



INTEGRATED REPORT **2017**





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REPORT **2017**



La Pareda  
Thermal Power  
Plant in Mieres  
(Asturias)

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## Letter from the Chairman

(G4-1)

### DEAR FRIEND,

As Chairman of Elecnor, I am pleased to present the Group's first Integrated Report, which we produced in adherence to the international framework of the International Integrated Reporting Council (IIRC).

In a bid to provide a global transparent view of our company in 2017, this Report combines our business trends with a broad outline of our performance in terms of social, environmental and corporate governance aspects. The emphasis at all times is on the generation of value and the sustainable development of our business model.

### KEY FIGURES IN 2017

In 2017 Elecnor earned EUR 71.2 million, an increase of 4% compared to EUR 68.5 million the previous year. This was made possible by our two major businesses, Infrastructure and Concessions, and their various segments of activities.

Another key profitability indicator is normalised EBITDA, which is calculated on the basis of consolidated EBITDA and strips out the impact of the application of IFRIC 12 relating to Service Concession Arrangements to the transmission lines operated by the Group in Brazil. This stood at EUR 327 million in 2017, up by 12% against 2016.

This comprehensive panorama is completed by trends in sales, which hit an all-time record of EUR 2,317 million, an increase of 14% on 2016. The breakdown shows that the international segment is continuing to increase to gain specific majority weight: 59% of total sales, compared to 41% in the Spanish market.

All this confirms that the Group is still heading in the right strategic direction, in due adherence to principles such as those we singled out last year: prudent diversification, solid internationalisation, better cash generation, strict debt control and close cooperation between these two mutually enriching major businesses, Infrastructure and Concessions, unlocking synergies and enabling us to achieve greater operational efficiency.

As I mentioned at the beginning, these are the principles that will enable us to continue to generate value for the shareholder, and give our business model long-term sustainability.

**The emphasis at all times is on the generation of value and the sustainable development of our business model**

### FINANCING AND DEBT CONTROL

As you are aware, Elecnor has been working particularly hard on securing diversified funding sources at reasonable cost through a combination of long-term and short-term lines designed to ensure a high level of stability in terms of the maturity of our sources and to take full advantage of all-time low interest rates.

There were a number of new developments in this field in 2017. Firstly, signature of the novation of a syndicated loan contract the Company had arranged in 2014, which had already been novated in 2015 and 2016 to extend the term and make some improvements to the original conditions. The 2017 novation extends the term by a further year to July 2022, and again improves the margin conditions. The credit tranche was also reduced by EUR 100 million, and so the reduction of commitment fees adds to the savings on margins. The facility now has a limit of EUR 500 million (a EUR 300 million loan tranche and a EUR 200 million credit tranche).

The second development was the renewal of our commercial paper programme on the Alternative Fixed Income Market (MARF), increasing the limit from EUR 200 million to EUR 250 million. This programme enables Elecnor to maintain an alternative to bank funding at much better rates.

Finally, through our subsidiary Celeo Redes in Chile we completed a USD 594 million 30-year project bond issue for transmission lines in the country, in two tranches: an international USD 379 million tranche at an annual rate of interest of 5.20%, and another local Chilean tranche in "Unidades de Fomento" (UF) in the amount of UF 5,410,500 (around USD 214 million), at an annual rate of interest of 2.99%.

With regard to debt control, net corporate financial debt stood at EUR 222.7 million at year-end, compared to

EUR 272 million the previous year, falling by 18%. If we compare this to 2015, where debt stood at EUR 280 million at year-end, the cumulative decrease between 2015 and 2017 was 20%.

In terms of ratios in 2017, the Net Financial Debt/EBITDA ratio for the Restricted Group was 1.31, well below the limits set in the financial covenants. The Net Financial Debt/EBITDA ratio, including figures for projects and based on normalised EBITDA, stood at 3.9. Both ratios point to an improvement compared to the previous year.

#### SHAREHOLDER REMUNERATION

As we reiterate year after year, Elecnor pursues all its current policies with the twofold objective of consolidating the long-term sustainability of our business model and generating value for shareholders.

In terms of generation of value for shareholders, the company had an extraordinary year, with a return of 48% on changes in the share price, from EUR 8.98 per share at year-end 2016 to EUR 13.29 the following year. Meanwhile, the Ibex-35 index climbed by only 7.4%. Here we should add in the dividend return, which was 3.1% in the calendar year.

In due consideration of earnings in 2017, as part of our well-known philosophy of making our shareholder remuneration policy as stable and steady as possible, the Board of Directors resolved to propose payment of a second per-share dividend against 2017 profits of EUR 0.233868 to the 2018 General Shareholders' Meeting. If this proposal is approved, the total paid out of 2017 profits (including the interim dividend paid out in January 2018) will be EUR 0.286868 per share, 4% higher than in 2016.

### Elecnor has secured AENOR's ISO 37001 certification, the most modern and stringent international standard on anti-bribery management systems and the adoption of compliance protocols in general

I feel I ought to mention that in the last 10 years (2008 - 2017), in the throes of the harsh economic crisis of which we are all aware, the CAGR of dividend payouts was 2.5%, with no interruptions in any of those years, and always in cash. In absolute terms we are talking about payments of over EUR 220 million during that decade.

#### CORPORATE POLICIES

In 2017 Elecnor maintained what it considers key corporate policies to achieve its long-term objectives, including its focus on people and safety, in-depth digital transformation, the continuation of our internationalisation programme, and permanent action to perfect the regulatory compliance system.

Here we should point out the company's signature of the United Nations Global Compact, establishing our commitment to the Pact's 10 Principles in the areas of Human Rights, Employment, Environment and Anti-Corruption. We have also worked to bring the Compliance System into line with the requirements of ISO 37001 - Anti-bribery Management Systems, the international standard established as the most modern and stringent expression of worldwide management

systems to prevent bribery and for general compliance purposes, and we secured official AENOR certification in January 2018.

In 2018 we will continue to work on two of our major projects. One of these is Talent, the comprehensive personnel management project based on three main aspects: teamwork, talent and transparency. The other is Excellence in Safety, working to implement a culture of safety and prevention of occupational hazards at all our working locations. We will also continue to focus on innovation as a differentiation tool and a means of boosting competitiveness; we will work harder on our commitment to society through the Elecnor Foundation, which celebrates its tenth anniversary this year; and we will continue along the path to adapt the company to the recommendations of good Corporate Governance.

All these aspects, and our policies governing relations with communities or our contribution to the fight against global warming, are addressed in depth in this Integrated Report, which we have produced this year with a look back at our first 60 years. An anniversary which will help us take due note of our achievements during all that time, the result of much effort and commitment by those of us who work at Elecnor. However, it will also serve most especially to look

### This year, we celebrate our first 60 years - a trajectory of achievements as the result of much effort and commitment by those of us who work at Elecnor

towards the future. With confidence and a prudent attitude. But also with the passion of people who are aware they are the protagonists of a business story with a full charge of opportunities to continue along the path to profitable and sustainable growth.

Yours sincerely,

Jaime Real de Asúa  
Chairman



Rehabilitation work on the Harbour Authority Building in Gijón (Asturias)

# Board of Directors

## CHAIRMAN

Jaime Real de Asúa Arteche

## DEPUTY CHAIRMEN

Fernando León Domecq

Juan Prado Rey-Baltar

## CHIEF EXECUTIVE OFFICER

Rafael Martín de Bustamante Vega

## BOARD MEMBERS

Fernando Azaola Arteche

Miguel Cervera Earle

Isabel Dutilh Carvajal

Juan Landecho Sarabia

Miguel Morenés Giles

Gabriel de Oraa y Moyúa

Rafael Prado Aranguren

Emilio Ybarra Aznar

## SECRETARY AND DIRECTOR

Joaquín Gómez de Olea y Mendaro

## DEPUTY SECRETARY AND DIRECTOR

Cristóbal González de Aguilar Alonso-Urquijo

# About Elecnor

(G4-3)





# 60 years of history

Elecnor is celebrating its 60th anniversary in 2018. Six decades that have made the Group one of Spain's major exponents of infrastructure, renewable energies and new technologies.

