## of the market

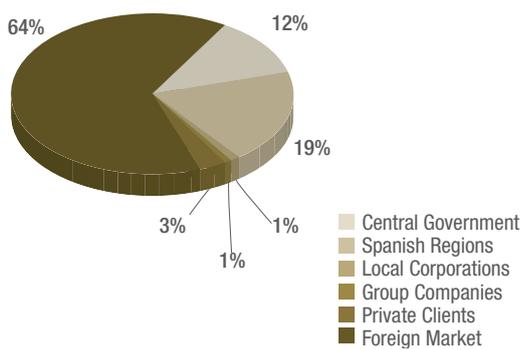
corresponds to international projects



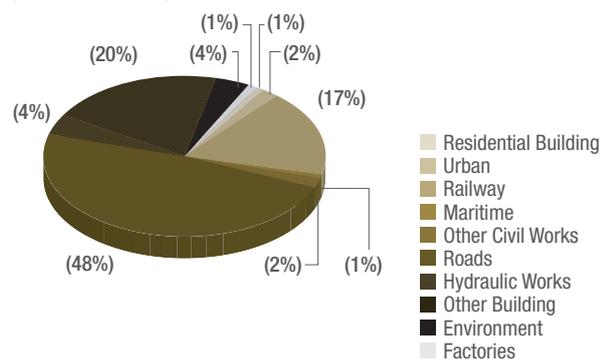
Ceuta prison Spain



PORTFOLIO PER CLIENT TYPE  
(Thousands of euros)



PORTFOLIO PER PROJECT TYPE  
(Thousands of euros)



# Leader in the construction of infrastructures

## Increasing presence on the markets with most potential

The Group maintains its world leadership position in the development of large road, rail, maritime and hydraulic infrastructures. This specialisation in civil works is reflected by the results obtained during 2013, when this sector represented 79% of the total business portfolio for the area with 2,852.5 million euros.

When classifying by project type, the first position is, for yet another year, occupied by road construction which, in 2013, represented 48% of the total activity in this division. The execution of the Mario Covas ring road in the Brazilian city of Sao Paulo for 259 million euros and the contract award for four lots of the BR-381 road, for the amount of 377 million euros, were the most outstanding milestones in 2013 in road infrastructures.

In Africa, Isolux Corsán continued strengthening its activity and was the awardee of important projects. An outstanding contract award, as part of a

consortium with Alstom, was the first line of the Mostaganem tramway, Algeria for 250 million euros, a railway infrastructure with a length of 14 kilometres and 24 stations which will provide service for 150,000 people in this town, whilst this is the second integral tramway line that the company is building in the country. After 51 months of works, last year the Group inaugurated the Oran tramway in Algeria which had a budget of 501 million euros. For the execution of this line, which could transport up to 90,000 passengers daily, a two-way line with a length of 18.7 kilometres with 32 stations, 11 electric substations, two viaducts and a pedestrian underpass was built.

With regard to 2014, the infrastructure area of Isolux Corsán intends to increase its presence in the Middle East thanks to the development of new projects in Oman, a strategic region with one of the greatest economic growths in the world.



# 150,000

**people** will be provided with service by the Mostaganem tramway which will extend over 14 kilometres

Bridge over the Biobío river Chile



Mostaganem tramway Algeria



Redevelopment of T11 Accesses. Reus - Tarragona airport section Spain



#### CIVIL WORKS ROAD INFRASTRUCTURES

Project	Country
Ashtarak - Talin road (90 km)	Armenia
Dual carriageway La Paz - Oruro Section II A and B (77 km)	Bolivia
Northern stretch Mario Covas ring road (6.42 km)	Brazil
BR 116, BR 324, BA 526 and BA 528 (680.6 Km)	Brazil
BR 381 (Lots 1, 2, 3.1 and 6 – 200 Km)	Brazil
Bridge over the Biobío river (1,600 m)	Chile
GC-1 motorway, section: P. Rico - Mogán I G. Canaria (6.3 km)	Spain
NH1, NH2, NH6 and NH8 (710 Km)	India
Salttillo - Monterrey motorway (95 Km)	Mexico
Campeche - Mérida road (15 km)	Mexico
Chilina bridge with successive cantilevers (562 m)	Peru
Ziguinchor - Tannaf - Kolda – Velingara road (194 km)	Senegal
Reconstruction of the A373 Tashkent – Andiján (58 km)	Uzbekistan

#### CIVIL WORKS RAILWAY INFRASTRUCTURES

Project	Country
Oran tramway	Algeria
Mostaganem tramway	Algeria
Line 4 Sao Paulo Underground Lot 1 Phase 2 (new stations)	Brazil
Line 4 Sao Paulo Underground Lot 2 Phase 2 (interconnection buses)	Brazil
Line 3 of the Santiago Underground (3.7 km of NATM tunnel)	Chile
"Cuatro Ríos de Cuenca" tramway	Ecuador
High speed railway line Atlantic Axis Maceiras - Redondela	Spain
Basque high speed line, section: Tolosa - Hernialde / Amorebieta	Spain
High speed railway line section: La Trinidad - Montcada junction	Spain
Galicia high speed railway line, section: Corno tunnel right-hand track	Spain
High speed railway line, section: La Sagrera - La Trinidad junction	Spain

#### CIVIL WORKS HYDRAULIC INFRASTRUCTURES

Project	Country
Conduits from the Mactaa desalination plant	Algeria
Raw water aqueduct Puerto Lavalle - Juan José Castelli	Argentina
Santolea dam I Teruel	Spain
"El Purgatorio" dam	Mexico
Molloco Hydroelectric Power Plant	Peru

# Facing up to new challenges

**The company's experience allows it to take on any type of building projects**

The operations in the building area, the division specialising in the construction of residential and non-residential buildings, represent 21% of Isolux Corsán's business portfolio. The most outstanding projects in which the company participated in 2013 were carried out in Algeria and Spain, even although its activities cover other countries in Europe and Latin America.

In Algeria, the Group started the construction of the new Bir Mourad Rais intermodal station, an infrastructure devised to reduce the capital's traffic and improve the mobility of six million Algerians. It will have a surface

area of 66,000 m<sup>2</sup> and will comprise taxi, underground, bus and tramway services in the one building only. The station, with a budget of 38 million euros, will be comprised of three areas intended for different activities. The avant-garde design of the building, by Tecnia and the architect Maximino Enrique Díaz Suárez, takes its inspiration from infrastructures such as Hong Kong Airport or the Bridge Pavilion of the Expo Zaragoza 2008. Construction work is continuing in this country at a steady pace for the new headquarters of the Ministry for Religious Affairs.

# 66,000

**m<sup>2</sup> of surface area**

in the new Bir Mourad Rais intermodal station in Algeria

The works for the Hospital de Pitrufquén in Chile, awarded in 2012 for 27 million euros, continued to make good progress.

In Spain, the company is continuing with the construction of the headquarters of the European Union's Office for Harmonization in the Internal Market (OHIM) with a budget of €41.4 M.

In Spain, works for the construction and renovation of the Historic Provincial Archive of Ourense are ongoing, an action which encompasses the remodeling of two buildings: the Former Convent of San Francisco, which is home to one of the most representative clois-

Cultural Centre Manzana de Revellín, Ceuta **Spain**



### BUILDING MAIN PROJECTS

Project	Country
New headquarters for the Ministry for Religious Affairs	Algeria
Bir Mourad Rais intermodal station	Algeria
Standardisation of the Hospital de Pitrufquén	Chile
University academic building and offices Santiago	Chile
Hospital for Paraplegics in Toledo	Spain
New OHIM headquarters	Spain
Fac. of Medicine Campus of Health I Granada	Spain
Ceuta Prison	Spain

ters of Romanesque/Gothic style and the building intended for the Archive Facilities. The budget for this emblematic project exceeds 13 million euros.

In 2013, the new Palace of Justice of Plasencia was inaugurated. This is a building with an area of 10,900 m<sup>2</sup> distributed over four floors which has implemented an efficient management system for natural resources, in line with a sustainability strategy.

Last year, the company was awarded the contract for the amount of 20 million euros for the renovation project of the former tobacco factory in A Coruña, an emblematic building for the city, also

declared an object of cultural interest. Once the works have been completed the building will house the headquarters of the Provincial Courts, the Court for Minors, the Prison Supervision Court and the Public Prosecutor's Office, as well as local services for all users in an area of more than 15,000 m<sup>2</sup>, distributed over four floors.

The Building area was also awarded two new projects in the region of Madrid for the development of the Support Centres for the Physically Disabled of Leganés and the execution of the structure of various buildings in the Iberdrola Campus of San Agustín de Guadalix.



# Efficient solutions for quality water

## More than 30 years of being committed to the Environment through water treatment and pumping systems

The Environment area at Isolux Corsán has sound experience, going back more than three decades, in the design, construction and operation of water treatment plants and pumping systems.

In 2013, the company consolidated its presence on international markets by being awarded new contracts in countries such as Algeria, Uruguay, Brazil and Argentina.

In addition to the endeavour undertaken in international expansion, the Environment area continued with its commitment to the domestic market as is clearly reflected by the contract awards for treatment plants in Leon, Sevilla la Nueva (Madrid) or Abanilla (Murcia).

During 2013, the Campo Limpo and Varzea wastewater treatment plant in

Sao Paulo, Brazil was started up. The first phase of the WWTP in Vigo was started and the start-up process got underway for the Moncofa desalination plant which will go into operation in 2014.

During this period, in addition to completing the works for 7 water treatment plants in Cáceres, the Group continued with work on the final phase of the El Bayadh (Algeria) wastewater treatment plant which has a capacity of 20,000 m<sup>3</sup>/day and will provide service for 123,000 inhabitants, and of the Torres de la Alameda (Madrid) treatment plant with a capacity of 26,000 m<sup>3</sup>/day.

Work is planned during early 2014 on the Nerja (Malaga) WWTP once the project drafting process has been completed.



Torres de Alameda SWDP, Madrid **Spain**



### ENVIRONMENT OUTSTANDING PROJECTS 2013

Project	Budget (€M)	Country
Expansion and modernisation of the Lagares Vigo WWTP	115.90	Spain
Campo Limpo, Sao Paulo wastewater treatment system	65.00	Brazil
San Felipe WWTP, San Miguel de Tucumán	36.30	Argentina
El Bayadh STEP	16.50	Algeria
Torres de la Alameda WWTP, Madrid	12.80	Spain

### ENVIRONMENT AWARDED PROJECTS 2013

Project	Budget (€M)	Country
Expansion of the Sevilla La Nueva WWTP	3.87	Spain
Expansion of the Leon WWTP	4.12	Spain
Mohammadia STEP	6.26	Algeria
Raw water and drinking water intake and improvement in San Salvador de Jujuy	11.84	Argentina
Works on the sanitation system of Sao Bernardo do Campo	18.48	Brazil
Drainage infrastructure improvement works in Quitacalzones and Arroyo Seco	11.37	Uruguay

Lagares river WWTP, in Vigo **Spain**



Moncofa SWDP, Castellón **Spain**



123,000

**people** will benefit from the wastewater treatment service of El Bayadh, in Algeria

## Photo gallery of unique projects

# Oran tramway

Civil Works

Algeria

### Oran tramway

**Developer:** Enterprise Metro D'Argel - Transport Ministry

**Budget:** €355 M

**Transport capacity:** 90,000 passengers per day

**Length:** 18.7 km double track

In May, and following 51 months of works, Isolux Corsán inaugurated one of its most emblematic projects in the Middle East, the Oran Tramway, a railway infrastructure executed as part of a consortium with the French company Alstom. With the capacity to transport 90,000 passengers per day, it will allow up to 88 million people to use its facilities every year.

The Oran Tramway, with a budget of 355 million euros, has a two-way line with a length of 18.7 kilometres with 32 stations, 11 electric substations, two viaducts and a pedestrian underpass.

At one end, in "Sidi Maarouf", depots were constructed covering 70,000 m<sup>2</sup> provided with workshop, washing tunnel, service station, System Control Centre (PCC) and an administrative building and, at the other end, in "Es Senia", an outdoor train parking base was executed covering 11,750 m<sup>2</sup> with an administrative control building.

The inauguration of this infrastructure was attended by the Minister for Transport in Algeria, Amar Tou, the Wali of Oran, Abdelmalek Boudiaf and representatives from Isolux Corsán and Alstom.





**90,000**

**passengers**  
can be transported  
daily by the tramway

**18.7**

**kilometres**  
covering 32 stations  
and 11 electric substations

## Photo gallery of unique projects

# Coordination centre for maritime surveillance

Building

Spain

### Coordination centre for the surveillance of coasts and borders

**Budget:** €14 M

**Technological partner:** Amper Sistemas

**Start of works:** October 2011

In October 2013 Isolux Corsán inaugurated the facilities for the Coordination Centre for the Surveillance of Coasts and Borders, a project under the operational management of the Spanish Civil Guard.

The building, in the centre of Madrid, was designed to house the Operations Room for the Coordination Centre for Maritime Surveillance (CECORVIGMAR) and is comprised of three floors, two underground and one above ground, fitted with tough security measures.

The Centre has two basements covering 1,864 m<sup>2</sup> for administrative use, where the operators room and the conference room are worth highlighting. In addition to the actual workstations required for the staff, the building has facilities for meetings and rest areas.

This is a building with avant-garde technology which reduces its energy dependence thanks to using thermal solar energy, photovoltaic solar energy and LED lighting.

The Centre, on which building was started in October 2011, has the most modern vessel detection and control systems.





1,864

m<sup>2</sup> for  
administrative use

## Photo gallery of unique projects

# Campo Limpo WWTP

## The Environment

**Brazil**

### Campo Limpo, Sao Paulo wastewater treatment plant

**Developer:** SABESP (State of São Paulo)

**Contract amount:** R\$216,737,280

**Population supplied:** 250,000 inhab.

**Treatment capacity:** 48,000 m<sup>3</sup> /day

The Campo Limpo wastewater treatment plant, located in the state of Sao Paulo (Brazil), has a treatment capacity of 560 l/sec., which can be increased to 830 l/sec. and is designed to satisfy the requirements of a population of approx. 250,000 inhabitants.

The treatment process used in this WWTP, which will provide service for the cities of Campo Limpo and Varzea in Sao Paulo, combines two upflow anaerobic biological reactors with sludge blanket (UASB) and subsequent removal of impurities with a sequential activated sludge system in three phases (RFA). The methane gas generated in the UASBs will be removed using combustion.

The project is rounded off with the execution of two wastewater piping systems and a network of collectors with a length of 25 km.





**48,000**

**m<sup>3</sup> de treated**  
water daily

**250,000**

**inhabitants**  
will be supplied by the water  
treatment plant





CSR

Corporate Social  
Responsibility  
Report

# A firm commitment

## The company proves its economic, social and environmental maturity

The complexity of the global situation in which Isolux Corsán operates produces very specific challenges for the Group's Social Corporate Responsibility. In 2013 the ma-

turity which has been achieved thus far was noticed in three aspects (economic, social and environmental) thereby defining the vision and mission of our corporate commitment.

During the last financial year, the endeavour made to coordinate the application of the international standards on which Isolux Corsán's SCR is based was ratified with the specifications inherent in the countries in which we operate. As has occurred for several years, the difficulties associated with the diver-

sity of standards managed by a global Group have been overcome thanks to the rigour of the auditing systems used and the firm commitment of all those who comprise Isolux Corsán's human capital.

This human factor is essential for understanding the continuous improvement experienced by the Group in SCR issues, and which translates into an endeavour of real immersion in all the locations in the world in which we undertake our professional activity.



# A Global Compact

## The safeguarding of Fundamental Rights

Isolux Corsán implements its corporate culture by taking each and every one of the people in the company as a fundamental base. In undertaking its activity, both on the national and international market, the Group shows exquisite sensitivity to the peculiarities of the local areas in which it operates, paying particular attention to safeguarding fundamental rights as stipulated in the United Nations Global Compact.

Along these lines, in 2013, Isolux Corsán ratified its commitment to the Global Compact and to the ten principles based on defending human rights, observance of the established labour standards, environmental protection and the fight against corruption.

The UN Global Compact promoted by Kofi Annan in 2001 is the most important voluntary initiative for social corporate

responsibility in the world. Its network is present in more than 130 countries and has 10,000 signatory entities.

The ten Global Compact principles are:

- Businesses should support and respect the protection of internationally proclaimed human rights within their area of influence.
- Businesses must ensure that they are not complicit in human rights abuses.
- Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- Businesses should support the elimination of all forms of forced and compulsory labour.
- Businesses should support the effective abolition of child labour.
- Businesses should support the

elimination of discrimination in respect of employment and occupation.

- Businesses should support a preventive approach to environmental challenges.
- Businesses should undertake initiatives to promote greater environmental responsibility.
- Businesses should encourage the development and diffusion of environmentally-friendly technologies.
- Businesses should work against corruption in all its forms, including extortion and bribery.

The Compact signed by United Nations and Isolux Corsán is implemented by applying the commitment to, respect for and the dissemination of these ten principles on a daily basis and, above all, effective compliance therewith.

### STAKEHOLDERS

Description	Key points
<b>Employees</b> Human capital is one of the most relevant resources in the company	Retaining talent Professional development Reconciliation Social benefits
<b>Clients</b> The company has adapted and adjusted to the specific requirements of each group and has devised tailor-made management for them	Satisfaction Quality Innovation
<b>Shareholders</b> The company expresses its firm commitment and willingness to create long-term value for them	Transparency Creation of long-term value
<b>Suppliers and Subcontractors</b> They represent a key element for the development of the business	Innovation Transparency Professionalism
<b>Society</b> The company constantly interacts with society and considers that it is vital to manage its priorities and expectations in order to contribute to the development of the areas in which it operates	Respect for Human Rights Ethical attitude Sustainable development Transparency
<b>Regulatory Bodies</b> A strategic element within the Group	Close monitoring of regulatory standards
<b>Business Partners</b> A strategic element within the Group	Relationships based on trust Long-term relationships

# 1

## Human Resources

### Stability within complexity

#### In 2013 the company confirmed its international profile

Given the complexity of the current situation, the Human Resources strategy during 2013 was to contribute to business stability. In this sense, our processes have been directed at going into greater depth regarding the fostering of talent and firmly establishing the company's internationalisation.

Last year was the year in which Isolux Corsán confirmed its international profile. Over recent years the company has gradually penetrated several markets, thereby ensuring that more than 80% of its business originates from other countries and that more than half of the employees work abroad. In 2013 a relevant milestone came to the fore, given that for the first time a country other than Spain recruited more employees. This

fact shows the company's entrenched international facet and the success of our strategy in other countries.