## 1958-1969

A BIG BUSINESS PROJECT BEGINS

- Bilbao, 6 June 1958: Elecnor is incorporated
- Initial business activity: electricity distribution
- First offices in Valladolid, Navarra, Madrid and Valencia
- 1963 The move into telecommunications, the first successful diversification
- 1964 Creation of the first subsidiary: Postes Nervión
- 1967 Creation of the first foreign subsidiary: Rasacaven (Venezuela)

## 1970-1979

CREATION OF THE FOUNDATIONS FOR INTERNAL AND EXTERNAL GROWTH

- 1970 Work starts on thermal power plants
- 1972 First projects in the nuclear sector
- 1974 Creation of the second foreign subsidiary: Elecdor (Ecuador)
- 1976 Incorporation of IDDE, to drive international projects in the years following
- 1977 The company commences operations in the Canary Islands, thus giving it a direct presence in the entire Spanish market
- 1977 Projects commence on live working technology
- 1979 Workforce of over 2,500

## 1980-1989

FIRST LARGE INTERNATIONAL EXPANSION

- 1980 First railway electrification contracts, for Renfe
- 1982 Launch of the first major project in Africa over the next seven years: Ivoiror (deployment of electricity networks in Ivory Coast)
- 1984 Electricity connection between Guatemala and El Salvador
- 1985 Stable implementation in the Dominican Republic
- 1986 First contracts in the facilities sector
- 1987 Commencement of operations in Honduras, another stable market of the future

## 1990-1999

DIVERSIFICATION AND FIRST INVESTMENT PROJECTS

- 1990 Implementation in Angola, Africa's first stable market
- 1993 Operations commence in Mexico
- 1995 Major hydroelectric project: Duqueco (Chile), 120 MW
- 1996 First environmental projects and addition of Hidroambiente to the Group
- 1997 Creation of the Enerfin subsidiary to invest in the wind power market
- 1998 Incorporation of the Uruguayan subsidiary: Monte Elecnor
- 1999 Growth in Brazil with Elecnor do Brasil

## 2000-2009

RENEWABLES EXPANSION, GROWTH OF CONCESSIONS AND FIRST SPACE SATELLITE

- 2001 Aerospace company Deimos Space joins Elecnor as the Group's future technology area
- 2002 First electricity transmission concession in Brazil
- 2004 Incorporation of Atersa, a company manufacturing solar photovoltaic systems
- 2006 Enerfin starts up Latin America's largest wind power plant to date, in Brazil
- 2008 The Elecnor Foundation is created on the Group's 50th anniversary
- 2009 Creation of Celeo, the Group's concessions company
- 2009 Launch of Europe's first earth observation satellite, Deimos-1, developed by Elecnor Deimos

## 2010-2017

THE BIRTH OF A TRULY GLOBAL CORPORATION

- 2010 First major award of a combined-cycle plant contract: Agua Prieta II (Mexico), 394 MW
- 2011 First acquisition of a US company: Belco Electric
- 2011 Work starts on North America's first wind power plant: L'Erable (Quebec, Canada)
- 2012 Elecnor moves into the UK market with the purchase of Scottish company IQA
- 2013 The Group's sales abroad exceed sales in Spain for the first time
- 2014 Launch of Deimos-2, the second earth observation satellite developed by the Group
- 2016 The Group's sales top EUR 2,000 million for the first time
- 2017 After 16 years as the most senior executive, Fernando Azaola hands over the chairmanship to Jaime Real de Asúa

# Elecnor today

## Two big businesses as a driver of growth

A wide range of activities which offer progress to the world and to people



Infrastructure Business



Concessions Business

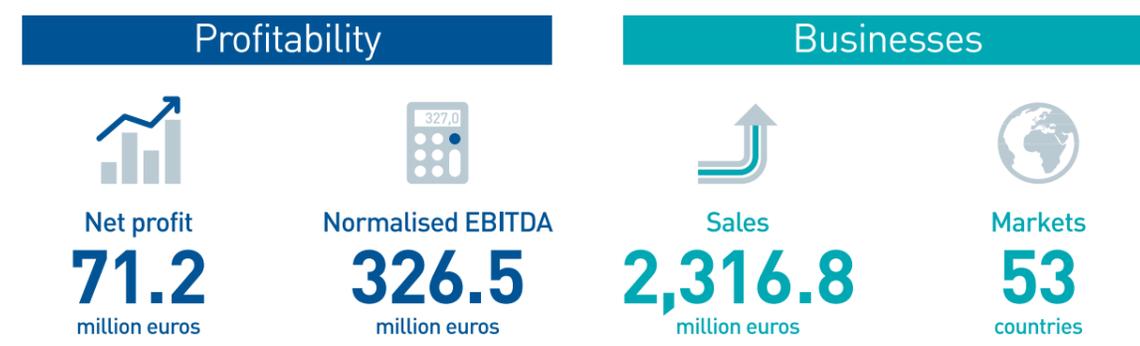
Hydroelectric plants

Solar photovoltaic

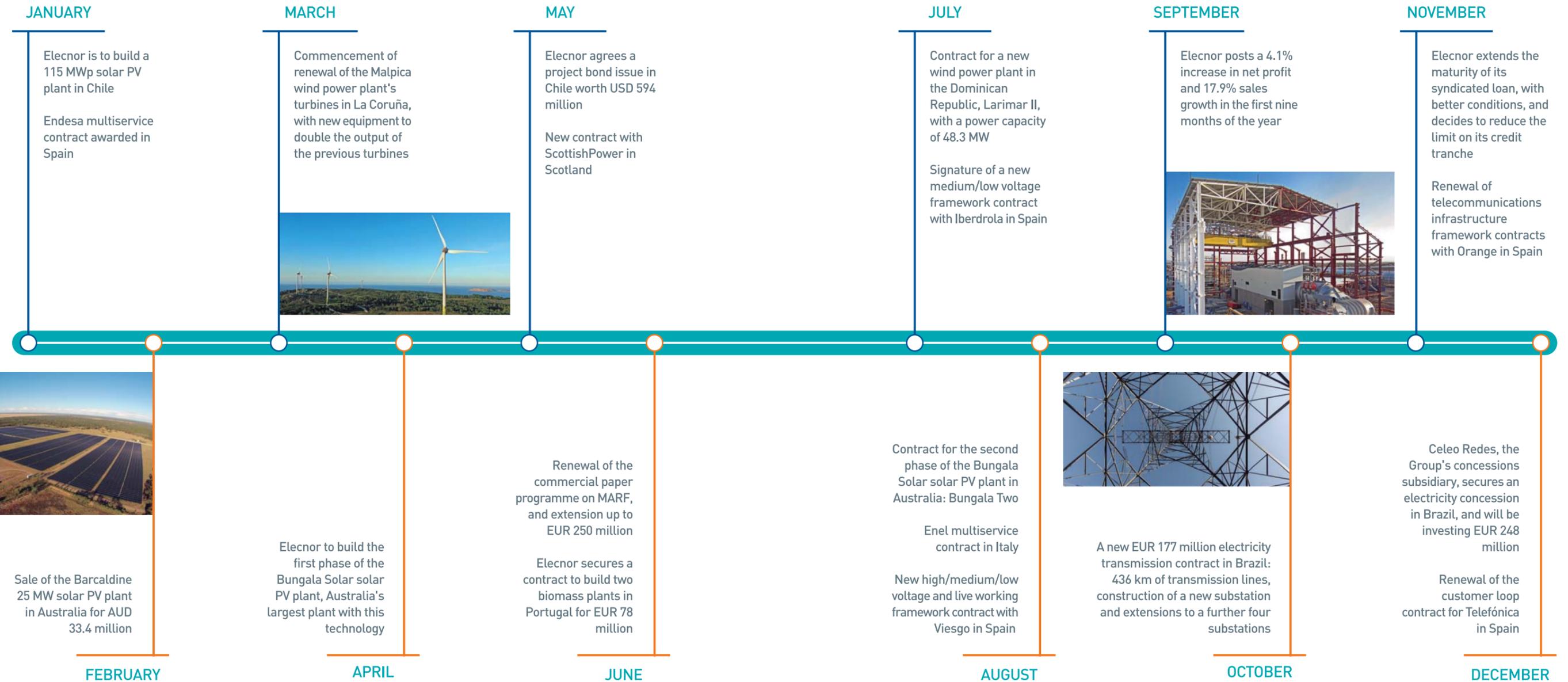


# Main figures for 2017

(G4-DMA)