Isolux Corsán is steadfastly moving throughout the world thanks to a clear efficiency strategy in its investments. Human Resources is not immune to this philosophy and its processes have the objective of maximising the investment results. This way of acting is precisely what maintains our stability at these times. According to this premise, during 2013 we continued with different success processes which started in previous years, such as the performance evaluation in which employees are assessed according to the corporate skills associated with their position or the internal selection programme.





## Improvement in development processes for Human Resources

Our ambition to improve forces us to constantly introduce new functions and applications in our processes.

In 2013 we assessed more than 200 employees in Brazil where, moreover, we used our centralised human resources system to analyse training requirements. The system, with improvements designed in line with our requirements, allows us to obtain training recommendations for each employee assessed and to analyse them collectively as well. This innovation helps to identify training requirements which are brought to life in our Training Plans.

### **Integrated evaluation**

Moreover, we have started a new evaluation process with 600 employees in India where, for the first time, we are including the evaluation of corporate

competences with the setting of specific and individual performance objectives. This process entails a significant change given that it will allow employees to objectively measure their input and identify correlations between skills and results in the future.

The performance evaluation system gradually defined by Isolux Corsán is becoming the backbone in the development of our employees' potential. Proof of this is the personalised creation of a report for team managers which allows them to analyse the employee's situation, their strengths and development areas based on a comparison with the rest of the organisation. This report, referred to as Manager Evaluation Report, is a support tool for senior management and the development of teams.



## An HR portal to drive the recruitment of talent

Our global activity requires global solutions. In 2013 the company created a new portal specifically for Human Resources aimed at driving the recruitment of talent. This portal offers useful information on our culture, values and commitments, as well as on the human resources policies which have gradually been adopted.

For this launch, particular care has been given to design, providing an innovative image in accordance with our evolution and which conveys the main features of our current situation:

- Global spirit
- Dynamism
- Teamwork

The web is structured into four sections:

- **Discover Isolux Corsán:** basic information on the Group from the perspective of individuals
- **Choose Isolux Corsán:** facilitates access to submit an application according to the professional profile
- **Isolux Corsán and you:** shows the main advantages of forming part of the company
- **About us:** this describes what the people are like who form part of Isolux Corsán

The actual homepage of the People section clearly reflects the change we wish to show. With a highly visual format, and in a very simple way, our international personality can be understood, the variety of profiles discovered and rapid access to making contact with us through social networking sites or the application form.

This is a webpage which aims to be the first point of contact with applicants on an international level given that it is available in four languages. Thanks to this, an up-to-date and attractive interface conveys the company's qualities.

## Strengthening internal talent and international vocation

Isolux Corsán employees have the opportunity to put their knowledge into practice and to develop their skills thanks to the enormous variety of projects they undertake. Our company, one of the world leaders in the construction of infrastructures, the installation and maintenance of energy transmission and distribution lines, the construction of industrial and energy plants and concessions, allows its workers to acquire highly varied experience throughout their professional development.

Committed to internal talent, from Human Resources we make use of employee potential through our corporate recruitment and internal selection policy. Throughout last year, we continued to publish positions internally which arose in different projects throughout the world, giving priority to satisfying our employees' vocations. Proof of this is that last year we processed more than 100 internal recruitment processes successfully.

Moreover, we continue to work on offering our best reward and benefits programme through flexible remuneration which allows rewarding potential talent and performance efficiently.

Furthermore, Isolux Corsán's commitment to fostering young talent has,

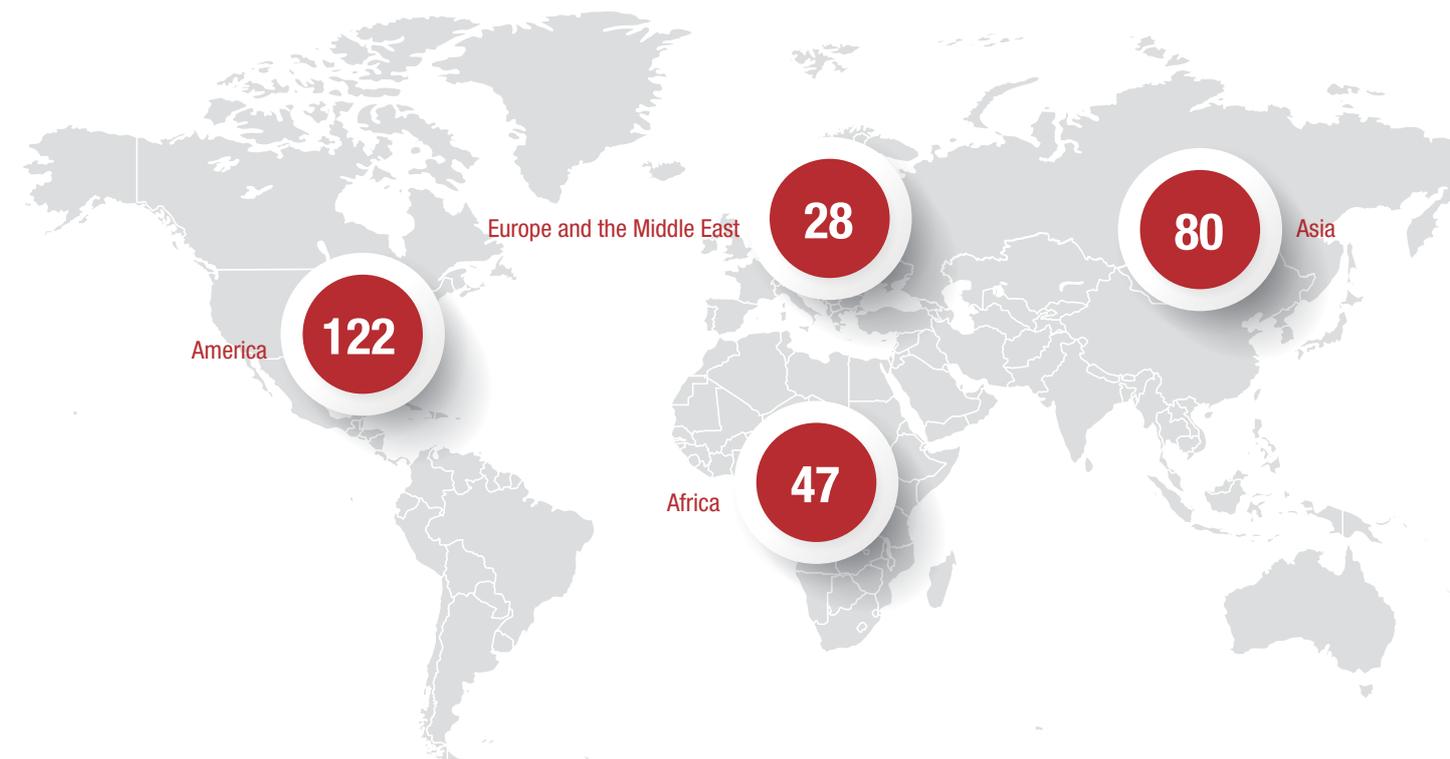
for the second year running, led us to participating in the "Internationalisation Scholarships in the Engineering Sector" and in the "Postgraduate Course for Specialisation in the Energy Sector" by the Professional Association of Civil Engineers in Madrid. This project had the objective of promoting students or recent graduates who have training and a vocation directed at developing a professional career focused on the international environment. After a tough process comprised of various phases, not only did we select candidates for obtaining the scholarship but they were also directly recruited for projects in India. This is why Isolux Corsán feels pride at contributing to the start of brilliant international careers.

### Development opportunities

Likewise, our employees continue to have the opportunity to develop their professional career upwards, as well as transversally and internationally. Throughout the year, we promoted approximately three hundred new expatriations and more than a thousand short-term international transfers on four continents, and even in new countries such as the United Kingdom, South Africa, Uganda, Rwanda, Uzbekistan and new projects on the East Coast of the United States.

We have taken steps in the global harmonisation of conditions for expatriations, regardless of the country of origin and the destination, both with regard to economic, fiscal and migratory aspects.

## EXPATRIATES BY GEOGRAPHICAL AREA



## Employment climate

2013 saw the start of the challenge to analyse the results of the employee satisfaction survey.

From the results obtained, the clarity of functions can be highlighted as strengths, as well as knowledge of how to perform the work, management, strategy and quality of projects, collaboration between divisions and the efficiency of colleagues, the importance given to work, resources management and the organisation and planning by senior management. With regard to our values,

all of these were given positive responses, highlighting in particular "Result-oriented" and "Commitment". Generally speaking, there is clear satisfaction with the company; more than 84% of those surveyed indicated that they would work with Isolux Corsán again and more than 87% would recommend working in the company.

Thanks to the study undertaken, and the results obtained, we have earmarked different challenges for the forthcoming months.

## Exhaustive and integrating training

During 2013, a training plan was implemented based on two characteristics:

- To extend the variety of contents for training activities in order to provide a solution for all existing requirements
- To include groups as far as possible, regardless of their circumstances (knowledge, geographical availability, etc)

As an example of this, 84.7% of the staff participated in training days.

A significant detail is that the number of training activities increased by 3.4% (up to 246) which implies greater variety in the contents and themes discussed.