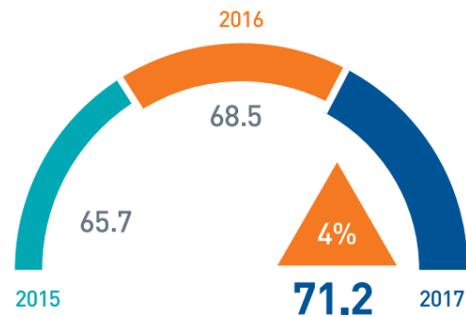
# Some of the major milestones in the year



# Steady growth (G4-9)

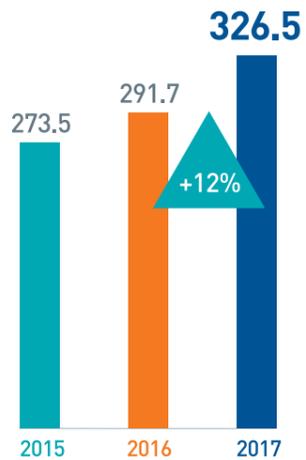
## NET PROFIT

Figures in millions of euros



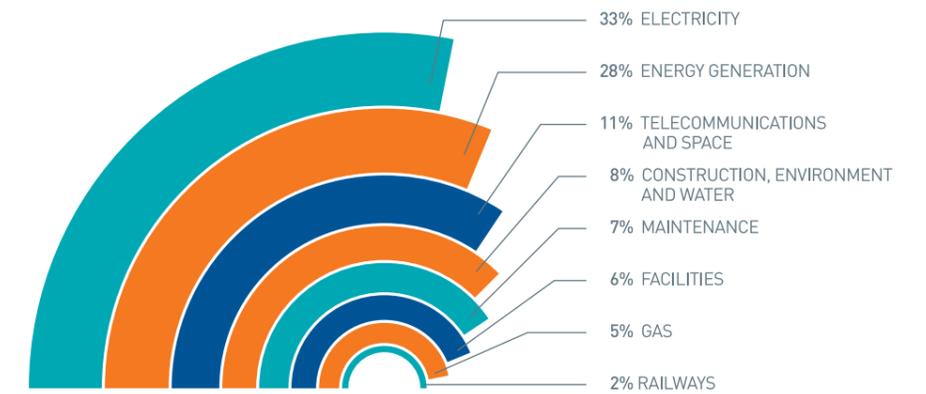
## NORMALISED EBITDA\*

Figures in millions of euros



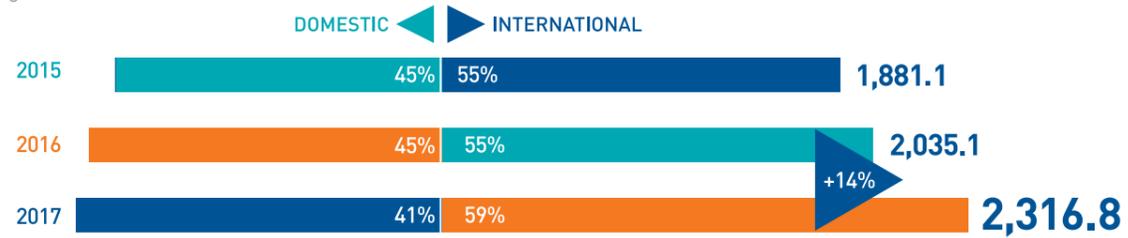
\*Excluding the impact of the application of IFRIC 12 on concessions in Brazil

## SALES BY ACTIVITIES



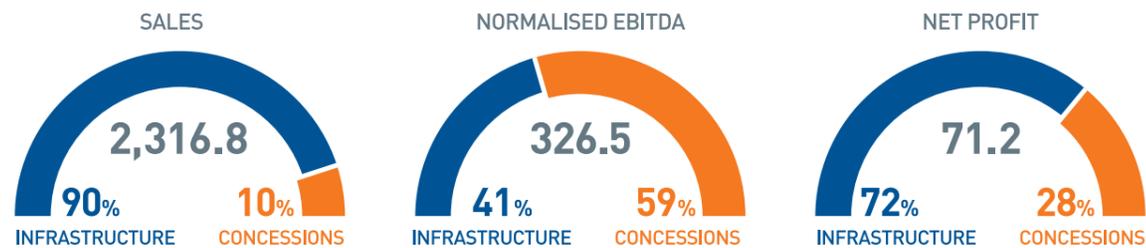
## SALES

Figures in millions of euros

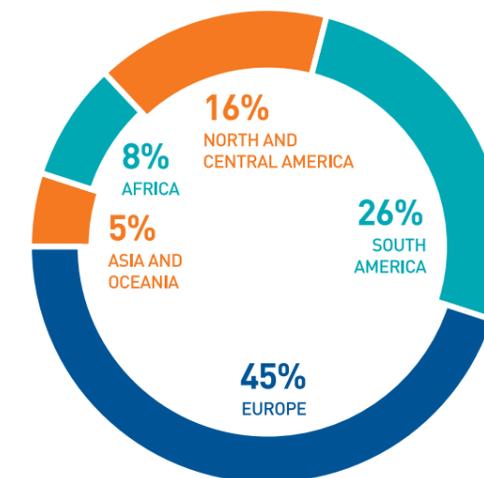


## KEY FIGURES BY BUSINESSES

Figures in millions of euros

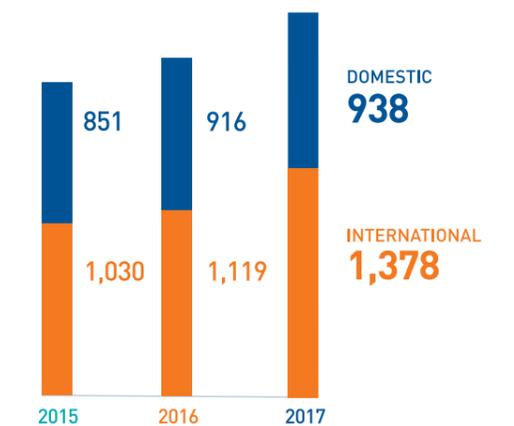


## SALES BY GEOGRAPHIC AREAS



## SALES BY MARKET

Figures in millions of euros



### CORPORATE NET DEBT

	2015	2016	2017
	280	272	223
Normalised EBITDA	273	292	327
EBITDA with recourse	113	120	148
EBITDA without recourse	160	171	179
Ratio of Debt/EBITDA with recourse + project dividend (21.7)	2.08	2.02	1.31

CHANGE 2015 - 2017 **-20%**



### NET FINANCIAL DEBT

	2015	2016	2017
	1,106	1,160	1,268
With recourse	280	272	223
Without recourse	826	888	1,045
Normalised EBITDA	273	292	327
Rate of debt/normalised EBITDA	4.1	4.0	3.9



A team of more than 13,000 people





# Operations in 53 countries (G4-6)

Elecnor's internationalisation process has been a constant since the very outset. It has been stepped up in the last decade, so that sales abroad now outstrip sales in Spain.

The decisive factors of Elecnor's steady international expansion are high-intensity persistent sales operations and cooperation with renowned partners in strategic alliances.

## The foreign market accounts for 59% of Group revenue

In 2017, Elecnor's international sales totalled EUR 1,378 million, up by 23% from EUR 1,119 million in 2016. This meant they represented the majority of its business for the fifth consecutive year, with 59% of the total.

In addition to Spain, the Group has built up a solid and stable presence in 15 other markets: These are Brazil, Venezuela, Angola, Mexico, the USA, the Dominican Republic, Uruguay, Argentina, Chile, the United Kingdom, Portugal, Italy, Ecuador, Honduras and Australia. Elecnor obtained sales in another 37 countries in 2017, with a total of 53 countries contributing to its revenue.

Furthermore, 81% of the total order book of EUR 2,161 million at year-end was accounted for by the international market. This percentage was EUR 1,746 million.



### 53

COUNTRIES CONTRIBUTED TO GROUP REVENUE IN 2017



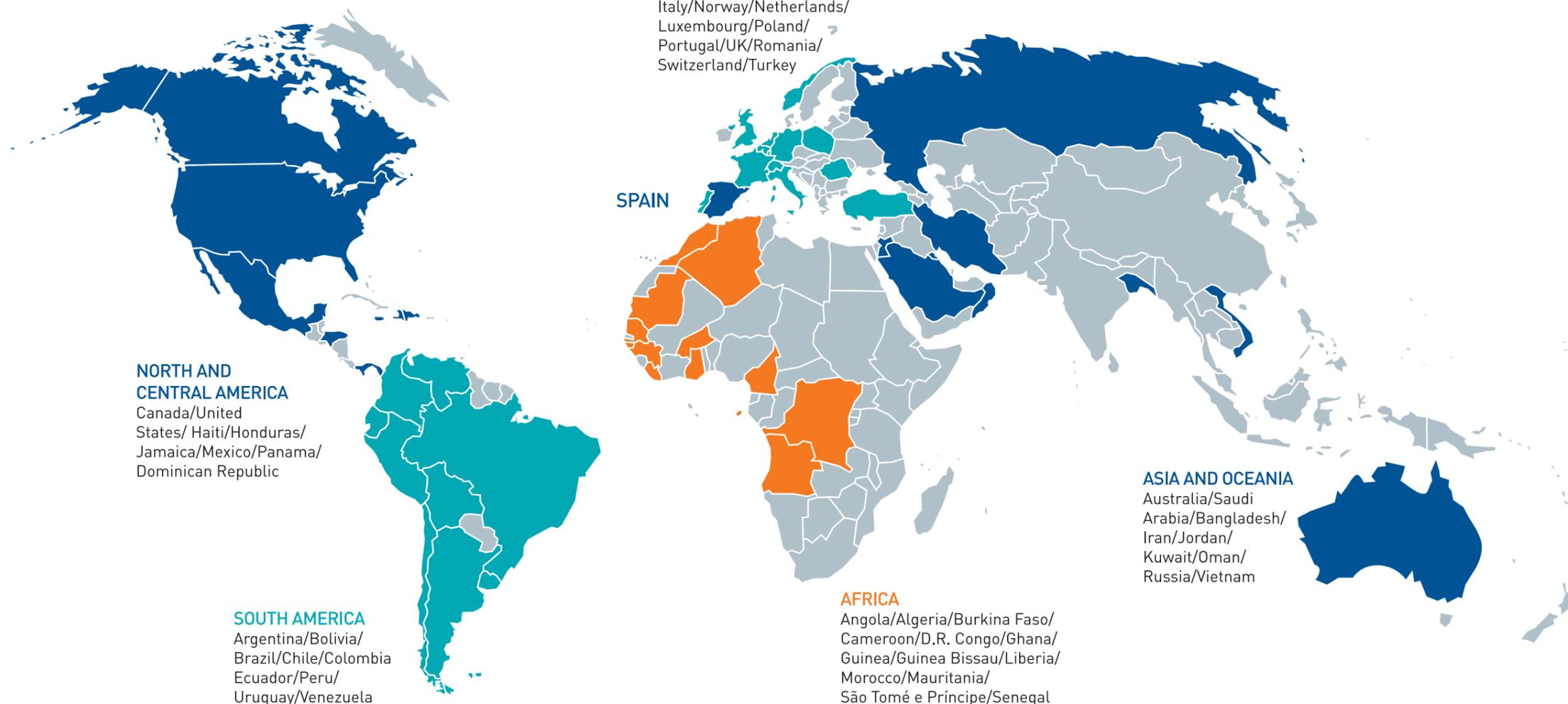
### 5,014

EMPLOYEES ABROAD (38% OF THE TOTAL HEADCOUNT)



### 16

COUNTRIES ARE NOW STABLE MARKETS FOR ELECNOR



# A solid corporate culture (G4-4)

Elecnor is one of the leading global corporations in project development, construction and operation through two major mutually-enriching business areas.

## Infrastructure

Geared towards undertaking engineering, construction and services projects, with a particular focus on the electricity, power generation, telecommunications and systems, facilities, gas, construction, maintenance, environmental, water, railway and space industries

Elecnor has several specialist subsidiaries with which it works in some of its activity segments, providing added value and end-to-end services for customers.



## Concessions

This covers the operation of services in the spheres of energy infrastructure and renewable energy. These are investments that enable Elecnor to undertake major projects end-to-end, generating revenue from their promotion, implementation, operation, maintenance and exploitation.

This business's principal companies are Enerfín, specialising in wind power projects, and Celeo, the subsidiary specialising in the operation of power transmission grids, gas pipelines, solar thermal plants and water treatment facilities.

(G4-EC2)



# Una sólida cultura corporativa (G4-56)



## MISSION

Elecnor's mission is to contribute to economic and technological progress, to social welfare and to sustainable development in the markets in which it operates, through all its activities. The Group intends to rise to the top of the market as a highly competitive company which is constantly growing and international in scope.

## TARGET

To be recognised for the quality of its projects, the value of its human team, social responsibility, commitment to customer service and technical and financial standing, and its values.

Elecnor provides a steady return for shareholders on their investment, commitment and safety to its customers, a sound environment for professional and personal development to its employees, and a positive contribution to society.