From the distribution of these contents, the growth in the percentage of activities directed at improving linguistic skills as the result of entering new countries can be observed. Last year, the number of languages included in the previous training plans increased to English, French and Portuguese. During 2013, we also

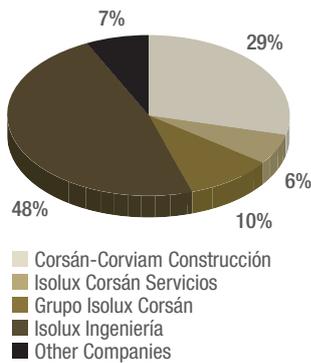
increased the percentage of actions on the Prevention of Occupational Risks as the consequence of searching for new topics after recent financial years during which we implemented a strategic plan covering all knowledge in this area.

With regard to the training modality used in our activities, an effort was made to offer a higher percentage of in situ training, from 31% in 2012 to 57% in 2013.

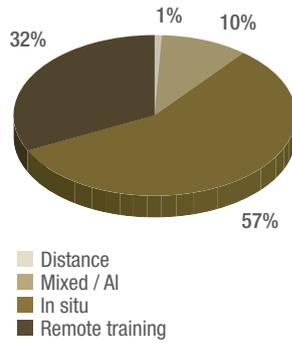
This fact is based on the extent of specialised training on the Prevention of Occupational Risks which requires facilities, resources and, above all, more practical aspects to meet the pedagogical objectives that we set.

Furthermore, the distribution of participants in our training activities, depending on their position, shows our determination to reach all groups, however primarily those whose professional development is more critical. As such, 3% of training hours were aimed at senior staff.

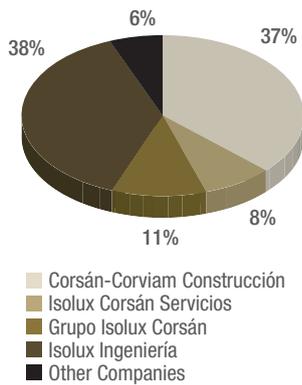
PARTICIPANTS PER COMPANY



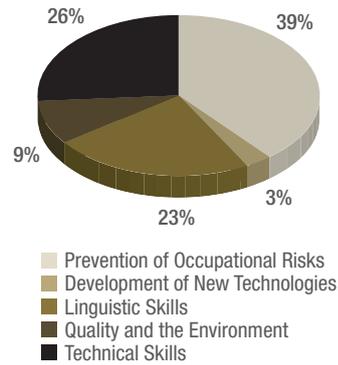
% HOURS PER TRAINING MODALITY



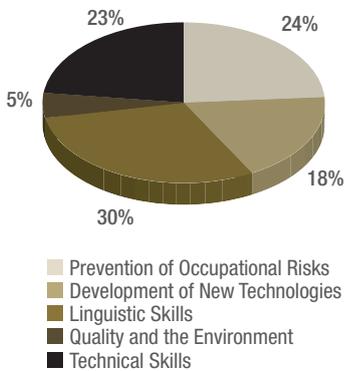
TRAINING HOURS PER COMPANY



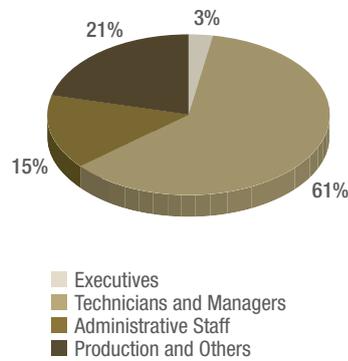
TRAINING ACTIVITIES PER CATEGORY



TRAINING HOURS PER CATEGORY



% HOURS PER JOB CATEGORY



## Human capital as an essential asset

Isolux Corsán builds its Social Corporate Responsibility on a fundamental base: the interpretation of the human team as an essential asset. Key factors in our development are their wellbeing, improvement capacities, knowledge of the company and the environment in which they work.

### Health and safety campaigns

Within the framework of this commitment to the human team, the interpretation of health in preventive terms continues to be essential.

### Medical check-ups

In 2013, a total of 3,975 medical check-ups were performed: 1,688 on new employees and 2,287 annual periodic check-ups. This is a global initiative (developed in all the countries in which the Group is active) however it follows the model of specific medical protocols based on the assessment of occupational risks associated with the different positions.

### Medical assistance

The global personality which defines the Group requires great responsibility with regard to healthcare. The staff at Isolux Corsán is distributed throughout the world and has a healthcare insurance policy. All workers: whether local, transferred or repatriated. In each country where we work we endeavour to adapt, or improve, the occupational health and safety policies to the standard in force. To this end, in addition to having the col-

laboration of local clinics, there is also collaboration with specialised entities in the case of specific requirements.

Isolux Corsán provides healthcare in its headquarters and for different projects. The professional healthcare team (doctors and registered nurses) includes periodic check-ups, healthcare medicine and first aid amongst its activities.

These healthcare services have to adapt to the reality and needs of each country where we work. This ranges from the implementation of vaccination campaigns for influenza, hepatitis or tetanus up to material checks.

The medical service assigned to each project carries out daily checks on staff whose activity is considered as being particularly exposed to risk (working at height, confined spaces, etc.). During such check-ups, amongst other things, aspects such as blood pressure and the blood sugar level, are tested.

As part of this general cover, in some countries the control has been more exhaustive or campaigns have been carried out in accordance with the specific requirements identified.

As such, in 2013, in the projects undertaken in Brazil, in addition to those already highlighted, vaccination campaigns were carried out for yellow fever and hepatitis and particular attention was given to malaria control. In Mexico there were awareness campaigns for toxoplasmosis, atopic dermatitis, weight loss and infectious mononucleosis. And, in Armenia, there were awareness campaigns for HIV/AIDS.



3,975

**Medical check-ups**

in 2013, 42% of which were carried out on  
new employees





## Equality, integration and diversity

Human Resources fosters the principle of equal opportunities amongst workers. As a result, we pay special attention to the implementation of actions which contribute to equal treatment and opportunities between men and women in all our processes and activities.

- Selection processes
- Internal mobility
- Performance evaluation
- Internal promotion
- Training
- Reconciliation

This equality policy includes all our projects from the outset, and leads us to promoting the efficient management of talent amongst women and men throughout the organisation.

Isolux Corsán ensures the balanced distribution of staff and works to improve working conditions, fostering measures for reconciliation and driving a business

culture aimed at equality and the prevention of any discriminatory conduct.

The global nature of the Group, with employees with more than 35 nationalities, makes us defend the integration of cultural diversity in our organisation and the merging of perspectives create value in our activity.

Jointly, we foster collaboration and cooperation amongst teams and people, both through assigning projects and functions, as well as through our communication and collaboration tools.

The Group, in particular its sensitivity towards its social responsibility, maintains its firm commitment to facilitate the integration of people with disabilities in order to favour personal and professional development. We have set recruitment objectives and actions directed at facilitating accessibility and the removal of barriers which are to the detriment of any

individual. As part of this commitment, we make annual contributions, through different foundations, to the wellbeing of groups with different disabilities.

### Reconciliation of family and work

Isolux Corsán foment the reconciliation of the professional and family life of its employees as part of the commitment made to its staff.

### Family Plan

The Family Plan, developed by Isolux Corsán and the Adecco Foundation, provided cover in 2013 to ten relatives of employees with disabilities. The project, designed to favour the social and occupational integration of these people performed assessments and diagnoses which allowed applying therapies and treatments adapted to their pathologies.

## Respect for the privacy and confidentiality of data

For yet another year the Group has continued ensuring correct access to and the security of information as stipulated in the Spanish Organic Law 15/1999 of 13th December on the Protection of Personal Data and the Regulations for the Security Measures (Royal Decree 994/19999 of 11th June). In this respect, all files under our responsibility, which contain personal information, have been kept updated and registered by us in the General Register for Data

Protection. The organisation has a security document which it is mandatory to complete for all staff with access to automated data of a personal nature.

An external audit was also performed on the organisation's IT controls, the verification of all aspects concerning logical security, physical security, segregation of functions, contingency plan and other aspects which ensure the correct access to and confidentiality of the information managed by the Group

## Freedom of trade union association and collective bargaining

Isolux Corsán respects its employees' freedom of trade union association and the effective recognition of the right to collective bargaining by staff representatives and trade unions in accordance with the applicable legislation in each country.

We have four agreements of our own and, for the rest, collective sector agreements are applicable.

### TRADE UNION REPRESENTATION

Centre	Number
Grupo Isolux Corsán	8
Isolux Ingeniería	38
Corsán-Corviam Construcción	50
Gic Factories	3
Emesa	9
Isolux Corsán Servicios	17



## Prevention as the operational basis

Isolux Corsán implements all its activities in all the countries in which it operates by guaranteeing the most demanding standards which exist with regard to occupational health and safety.

Our Health and Safety Policy is updated and permanently adapted to the changes in the standards regulating this area and is applied to the Group's entire value chain, in particular, to employees in all areas and at all hierarchical levels.

The corporate Intranet contributes to this task by making the Management Manual and the general and specific procedures comprising the Health and Safety Management System available in four languages (English, French, Portuguese and Spanish).

Isolux Corsán works continuously on an action plan based on the following points:

- Direct monitoring of the level of implementation and compliance of the system in different countries through an increase in periodic visits to different projects and headquarters to perform the corresponding audits.

- Increase in training on the production line system and on the risks associated with the activities undertaken, directed both at internal staff and subcontractors and/or collaborators.