## VALUES

- Reliability
- Commitment and effort
- Customer focus
- Solvency
- Innovation



## Part of the solution

DEVELOPMENT OF INFRASTRUCTURES that improve people's standard of living

FIGHTING CLIMATE CHANGE through the use of renewable energies

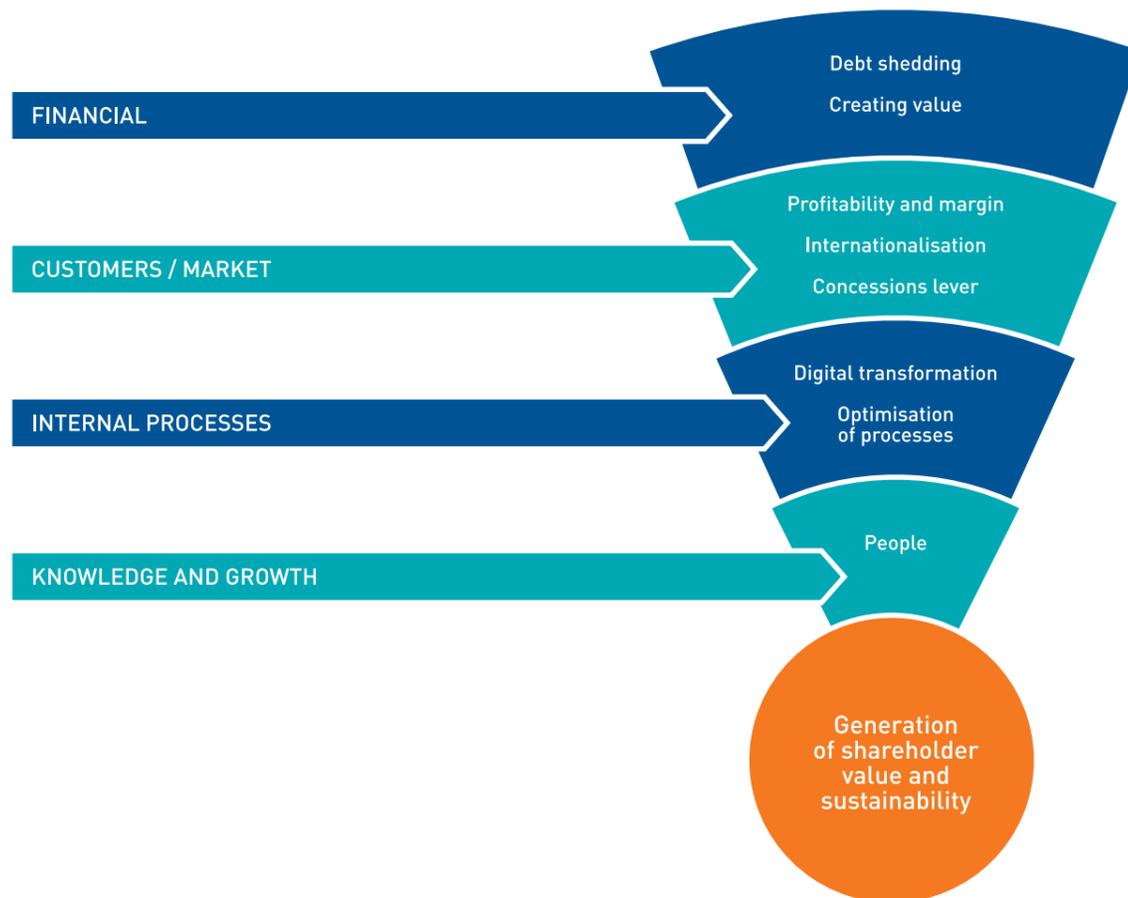
MANAGEMENT AND RE-USE of water

SOCIAL CONTRIBUTION through the Elecnor Foundation

# A strategy based on generating value <sup>(64-2)</sup>

At Elecnor, all business strategies and corporate policies strive to generate sustainable value for shareholders, customers, employees and society at large.

The main focuses of this strategic framework are:



# Elecnor in 2017





Building and facilities at the new cruise ship terminal in the Port of Barcelona

# Business trends [G4-8, G4-EC2]

## Infrastructure Business

Elecnor has the capacity to comprehensively manage any project.

The Group carries out viability studies, basic and technical engineering, construction and services, with a particular focus on electricity, power generation, telecoms and systems, installations, gas, construction, maintenance, the environment and water, railways and space.



## Concessions Business

Some years ago, Elecnor's experience in infrastructure construction and operation and its increasing financial wherewithal led the company to undertake investment projects in its areas of activity.

This area of business addresses the operation of services through investment in power transmission systems, wind and solar thermal power, and other strategic assets.



# Economic Environment

## CANADA

GDP growth: 1.7%, compared to 1.4% in 2016, percentages far removed from 2.9% in 2014

Reduction of the adverse effects generated by falling oil and gas prices

## SPAIN

GDP growth: 3,1%

Growth above 3% over three years

More than 600,000 jobs created

Record exports: EUR 277,000 million

Record tourism figures: 82 million visitors

Public procurement tenders: only 1.1% of GDP, vs. the historic average of 2.6%

## VENEZUELA

Falling GDP: 13.2%, meaning four years running of recession

Main reason: sharp fall in oil production, accounting for 90% of exports

## USA

GDP growth: 2.5%, compared to 1.6% in 2016

Very propitious financial conditions (tax cut for companies) and solid trust between businesses and consumers

## MEXICO

GDP growth: 2%, the lowest since 2014

Adverse impacts of earthquakes, hurricanes and uncertainty concerning the Free Trade Agreement with the US and Canada

## CHILE

GDP growth: 1.6%, unchanged since 2016, the lowest percentage since 2009

Backdrop of low private investment, mining output and public consumption

## BRAZIL

GDP growth: 1%, after a fall of 3.5% in 2015 and 2016

General recovery in all industrial sectors, investment and privatisation of public assets

## ANGOLA

GDP growth: 1.5%, compared to stagnation in 2016

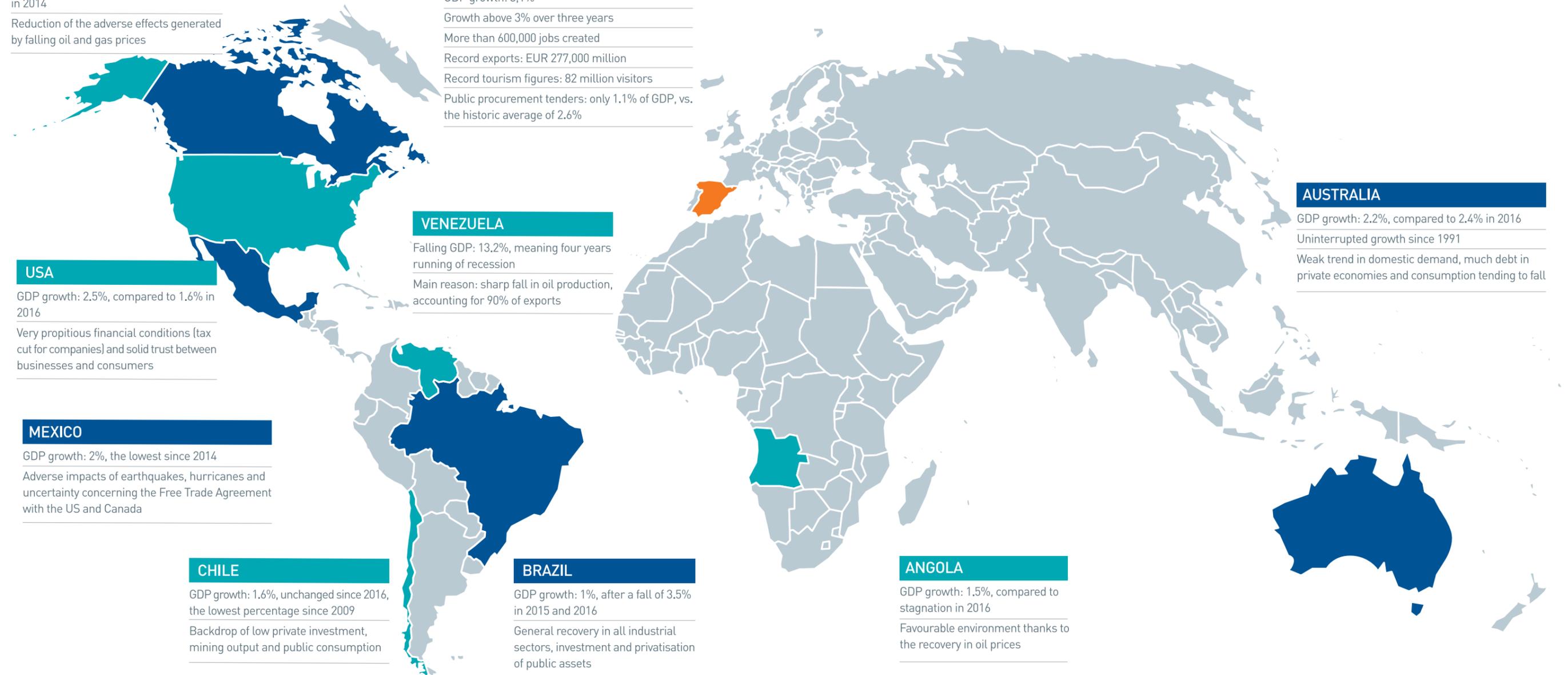
Favourable environment thanks to the recovery in oil prices

## AUSTRALIA

GDP growth: 2.2%, compared to 2.4% in 2016

Uninterrupted growth since 1991

Weak trend in domestic demand, much debt in private economies and consumption tending to fall



# Elecnor's sales up by 14%

Elecnor reported sales in 2017 of EUR 2,316.8 million, compared to EUR 2,035.1 million in 2016, an increase of 14%.