The Management System for the Prevention of Occupational Risks implemented is based on the international Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and is adapted to the legislation in force in each country.

For the management of Health and Safety there is a specific computing tool (People Net) which enables the objective monitoring of the health and safety activity and issues monthly reports in which the activities undertaken and the evolution of the accident rate are featured which makes detecting improvement areas easier.

All Isolux Corsán companies are periodically subjected to internal audits during which the degree of compliance is compared and verified and the implementation level of the Health and Safety Management System. In 2013, 604 audits were carried out on the different Group projects.

## The importance of health and safety training

The Training Plan on the Prevention of Occupational Risks, which is fundamental for the health and safety policy, is integrated in the Group's Annual General Training Plan. All employees are given training on health and safety when they join the company and complementary training depending on the

characteristics of their job. The number of actions, input hours and the number of workers who have received training on safety issues are featured in the management indicators table which is described below.

### TRAINING 2011-2013

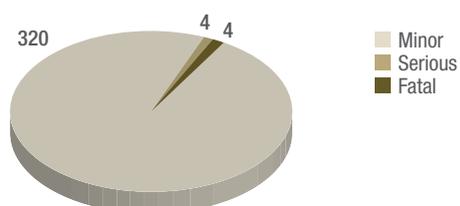
Indicators	2011	2012	2013
Training activities	1,508	4,317	3,153
Hours of training activities	12,054	14,847	38,373
Trained workers	10,858	43,606	35,621
Drafted and revised safety plans	1,518	1,246	1,049
Business activity coordination meetings	604	689	476
Accident investigation report	268	337	328
Internal audits	600	624	604
Visits to sites and work centres	2,917	3,217	1,960
Ergonomic studies / hygienic assessments	6	23	20
Emergency plans	23	34	41
Awareness actions	5,370	19,47	19,534

## Evolution of the accident rates

The company is making a huge effort with regard to health and safety, maintaining its accident rates under those

corresponding to the different sectors of the activities it implements.

### 2013 OCCUPATIONAL ACCIDENTS



### ACCIDENT RATE 2011-2013

Rate	2011	2012	2013
Incident Rate (No. accidents / no. workers) x 10 <sup>3</sup>	36.96	35.07	41.24
Frequency Rate (No. accidents / no. workers) x 10 <sup>6</sup>	15.78	16.24	19.09
Severity Rate (Days off work / hours worked) x 10 <sup>3</sup>	0.33	0.23	0.32



# 2

## Creation of value

### Support for the entire production chain

**The commitment to the Group's sustainability is based on the value chain**

Isolux Corsán implements its Social Corporate Responsibility (SCR) on the value chain, which places the emphasis on its staff, however which is extended both to clients and suppliers. In

this way, the value chain becomes the conveyor of social and environmental performance which comprises the commitment to the Group's sustainability.







## Communicative transparency

Isolux Corsán considers communication as a fundamental asset to improve its competitive capacities. As such, it informs its stakeholders on the basis of transparency and commitment.

In this sense, the company worked throughout 2013 on communicating its challenges and projects. As the result of this effort, a total of 1,246 pieces of information\* were counted. 33% of this information was published using international media with the clear dominance of online media (71%).

During this period, Isolux Corsán's Intranet consolidated itself as an impor-

tant tool for the Group's employees which enables discovering the latest company news as well as establishing synergies amongst all staff.

This space, constantly improved and updated, represents a venue for all the Group's employees, regardless of the country they are in. During 2013, new collaborative spaces were opened where workers can share their knowledge and experiences. Forums, wikis and blogs are the new 2.0 tools which have been made available to resolve the Group's extensive geographical dispersion.

## A philosophy focused on customer satisfaction

Isolux Corsán's activity is focused on satisfying its client's needs. A commitment which entails a continuous improvement philosophy. To achieve this, the company always seeks the most direct contact possible with the client.

This follow-up, which is carried out by the Commercial and Production areas, allows us to optimise resources in harmony with the clients' priorities and to strengthen those areas in which improvement requirements are identified.

Satisfaction surveys represent a key measurement tool in this process. During these surveys the client considers aspects such as the quotation, the processing of their complaints, the quality of

the documentation or, in overall terms, the quality of the project delivered. Their answers and the improvement suggestions contribute to our objective of surpassing ourselves each day.

By using the Quality and Environment Management computing tool we see a constant improvement in customer satisfaction in each financial year.

### SATISFACTION

Year	Mark / 100
2008	76.96
2009	77.57
2010	80.04
2011	81.67
2012	82.04
2013	82.48

\*Data from GBA clipping

## Consolidation of a preferred supplier portfolio

In line with the operational efficiency that Isolux Corsán implements for all of its project traceability, the company takes three key aspects as its basis for meeting its objectives: a standard which ensures practical improvements in contracting everywhere, systems which stimulate agility and traceability with regard to decisions and the optimum management of local and global suppliers.

In 2013, the main efforts made were directed at the consolidation of a preferred supplier portfolio for suppliers who collaborate on a global level in the successful development of our projects. The drop, compared to 2012, by 18% in the number of suppliers makes it clear that the company's intention is to optimise its services to the maximum and, as such, its suppliers portfolio.

Likewise, a balance was struck in relations on a corporate level with suppliers and fluid communication was consolidated with the countries where our projects are being executed, in such a way that the local aspect of the business is always taken into consideration.

In the same way, collaboration with local suppliers was of paramount impor-

tance in 2013. This collaboration framework allowed us to gain knowledge of all local markets and was essential for generating value in all the communities where we execute our projects and works.

Isolux Corsán's procurement and supply teams are trained on the application of standards and procedures and have precise knowledge with regard to all the legal, fiscal and logistical implications in relation to transactions with products and services in a global market.

In 2012, the company established professionalism and the development of market research activities and the approval of international suppliers as a priority, by identifying supply sources which guarantee the planned quality and costs.

Within a framework of global competition, this efficiency in the management of suppliers reveals itself as the key factor in the improved competitiveness of operations, given that the majority of costs for projects originate from third party materials and services.

### SUPPLIERS 2009-2013 | MAIN STATISTICS

Project	2009	2010	2011	2012	2013
Total procurement volume with suppliers (M€)	2,408	2,550	2,590	2,465	2,091
Total procurement volume with local suppliers (M€)	1,862	2,002	1,945	1,903	1,665
Total number of suppliers	19,572	20,015	20,314	18,958	15,436
% total of local suppliers	77.24	79.43	78.82	77.74	79.65



## Quality in all our areas; our hallmark

### Quality management as part of corporate culture

Quality represents the basic parameter which determines our success. Isolux Corsán's Quality Management Systems is incorporated in all the activities and countries where we operate. In this way, the company's culture in all our projects is guaranteed.

Isolux Corsán is aware that growth and competitiveness in all business areas are closely tied to the level of customer satisfaction in our products and services. The Corporate Quality Policy sets forth the following commitments:

- The development and implementation of Quality Management Systems appropriate to the organisation and in accordance with the principles stipulated in the ISO 9001 standard and, within this policy, the adoption of measures which enable the continuous improvement in the efficiency of the implemented systems.
- Compliance with the requirements applicable to the products and services supplied as required by the mandatory standards and specifications stipulated by the clients for whom these are carried out.
- Optimisation of the management of the working processes and methodologies, information, supplies, resources and capacities and of internal or external relations implicated in the implementation of the activities.
- To set-up and control meeting objectives consistent with this policy and in accordance with the organisation's capacities. To ensure that these objectives contribute to improving the quality of our products and services and the efficiency of the quality management system.
- Periodic review of this policy in order to ensure that it is in line with the Management's vision and strategic objectives, and with the requirements detected at any time within the environment of the social market and inherent in the implementation of the business activities.
- Company Management ensures the implantation of the necessary measures in order to guarantee knowledge of the Quality Policy, as well as its implementation throughout the entire organisation.



## Internal audits

In Isolux Corsán we are aware of the importance of having the effective monitoring of all our activities. Our experience in the implementation of Management Systems translates into a culture where

everything can be measured and, as such, improved.

Internal audits represent one of the fundamental tools for constantly searching for excellence in all our operations.

### NUMBER OF INTERNAL AUDITS

Area	2010	2011	2012	2013
Corporate	6	11	11	11
Construction	72	100	59	41
Engineering and Services	70	77	70	65
Concessions	0	1	2	11
TOTAL	148	188	140	128

## Extension of management systems to all projects

In 2013, the consolidation of the implementation of the Health and Safety, Quality and Environment Management Systems was ratified in countries where Isolux Corsán has been working for years and, in new countries, work has started on implementing management systems based on the organisation's commitment to its policies.

In countries where there is a larger volume of projects there is a Quality, Health and Safety and Environment Corporate Body responsible for the adaptation (whilst always bearing in mind the countries own requirements), implementation and consolidation of the management system according to the standards ISO 9001, ISO 14001 and OHSAS 18001. In new countries and/or countries with a smaller number of projects, QHSE systems and policies have been implemented with the support of professional technicians from the actual project. Technicians are instructed according to the guidelines from the Quality, Health and Safety and Environment Corporate Body from company headquarters and the organisation's policies and values. It is the Corporate Body in the main headquarters who analyses the infor-

mation generated by the international and national projects, in addition to consolidating the accident rate indicators, non-compliance, internal audits, training hours, etc. The overall consolidation of the indicators reflected in the dashboards goes on to form part of the database which allows us to detect progress, ascertain requirements and implement preventive and corrective actions with the aim of achieving continuous improvement in the management systems.

The support and monitoring of the management systems is carried out with: periodic visits to projects, internal audits, training, information / training campaigns, the use of specific computing tools, periodic meetings, dashboards, reports, video conferences, etc. without overlooking the main values contained in the Quality, Environment and Health and Safety policies:

- Legal compliance
- Integrity and transparency
- Efficacy and efficiency
- Safe working environments
- Commitment to quality and customer satisfaction
- Prevention of pollution



## Compliance with international standards

### ISO 9001 (Quality) and ISO 14001 (Environment)

Isolux Corsán implements all its Management Systems according to the international standards ISO 9001 and ISO 14001. Moreover, all of these are supervised and verified by independent certification bodies which review our Management Systems every year and check that their application is in compliance with international standards.

### EMAS Register

The factory Elaborados Metálicos Emesa has the environmental certification according to the EMAS regulations, a voluntary EU standard which recognises companies which have implemented an Environmental Management System and have acquired a commitment to improvement.

By virtue of this commitment, Emesa makes a periodic environmental state-

ment which systematically features and documents the sound performance of factories in favour of environmental sustainability through the control of the impact on all activities and processes related with their production lines.

### OHSAS 18001:2007 | Health and Safety

External audit processes allow us to promote the continuous improvement of our Management System. As a result of this, the certification of different companies in the Group is encouraged according to the specification OHSAS 18001:2007.

Throughout 2013, the certified companies in the Group were subjected to the corresponding periodic audits, both internal and control or recertification, by independent certification bodies and with internationally renowned prestige.



## CERTIFICACIONES

Empresa	Certificate	Scope-Country
Grupo Isolux Corsán	ISO 9001 + ISO 14001 + OHSAS 18001	Spain
Corsán-Corviam Construcción	ISO 9001 + ISO 14001 + OHSAS 18001	Spain
Isolux Ingeniería	ISO 9001 + ISO 14001 + OHSAS 18001	Spain
Isolux Corsán Servicios	ISO 9001 + ISO 14001 + OHSAS 18001	Spain
Watsegur	ISO 9001 + ISO 14001 + OHSAS 18001	Spain
Elaborados Metálicos	ISO 9001 + ISO 14001 + EMAS + OHSAS 18001	Spain
Corvisa Prod. Asfálticos y Aplic.	ISO 9001	Spain
Typsa	ISO 9001 + ISO 14001	Spain
TECNA	ISO 9001 + ISO 14001 + OHSAS 18001	Argentina, Bolivia, Brazil, Ecuador, Spain, Peru
Grupo Isolux Corsán / Isolux Ingeniería / Isolux Corsán Argentina	ISO 9001 + ISO 14001 + OHSAS 18001	Argentina
Isolux de México de C.V.	ISO 9001 + ISO 14001 + OHSAS 18001	Mexico
Isolux Corsán India	ISO 9001 + ISO 14001 + OHSAS 18001	India
Viabahía Concesionaria de Rodovías S.A.	ISO 9001	Brazil
Vías Administración logística S.A. de C.V. (Concesión Autopista Saltillo- Monterrey)	ISO 9001	Mexico
Isolux Corsán aparcamientos S.A.	ISO 9001 + ISO 14001 + OHSAS 18001	Spain

## Milestones in certifications in 2013

The most remarkable milestones in the certifications of management systems during the financial year 2013 were:

- Isolux Corsán Argentina. Follow-up audits were performed in the Energy and T&D area, expanding the scope in 2013 to the execution of wind farms according to the three standards ISO 9001, ISO 14001, OHSAS 18001.
- Isolux Corsán Mexico. Follow-up audits were performed in the Construction area, expanding the scope in 2013 to the design and execution of transmission lines and substations according to the three standards ISO 9001, ISO 14001, OHSAS 18001.
- Isolux Corsán India. Certified for the first time according to the three standards ISO 9001, ISO 14001, OHSAS 18001, in the areas of construction, transmission lines and substations.
- TECNA. The company performed its follow-up audits for the ISO 9001, ISO 14001 and OHSAS 18001 certificates, for the countries, Argentina, Spain, Ecuador, Bolivia, Peru, Brazil.
- Concessions. The concessions area was certified for the first time according to the three standards ISO 9001, ISO 14001, OHSAS 18001, for its activities in car park operations.
- In Spain, follow-up and renewal audits were successfully performed according to the areas of construction, engineering and corporate services according to the standards ISO 9001, ISO 14001, OHSAS 18001.



# 3

## Community and the local environment

### Committed to the local environment

#### Improving the life of the inhabitants where we operate: a priority

Isolux Corsán is a company which shows great involvement with the environment in which it operates, particularly in those countries and communities with greater social and economic requirements.

In the implementation of the projects, the Group ensures that it provides the maximum social and economic benefits for the areas in which it executes its pro-

jects. By contracting local suppliers and workers the company highlights its commitment to communities with regard to the creation of employment.

Moreover, Isolux Corsán actively participates in educational and training activities and, by donating the project execution infrastructures, contributes to improving the quality of life of the local population.





## North America

### Mexico

In this country, the company collaborates with the Red Cross in the food collection campaign for victims of the floods caused by hurricanes Ingrid and Manuel which struck various areas in the south of the country.

Food collection **Mexico**



## Asia

### India

In the sphere of influence of one of the most emblematic projects in India, the NH-2 road, the Group participated in the construction of structures for the local community and supported planting in local villages.

Planting in local villages **India**



### Bangladesh

In the sphere of influence of the Khulna plant, the company donated €19,000 for the Boy Scouts of Bangladesh, sponsored the country's Electricity Week with a donation of €19,000 and participated in the renovation of a school close to the electric power plant.

Workers on the Kolda site **Senegal**



## Africa

### Senegal

Within the constructive context of the Kolda Bridge, the Group undertook the following activities:

- Information and awareness meetings on the project and the works for lot 2 directed at the local population
- Training talks on the precautions to be taken when applying for loans for road materials and works in general

## Europe

### Spain

The Group performed various activities in its central headquarters in Madrid such as:

- 1st Cycle of Conferences “Standardisation of Disability”
- 1st Adapted Paddle Tennis Tournament, organised in collaboration with the Adecco Foundation, directed at workers and relatives and in which those with reduced mobility participated
- 1st Course “First Aid for babies and children” the result of collaboration with the Spanish Red Cross
- “Solidarity Hamper 2013” campaign. This is comprised of the voluntary donation of the Christmas hamper. A donation of 45 kg of basic foodstuffs was made to the Food Bank for each hamper donated. Finally, 218 hampers were donated which was converted into almost 10,000 kg of basic foodstuffs.

### Armenia

In this country, Isolux Corsán offered the community support in training through collaboration with the NGO “Real World, Real People” with the aim of making both workers and residents in the local communities in the vicinity of the road project aware of how to fight AIDS and how to overcome people trafficking.

Moreover, the company provided healthcare for the community and the workers by promoting visits to a doctor in the project area.

The Group promoted the contracting of local employees with the objective of contributing to the economic dynamism of the community.

The information campaigns to publicise the project to the population in the road’s sphere of influence are other activities which round off the company’s social endeavour in the country.



Exhibition on the projects **Armenia**



Participants in the 1st Adapted Paddle Tennis Tournament **Spain**



Campaign against sexual and child exploitation **Brazil**Environmental education in the Cajari River **Brazil**Visit to the San Felipe plant **Argentina**

## South America and Central America

### Brazil

Within the execution framework of the transmission lines project in Macapá and Xingu, the company performed various training activities focused on the prevention of occupational risks, safe conduct and fire protection, educational activities directed at preventing and fighting illnesses such as malaria, vaccination and awareness campaigns against smoke in work areas and informative talks to prevent food poisoning.

Along these lines, the Group has worked on other initiatives such as:

- Transfer of office materials, computing equipment, household appliances and health and safety equipment to the Casa da Cultura de Areias foundation in Sao Paulo
- Donation of recycled materials to the Cooperativa dos Bandameiros de Feira in Santa Ana
- Donation of 18 basic food hampers in the municipality of Oteiro and of clothes to the communities in the vicinity of the Vidabahia motorway
- Dissemination and promotion, through the Viabahia concessionaire, of awareness campaigns against sexual exploitation and child labour, against foot-and-mouth disease and in favour of organ donation

- Courses on good environmental practices, responsible consumption and healthy eating for employees and members of neighbouring communities
- Environmental education activities in the RESEX communities of river Cajari and RESEX Verde para Sempre
- Resuce and monitoring programmes of fauna in Jurupari, Oriximiná, Laranjal and Macapá
- Social communication campaigns to strengthen the relationship with the population, to provide information on projects and to offer the keys to safe co-existence with the municipalities of Tucuruí, Pacajá, Anapu, Vitória do Xingu, Porto de Moz and Almeirim
- Family planning programme and the prevention of sexually transmitted diseases in the RESEX communities of river Cajari
- 3rd Environmental education campaign through Rodobahia Construcción

### Argentina

- The company provided training support for the community through visits by students from the 2nd year of the Higher Degree in Occupational Health and Safety in the National

Technological University and by Civil Engineering students from the Professorship of Sanitary Engineering (Tucumán)

- Donations of materials were made for urban development works for the streets of Barrio Villa Rubencito in Punta Lara (Buenos Aires)
- It collaborated in the manufacture of children's games for installation in the main square of the new commune of Sauce Viejo (Santa Fe)
- It collected essential food items and products to donate them to victims of the floods in the city of La Plata (Buenos Aires)
- It participated in the donation of office furniture and equipment to Rural School No.198 in the city of Neuquen (Santa Cruz)
- It organised student visits for training purposes to the Usina de Río Turbio
- It actively participated in organising activities for Children's Day

### Colombia

Within the framework of the El Alcaraván project, the company made economic and material donations to the local community and participated in various initiatives such as:

- Improvement works to the children's play park in Puerto López
- Project staff collaborated with the local town council in street works and urban cleaning
- Participation in the Halloween party with a stand for children

As part of the Puerto Bahía project the Group made various donations to the local community which included food, machinery and site materials. Moreover, it provided technical and logistical support and performed labour integration actions for the local community and environmental and social awareness days.