The breakdown of these figures shows that Infrastructure business sales were up by 12% to EUR 2,119 million. Meanwhile, the Concessions business climbed 10% to EUR 232 million.

In addition to this international performance, the Group's domestic Infrastructure business put in a strong showing thanks to the growing efficiency of its operations.

Growth drivers include a sound performance by Infrastructure business in markets abroad, in countries such as the US, for example, where the Group commenced operations more recently.

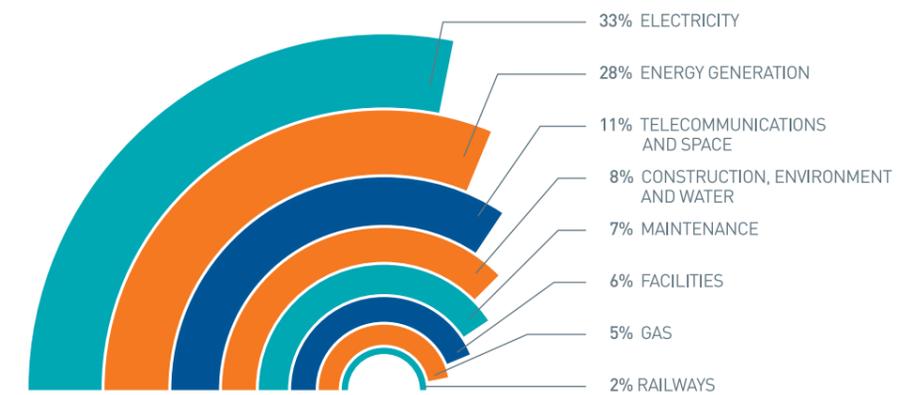
The international market - -- with sales in 53 countries in 2017 - accounted for 59% of total revenue, and the domestic market accounted for the remaining 41%.

## AREAS AND BUSINESSES

The contributions by Infrastructure and Concessions assets to the Group's sales in 2017 were as follows:

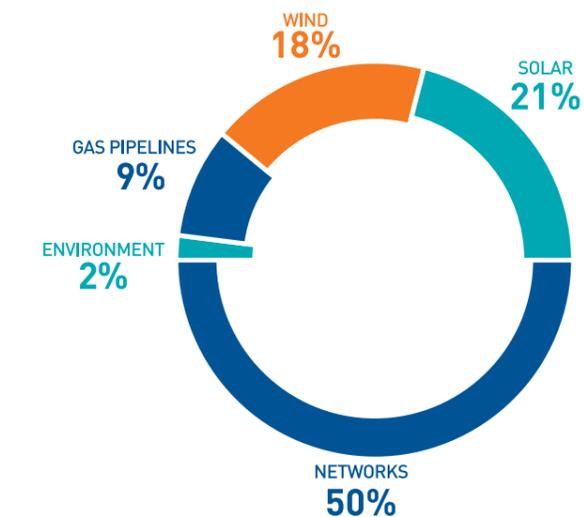
### INFRASTRUCTURE

Distribution of sales by activities



### CONCESSIONS

Distribution of assets managed by activities



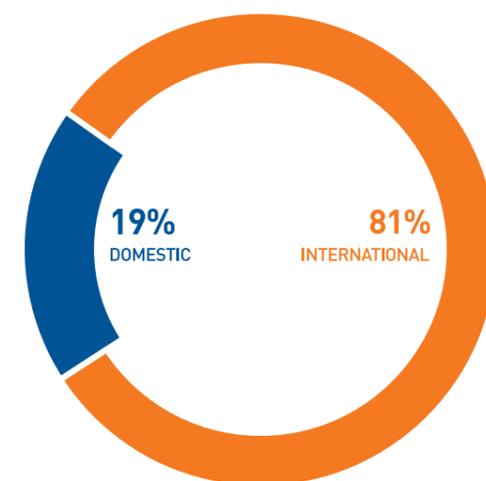
### SALES

Figures in millions of euros



The backlog at year-end 2017 stood at EUR 2,161 million. International orders accounted for EUR 1,746 million (81% of the total) of this amount, while domestic orders totalled EUR 414 million, the equivalent of 19% of the total.

### BACKLOG



# Contract milestones in 2017

## ANGOLA

Commencement of coordination and execution of the electromechanical assembly for the 2,073 MW Laúca hydroelectric plant, held to be the plant with the largest production capacity on which Elecnor has worked.

## AUSTRALIA

Contract for the first two phases of the Bungala Solar project, Bungala One and Bungala Two, two 137 MWp solar photovoltaic plants. Bungala Solar is the biggest PV project under construction in Australia, and the largest built by Elecnor using this power generation technology.

## BRAZIL

An electricity concession was awarded through subsidiary Celeo Redes, for construction, operation and maintenance of 414 km of transmission lines, construction of three new substations and extensions to another four substations, in which EUR 248 million will be invested. Elecnor will handle the turnkey contract (EPC) associated with this investment, in the amount of EUR 215 million.

Contract for the construction of 436 km of transmission lines, the construction of a substation and extensions to another four substations, in the amount of EUR 177 million.

## CHILE

Construction of a solar photovoltaic plant with an installed capacity of 115 MWp for USD 117.2 million, or approximately EUR 110.8 million.

## SPAIN

New framework contracts with Iberdrola, Endesa and Viesgo.

Renewal of the customer loop contract for Telefónica.

Telecommunications infrastructure framework contracts have also been renewed with Orange.

Execution of a project involving energy management, upgrade and maintenance of the public lighting system in Santander.

Repowering of the Malpica wind power plant in La Coruña, with 7 modern wind turbines with double the output of the previous turbines.

Execution and maintenance of the 9.2 MW Teguse I wind power plant in Lanzarote.

## JORDAN

Contract for the construction of an 86 MW wind power plant for the equivalent of EUR 131 million.

## LIBERIA

A new electricity transmission project for a 230 km 225 kV line between Yekepa and Buchanan on the power interconnection project linking Ivory Coast, Liberia, Sierra Leone and Guinea.

## OMAN

Contract for a full solar photovoltaic panel electricity generation facility. Power for the headquarters of Petroleum Development Oman (PDO), the country's main oil exploration and production company, will be generated by thousands of solar panels installed on the rooftops of its car parks.

## PORTUGAL

Contract for the construction of two biomass plants, for a total of EUR 78 million.

## DOMINICAN REPUBLIC

Turnkey construction project for the Larimar II wind power plant, valued at USD 89 million.



Hydroelectric plant  
Laúca (Angola)

# Infrastructure



## Electricity

Elecnor leads the Spanish market in distribution networks, transmission lines and transformer substations. As a benchmark player for the main electricity operators, it has been able to progressively and constantly enlarge its market and expand abroad.

### Activities

#### POWER TRANSMISSION

- 132 to 800 kV interconnection lines
- Maintenance work

#### ENERGY TRANSFORMATION

- Substations of up to 500 kV
- Maintenance work

#### POWER DISTRIBUTION

- Medium-voltage overhead power lines
- Medium-voltage underground power lines
- Transformer centres
- Any type of low-voltage power grids
- Live-line working
- Preventive and corrective maintenance
- Grid operation work

### 2017 CONTEXT

In general, Spain's electricity sector has been experiencing a surge, with clear indications of increased investment thanks to the regulator's new remuneration system. This investment cycle looks set to last until at least 2020.

In the distribution segment, energy transition to meet EU environmental targets by the year 2030 will require investment in Spanish systems of between EUR 29,000 million and EUR 34,000 million before that date, according to specialist surveys. Investment must be used to address the need to replace ageing facilities; assist relevant penetration by distributed generation, autoconsumption and electric cars; in addition to the implementation of other services, including demand management.