### Peru

During the execution of the building project for the Chilina Bridge, Isolux Corsán organised an informative workshop on this project: Chilina Bridge "A Bridge to the Future" for the purpose of providing information on the benefits of this construction and highlighting the importance of environmental practices which are conducted in relation to this project.

Moreover, the company carried out an awareness campaign directed at employees in order to foster dental care and health and a vaccination campaign to prevent illnesses.

Donations to victims of the floods in La Plata **Argentina**



Help for rural schools **Peru**



Campaign for dental care **Peru**



# 4

## The Environment

### Prevention and improvement

**We are committed to environmental protection**

The Group's Environmental Policy conveys its commitments to the prevention of pollution, legal compliance in environmental issues and continuous improvement in environmental man-

agement. This policy is disseminated to all levels in the organisation and is included in all its activities regardless of the country in which it is being applied.





## The efficacy of the environmental management system

Based on this Environmental Policy, Isolux Corsán undertakes to:

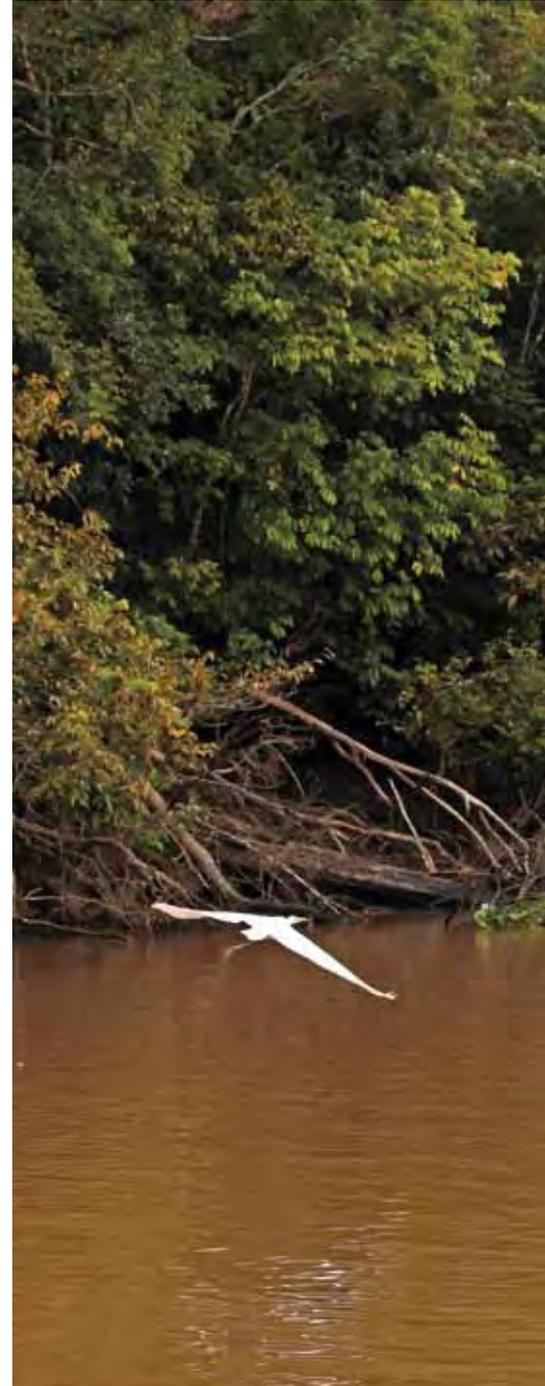
- Develop and implement Quality Management Systems appropriate for the organisation and in accordance with the principles stipulated in the ISO 14001 international standard and to adopt measures which enable the continuous improvement of the efficiency of the implemented systems.
- Set-up and control meeting objectives consistent with this policy and in accordance with the organisation's capacities.
- Ensure that these objectives and targets contribute to gradually increasing good environmental conduct and the efficiency of the management system.
- Apply practices aimed at the prevention and reduction of pollution, thus trying to minimise the most significant environmental impacts.
- Comply with the applicable environmental legislation and other requirements that the organisation endorses related with its environmental aspects. Maintenance of the relevant available information which is kept properly updated.
- Periodically review this policy in order to ensure that it is in line with the Management's vision and strategic objectives and with the requirements detected at any time in the environment of the social market and inherent in the implementation of its activity.

### Identification of the project's environmental aspects

In all of its projects, Isolux Corsán includes the identification of the environmental aspects associated with them. As such, planning is approached using tools which assess the work in its entirety in such a way as to ensure that the whole process guarantees the strictest compliance with legal environmental requirements, from the start of the activity up to the project handover, and the commitment to prevent any pollution.

The environmental aspects are classified as real and potential. The former refer to water pollution, consumption of natural resources/products, soil damage, acoustic emissions, atmospheric emissions, inert waste, hazardous waste, urban waste and the use of raw materials. The latter refer to accidents and incidents.

In 2013, within the category of "real" aspects the highest percentage corresponds to the generation of inert waste (30%), followed by the generation of urban waste (19%) and hazardous waste (15%), along with the consumption of natural resources/products (13%).





## Environmental protection; the key to the future

The Environmental Management System is a key tool for knowing, controlling and minimising the environmental risks derived from the activities performed by the Group. We are making progress in consolidating the existing corporate structure in each country to improve the implementation and monitoring of environmental management during projects. Indeed, this is done both in environmental prevention issues and in the adaptation to changes in the legislation and legal requirements which occur in these countries.

To this end, we bear the following principles in mind:

- Implementation of good practice in environmental management, regardless of the country in which the activity is carried out.
- Strengthening of the standardisation system in the identification and assessment of environmental aspects.
- Setting forth of measures which minimise the environmental risk.
- Strengthening of training on environmental issues for the project teams in all the countries where it undertakes its activities.
- Reporting and monitoring of indicators for consolidating the information originating from the different countries where we operate.
- Implementation of execution controls and internal audits in all ongoing projects.

- Monitoring of the environmental objectives set for the year and information compilation with regard to the benefits obtained.
- Setting of new objectives, the monitoring and review of systems.

### Commitment to renewable energy

For yet another year, Isolux Corsán has ratified its commitment to renewable energy by considering it a fundamental aspect in the fight against climate change, as well as a real and efficient alternative to reduce energy dependency.

T-Solar, one of the Group's subsidiaries, is clear proof of the application of sustainable development principles in all of its activities. This company is a prime example of how economic profitability must be combined with the commitment to citizens and environmental conservation.

Energy produced by T-Solar

In 2013, the photovoltaic power plants which are managed and operated by T-Solar generated more than 376 GWh of energy, equivalent to the annual average domestic electric consumption of a population with more than 715,000 inhabitants.

The clean electricity generated by T-Solar in 2013 prevented the emission of more than 134,00 tonnes of CO<sub>2</sub> into the atmosphere<sup>1</sup>, which is equivalent to planting 7,986,741 trees<sup>2</sup>.

1) Reduction in emissions: 0.358 Kg of CO<sub>2</sub> per kWh produced (according to the Electricity Observatory of WWF/Adena).

2) Equivalence in tree planting: 1,780,000 trees for every 30,000 tonnes of CO<sub>2</sub> (according to the Regional Ministry for Economics and Technological Innovation of the Community of Madrid).



## Efficiency and energy control

The optimisation culture in energy consumption pursues the following objectives:

- Improvement in the energy efficiency ratio
- Improvement in the water consumption efficiency ratio
- Minimisation in waste generation and improvements in its management
- Integration of environmental aspects in all activities

The plan implements actions such as:

- Installation of taps with timers and aerators in the toilets
- Installation of timers and presence sensors in some parts of the building
- Automatic switch off of lights and air-conditioning
- Replacement of printers and photocopiers with other lower consumption equipment
- Creation of a printer and photocopier pool (reduction in their number)

- Internal standard in order to optimise office material
- Environmental good practice communication advertising

### Carbon footprint

In 2013, the Group started a project for obtaining the carbon footprint for all its permanent centres, factories and projects in Spain following the guidelines indicated by the standard UNE-ISO 14064-1: 2006. Greenhouse gases Part 1: "Specification with guidance on an organisation level, for quantification and reporting of greenhouse gas emissions and removals".

In the inventory of greenhouse gas emissions the following scopes have been taken into account:

#### Scope 1: Direct emissions

Greenhouse gas emissions from greenhouse gas emission sources which belong to or are controlled by the organisation. These emissions have been



estimated by identifying the sources of the emissions (machines, equipment, processes, etc.) in the permanent centres, factories and sites.