There are also growth opportunities in the development of the renewable plants (primarily wind and solar photovoltaic) auctioned off in Spain in 2016 and 2017, and expectations of a considerable increase in civil engineering projects associated with the plants, substations and feeder lines, mostly in 2018 and 2019.

In the longer run, electricity, which at the present time accounts for a quarter of Spain's energy demand, will assist with the expansion of sources of renewable energy, particularly wind and solar power. According to the latest prospective reports, by 2030 Spain will have secured 60% of its renewable energy mix, which entails intense development of the associated infrastructure.

### 2017 MILESTONES

#### SPAIN

- Renewal of the Endesa Generación framework contract for electrical maintenance of the Northwest Hydraulic Production Unit.
- Renewal of the framework electricity contract with Viesgo: low, medium and high voltage.
- Renewal of framework electricity contracts with EDP.
- Action by the Elecnor Brigades during storms and snowstorms in Galicia (for Gas Natural Fenosa), the Balearics (Endesa) or Levante (Iberdrola).
- For REE, line regularisation through the installation of augmentations for the Northwest and Northeast demarcations.
- 2,536 new lighting points added to the energy-efficiency public lighting contract portfolio, for a total of 203,652 at year-end.

#### UNITED KINGDOM

- ScottishPower: renewal of ongoing contracts in Scotland (Glasgow) and England (Liverpool) for another 4 years.
- SSE: new contract to provide electricity distribution services for this Scottish utility.
- SSE: new contract to provide contingency services for substation activities, internal mains, jointing and OHL.



Kristiansand substation (Norway)



Ribeirão Preto Line (Brazil), Celêo



#### USA

- Underground transmission activities for utilities (PSE&G), engineering firms (Black & Veatch) and cable manufacturers (Iljin and Prysmian).
- Framework contracts with Eversource.
- Lump sum projects with National Grid.

#### BRAZIL

- Completion of extension work on the 230 kV Jaurú electricity substation.
- First contract with a private customer (Equatorial, one of Brazil's largest power transmission and distribution companies), involving lines and substations in a transmission lot.

#### CHILE

- Completion of a contract to deploy conductors in an underground mine for Codelco.
- Completion and energisation of the evacuation project for the Cabo Leones I wind power plant for the EDF/Ibereólica consortium - 110 km of 220 kV transmission line and two 220 kV GIS incoming positions.
- Energisation of the Charrúa-Ancoa transmission line, dual circuit with stringing work on the first circuit, 500 kV and length 200 km, and extension work on both substations.
- In the field of public lighting energy efficiency, contracts to supply some 7,000 lighting points in the towns of Puente Alto and La Florida and continuation of maintenance of 16 towns across the country, with a total of approximately 135,000 lighting points.

#### MEXICO

- Two new projects with CFE: South Peninsular Substation (Phase 6) and 208 SLT 1722 Southern Distribution (Phase 3).
- BOP project with assembly of turbines for the San Matías wind power plant.
- Supply, assembly and start-up of the Tizimín wind plant's interconnection power infrastructures for Alarde.

#### CENTRAL AMERICA

- Honduras: completion of construction work on the La Entrada electricity substation.
- Honduras: Electricity BOP for the Chinchayote wind plant.
- Panama: Burunga electricity substation.

- Dominican Republic: expansion of the Southern Zone transmission system.
- Dominican Republic: 45 km Punta Catalina-Julio Sauri 345 kV transmission line.

#### URUGUAY

- Completion of the internal 30 kV network, the 150 kV evacuation substations and 25 km of 150 kV high-voltage transmission line at the Enercon wind power plant.
- Construction of the 150 kV Melob substation and the GIS substation in Punta del Este.
- 150 km 150 kV high-voltage Artigas-Rivera transmission line.
- 175 km 150 kV high-voltage Bonete-Young-Paisandú transmission line.



System associated with the Cambambe 2 hydroelectric plant (Angola)

#### ANGOLA

- Completion of construction of the 60 kV Dondo-Cassoalala transmission system for the new Cambambe 2 hydroelectric plant, providing access to electricity for a total of 15,000 people.
- Completion of construction of the 400 kV Cambutas-Catete power transmission line, which carries the power generated at the new Cambambe 2 plant to the country's capital, Luanda.

#### GAMBIA, GUINEA AND GUINEA BISSAU

- Construction of 11 225/30 kV substations for the Organisation de Mise en Valeur du Fleuve de Gambie (OMVG), created by Gambia, Guinea, Guinea Bissau and Senegal.

#### LIBERIA

- Construction of 230 km of 225 kV lines for the power interconnection project linking Ivory Coast, Liberia, Sierra Leone and Guinea. This project was carried out for Transco CLSG, a company created by the 4 countries.



## Power generation

Elecnor's diversification of its business over the last 20 years was particularly concentrated on large-scale complex power generation plants of much renown emerging in all 5 continents.

### Activities

Turnkey projects and operation and maintenance services for the following:

- Wind farms
- Solar PV plants
- Thermal power plants
- Combined-cycle power plants
- Hydroelectric power plants

The prices emerging from the auctions mark wind power as a fully mature and competitive technology, and also a key factor in terms of reducing energy prices on markets.

New life was breathed into the wind power sector in Spain in 2017, mainly thanks to the renewable energy auctions in May and July. Of the 8,000 MW awarded, 3,908 MW were accounted for by wind power (in addition to 500 MW in 2016), to be installed before December 2019.

Only 96 MW of wind power contracts were installed in Spain in 2017, of which 59 MW are located in the Canary Islands (known as the Canary Island "cupo" or quota), 18 MW in Zaragoza (auction rights), and a further 16.5 MW are accounted for by renewal of the Malpica wind farm (La Coruña), run by Elecnor's wind power subsidiary Enerfín.

The sector is also showing an increasing interest in PPAs as an energy sales instrument to make projects viable and obtain better financing conditions, while initially projects are now being deployed which only receive revenue from power sales to the market (pool).

### 2017 CONTEXT

#### WIND POWER



2017 was vastly compromised by the general implementation of the auction system for most of the major wind power markets, especially in countries where Elecnor has been operating for a considerable number of years. Within a few months tenders had emerged for bilateral long-term power purchase agreements (PPAs) in Mexico, Chile, Argentina - which has now consolidated its position as one of Latin America's largest markets today - and also Brazil.



## SOLAR PHOTOVOLTAIC

In global terms, 2017 saw a surge in the solar PV sector led by China, with over 50 GWp in new facilities built in the course of the year. This factor boosted investment by Asian manufacturers (China, India, Taiwan, Vietnam and Malaysia), which in turn pushed up the price of PV modules in the last quarter of the year.

The sector expanded in both emerging markets and developed markets, on the strength of greater competitiveness of PV systems with respect to other technologies.

Despite a Royal Decree on Autoconsumption penalising the sector in Spain, 2017 saw a significant increase in installed capacity to 135 MWp. This multiplied the 2016 figure by 2.7. The new power system is shared out among autoconsumption facilities, PV projects connected to the grid and registered as power producers, and non-grid facilities, particularly for agricultural usage and the electrification of rural areas.

Forecasts for the market in Spain are primarily linked to the outcome of renewable energy auctions in May and July 2017. Solar took 1,037 MW in the May auction, and 3,909 MW in July.



## SOLAR THERMAL

Worldwide solar thermal installed capacity topped 5 GW in 2017, the year in which China commenced execution of the first lot of 20 plants, with a total capacity of 1,349 MW, and began preparations for a second allocation of lots with a higher power output. The same phenomenon was observed in markets such as Dubai, Morocco, Chile and Australia. All these projects double the forecasts of total installed capacity by the year 2020, according to information published by employers' organisation "Termosolar".

The same source puts Spain's total production in 2017 at 5,347 GWh, showing a 5.5% increase compared to 2016 and an all-time record in terms of electricity production by plants.