**Scope 2: Indirect emissions derived from energy**

Greenhouse gas emission associated with energy consumption in the various Group centres originating from the generation of the electricity produced externally in plants. The emissions associated with electric consumption are calculated using the 2013 emission factor provided by the Spanish Electric Network for the electric mix in the Spanish mainland system.

**Scope 3: For the current calculation, this scope includes employee rail and air travel and displacements in Spain.**

With these basic data, Isolux Corsán will set reduction objectives and will adopt measures directed at greater efficiency and control of consumption levels.

During forthcoming periods, the inventory will be extended to other countries where the Group operates and the calculation for scope 3 will include other indirect emissions which are the consequence of the company's activities, however which are not owned by or controlled by Isolux Corsán.

**TONNES OF CO<sub>2</sub> EQ.**

Project	Head-quarter	Factories	Permanent centres, sites, services	Total
Direct emissions (Scope 1)	62.75	1,042.69	6,028.78	7,134.21
Indirect emissions for energy consumption (Scope 2)	754.97	707.27	1,703.24	3,165.48
Emissions for national displacements by air and rail (Scope 3)				190.69
<b>TOTAL</b>				<b>10,490.38</b>

# 5

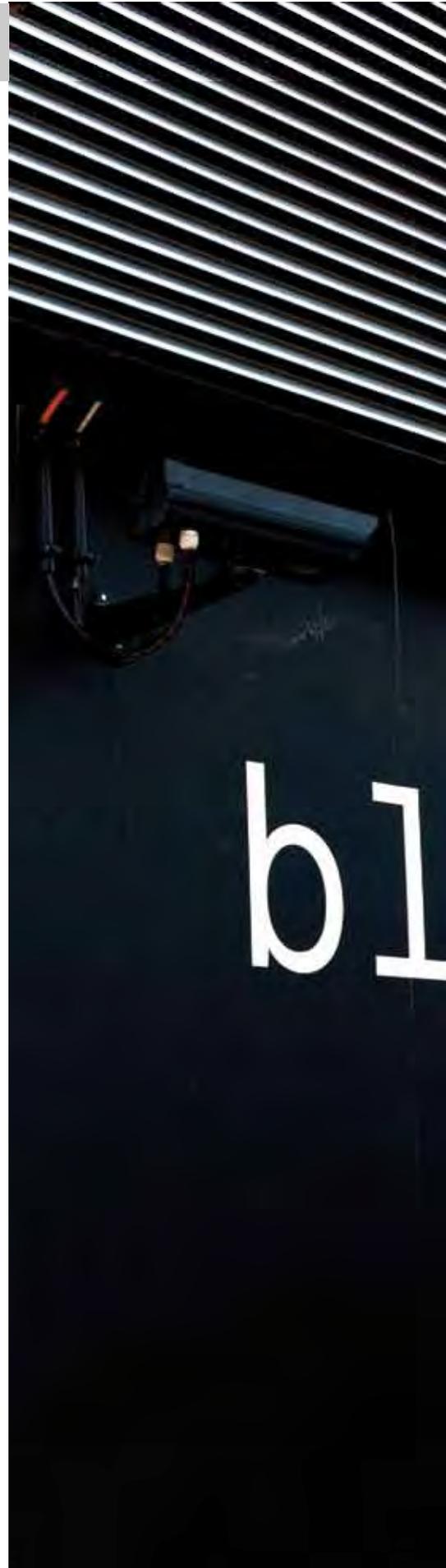
## R&D&I

### Fostering of technological development

#### Committed to research

Isolux Corsán has tried-and-tested experience in research, development and innovation projects. This experience has allowed us to develop a Management System according to the standard UNE 166.002:2006 which fosters the execution of R&D&I and Technological Innovation projects within the Group's Business Units. The commitment to innovation by Isolux Corsán takes shape in its R&D&I Corporate Policy. This policy is summarised by the following commitments:

- The development and implementation of the R&D&I Management System in accordance with the principles stipulated in the UNE 166.002:2006 standard and which enables the continuous improvement of its efficiency.
- To foment cooperation in our areas of business with external organisations who provide knowledge, methodologies and resources.
- The provision of a specific space in the organisation in order to set the R&D&I objectives, their evolution and measurement.
- To guarantee the availability of resources in order to meet the R&D&I objectives in order to know and analyse the latest technological advances in our sector.
- The detection of new ideas which enable the development of new products and services.
- The search for new business niches which improve the overall position of the company and its competitiveness.



DPC Telecom Portugal in Covilhá **Portugal**



L.000 técnico A

## Presence in the main R&D&I decision-making forums

During 2013, presence and participation in institutions and cooperation forums was strengthened where the future of R&D&I in this area is decided. In this sense, it is worth highlighting the Water of Spain Technological Platform, the PLANETA Platform, as well as ATTA.

Within this work framework the following action guidelines have been established:

- Monitoring of water technologies, renewable energy and the prevention of pollution.
- Selection of technologies which provide the Group with the maximum competitive advantage.
- Assimilation and implementation of the available technology in transfer agreements.
- Selection of the optimum access channels for the development of the technologies.

- Determining sales programmes for the technology developed.
- Use of institutional supports for innovation and technology.

From all of this endeavour, it is worth highlighting that during 2012 the Research and Development activity was performed in accordance with the requirements considered for the different markets, analysing world demographic trends and the resource of water to, in this way, provide a solution to future problems.

Within the railway sector the company has a framework collaboration agreement with the Administrator of Railway Infrastructures in Spain (ADIF) for joint collaboration in research, technological development and innovation activities in the Centre for Railway Technologies which ADIF has in Malaga.

The objective of the agreement is to cooperate in the launch of R&D&I projects

which contribute to increasing the competitiveness of Spanish companies with regard to railway issues. The collaboration includes the execution of research projects and programmes, reciprocal consultancy, training of research and technical staff and the creation of public-private consortiums.

In 2013, Adif, Isolux and Ingetam developed a "pioneering system in Europe" which allows taking advantage of the energy generated in the braking process for conventional network trains as confirmed by the public railway company.

This is the first prototype for a reversible continuous current electric substation which has been located in the electric traction substation of La Comba (Malaga) on the conventional Malaga-Fuengirola line and has enabled recovering 12% of the annual energy consumed on this line.



## Innovation in the area of construction

The certification of technical innovations which are implemented on site is a strategic priority for the Construction business area.

The company reflects each innovation in an R&D&I project report which is drawn up according to the requirements stipulated in the R&D&I Management System implemented in the organisation in accordance with the standard UNE 166002:2006. These reports are subjected to assessment by independent experts with the aim

of ensuring that these projects are ultimately certified according to the standard UNE 166001:2006.

During 2013, four new R&D&I projects were submitted for certification related to the technological areas for energy efficiency in hydraulics, reinforced concrete structures, geotechnics and foundations, materials technology (concrete), execution of viaducts and the mitigation of greenhouse gas emissions in construction infrastructures, both road and rail.

New Courts of Plasencia **Spain**





## Leaders in the research and development of new technologies

Corsán-Corviam Construcción forms part of the executive bodies of the Spanish Technology Platform for Construction (PTEC). This platform is comprised of the most important institutions, public research bodies, universities and companies in the construction sector. Corsán-Corviam Construcción is responsible for the Health and Safety Strategic Line (LESS), focused on the research and development of new technologies and solutions which improve safety and reduce the negative impact on employees' health.

Corsán-Corviam Construcción is executing and directing two projects within the health and safety area which are supported by subsidies from the INNPACTO programme from the Ministry for Economics and Competitiveness MINECO:

- New Intelligent Collective Prevention Systems in Dynamic Environments with Linear Infrastructures (PRECOIL).

- Integral Structural Monitoring System for Buildings based on Holistic Technologies (SETH).
- In the call for the Feder-Interconecta Galicia programme corresponding to 2013, the SEIRCO project was awarded – an intelligent expert system for the assessment of and training on risks in different environments in the construction sector.

### Investments in R&D&I in water-related projects

The R&D&I in the engineering area reinforces Isolux Corsán's position in the sector where its activities are optimised on a global scale. Specifically, the Environment Area made a considerable investment in R&D&I for water-related projects:

- Energy optimisation in water treatment, regeneration and desalination.



- Development of new technologies for water treatment, regeneration and desalination.
- Energy recovery from water treatment plant waste.
- Recovery of brine waste.
- Reduction in greenhouse gas emissions, an aspect of particular importance in water treatment infrastructures.

#### Main projects

The most representative projects in the integral water treatment cycle are:

- ADECAR. Application for the Capacitive Deionization of Wastewater. Financed by the Ministry of Science and Innovation through the INNPACKTO sub-programme the objective of which is to develop Capacitive Deionization technology in order to apply it to the regeneration of wastewater.
- ABECAR. Application of Catalytic Bioelectrolysis to Wastewater. Financed by the Ministry of Science and Innovation through the INNPACKTO sub-programme the objective of which is to develop Catalytic Bioelectrolysis in order to apply it to the biological treatment of wastewater.
- ANAGUA. Strategic applications of Nanotechnology in Wastewater. Financed by the Centre for Industrial Technological Development through FEDER ININTERCONECTA in order to develop “nano” technology in order to apply it to the regeneration of wastewater.
- TREFO. “Treatment and Regeneration of Wastewater Backflow using new Forward Osmosis and Microbial Fuel Cell technologies”
- LO2X. Treatment and energy recovery of sludge using oxidation in supercritical water, a European project corresponding to the LIFE+ call for proposals.



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