According to REE data, however, up to November 2017 zero MW had been installed, making 2017 Spain's fourth consecutive year with no new solar thermal facilities.



## COMBINED-CYCLE POWER PLANTS

The alternative scenarios in the BP Energy Outlook 2018 survey for 2016-2040 show that renewable energies will continue to outperform combined cycle, and on the most conservative gas-coal mix scenario, gas will account for 65% of power at these plants, whereas coal will fall to 22%. On the most aggressive scenario, the disappearance of both fuels is a definite possibility, putting gas at 5% and coal at -5%.

Combined-cycle production in Spain rose by 32.2% in 2017 with respect to the previous year, according to REE data. The largest year-on-year increase of 58.9% was observed during the third quarter when, although coal-based production was down, combined-cycle production remained steady, partly due to the higher price of coal during the last months of the year, according to AleaSoft.



## HYDROELECTRIC POWER PLANTS

According to BP Energy Outlook 2018 forecasts, the annual sustained growth of world hydroelectric power up to the year 2030 has been estimated as 1.3%, averaging out at 61 TWh, and will be based on demand by developing economies. BP considers that, although this growth is much slower than in the years prior to 2016, the explanation must lie in higher consumption in China, which will contribute 16 TWh.

In Spain, the year 2017 showed the second smallest hydroelectric production of the last decade, with a total of 20,213 GWh, and lower figures are only found as far back as 2012 (19,180 GWh). This means that, with respect to 2016, production fell by 48.4%, and this has contributed considerably to price rises, according to REE.



Cambambe 2 hydroelectric plant (Angola)



## 2017 MILESTONES

### SPAIN

**Solar photovoltaic:** increasing supplies of solutions for solar pumps with 1.2 MWp installed.



### PORTUGAL

**Biomass:** construction contracts for two plants, powered by forest fuels. The plants will be located in Viseu and Fundão. Elecnor will be responsible for the design, engineering, supply of equipment, construction, installation and start-up of both plants, the evacuation line for the Fundão facility and the associated substation for the Viseu plant.

### UNITED KINGDOM

**Solar photovoltaic:** supply of 5 MWp of solar PV modules to the Zaragoza Group, specialists in development and production of turnkey engineering projects for land or roofs.

### MEXICO

**Combined-cycle:** execution of the Empalme II combined-cycle plant in the town of Empalme, Sonora state, with a guaranteed net power output of 791.1 MW. The project, which was 91% completed at year-end 2017, includes the design, engineering work, manufacture, supply of equipment and materials, construction, testing and commissioning of the gas-fired plant, ensuring safe, reliable and efficient operation.

### CHILE

**Solar photovoltaic:** construction of the Til Til plant, including engineering work, supply, assembly and start-up of the plant and the high-voltage evacuation infrastructure via a GIS substation connected to a high-voltage line.

### BOLIVIA

**Solar photovoltaic:** construction of the Uyuni and Yunchará plants, with a combined power output of 65 MW. This is the country's main clean energy project.

### DOMINICAN REPUBLIC

**Wind power:** engineering work, supply, construction and start-up of the Larimar II 48.3 MW wind farm.

### AUSTRALIA

**Solar photovoltaic:** execution of the first two phases of the Bungala Solar project (Bungala One and Bungala Two). The promoters are Enel Green Power and Dutch Infrastructure. The project in Port Augusta will be Australia's largest ongoing construction, and the largest Elecnor has built to date.

### ANGOLA

#### Hydroelectric plants:

Commencement of commercial operations at the 700 MW Cambambe 2 plant, one of the main infrastructures planned by the Angola government in its recent history, in which Elecnor took charge of its electromechanical equipment.

Coordination and execution of electromechanical assembly for the Laúca hydroelectric plant. When it has been commissioned, it will be the country's largest power production facility, with an output of 2,073 MW.

### JORDAN

**Wind power:** Al Rajef wind farm. The project includes the engineering work, construction of the wind farm, the medium-voltage power and communications network and the complete substation, including start-up. Promoted by Green Watts Renewable Energy, a subsidiary of Alcazar Energy, which deploys renewable energy generation projects across the Middle East.

### SENEGAL

**Solar photovoltaic:** supply, installation and start-up of a USD 15.9 million UN project to electrify 129 villages. Each of the villages has a hybrid facility, chiefly composed of PV modules, batteries, generators and inverters, to manage energy production by the generators and the PV panels and control battery charging and discharging.





## Gas

Elecnor has over thirty years' experience in nearly all areas of the gas value chain, from transport to industrial and household distribution. Its main markets are located in Spain, the US, Portugal, Brazil and Mexico.

### Activities

Elecnor holds contracts with the leading gas operators, with capacities for the following types of project:

- Regasification plants
- Gas transport
- Compressor stations
- Regulation and metering stations
- Gas distribution

### 2017 CONTEXT

The Spanish gas market expanded in 2017, mainly as a result of industrial recovery which was in turn driven by a phase of economic expansion. The domestic sector remained steady, with no major changes compared to previous years.

Among the various services Elecnor provides for gas operators, the main investment packages focus on maintaining their grid and domestic infrastructures in good condition.

From the point of view of the sector's business structure, the largest operators have either already been affected or are now being affected by purchases by investment funds. This is the case of Nedgia (formerly Gas Natural), Redexis Gas, Madrileña Red Gas or Nortegas (formerly Naturgas).

In the wake of this corporate restructuring, growth of network infrastructure is increasingly based on investments in accordance with the parameter of associated returns per customer obtained. In other words, investment is forthcoming provided the associated returns can be guaranteed.

In this situation, Elecnor maintained its strategy of upscaling presence with all national gas distributors with services hitherto not provided for them. Work also continued on greater penetration of network and domestic infrastructure operations.

In Brazil the oil & gas sector accounts for almost 10% of GDP, but it is still suffering the effects of the Petrobras crisis. Elecnor has a relatively good positioning in terms of gas pipelines, and has signed and implemented a full EPC contract with ENEVA.

Meanwhile, in Mexico, a country undergoing a full-scale transformation amid the energy reform introduced by the government, Elecnor has been hard at work on operation and maintenance of ducts, SCADA systems and gas conditioning systems.



Gas channelling and services in Queens, New York (United States). Elecnor Hawkeye



## 2017 MILESTONES

### SPAIN

#### NEDGIA (FORMERLY GAS NATURAL)

- Construction of new piping and polyethylene/steel connections and construction of new incoming gas facilities.
- Pipeline maintenance services.
- Gas distribution system maintenance.
- Emergency callout operations.
- Periodic inspection of incoming gas facilities.
- Continuation of commercial activity for commissioning and new routings, bringing in 3,500 new supply points.

#### GAS EXTREMADURA

- Continuation of the main contract for construction of new lines and maintenance of networks and connections.

#### MADRILEÑA RED DE GAS

- Construction of new piping and polyethylene/steel connections and construction of new incoming gas facilities.
- Pipeline and maintenance services.
- Maintenance service for distribution networks and associated components.
- Service for maintenance of teleinformation equipment for regulation and metering stations.



### ENAGÁS

- National consolidation of maintenance services for power lines and transformer centres for the basic gas pipeline network.

#### EDP/NATURGAS

- Development and consolidation of various framework contracts.
- Consolidation of the 'Funciona-Gas' service in Navarra and La Rioja to provide a direct service for gas end users: registration, regular inspections, home technical assistance etc.

#### REDEXIS GAS

- Consolidation of the framework contract in Almería (city of Almería and towns in the province).
- Local contracts: channelling and marketing in Medina Sidonia (Cádiz), antenna and channelling in Cuevas de Almanzora (Almería), supply and assembly of LNG plant in Yepes (Toledo) and elimination of confined spaces in the Ávila regulation and metering station.

### CLH

- Extension to CPM1 maintenance framework contract for low-voltage facilities.
- Contract for the new hydrant system at the Zaragoza air base.



### BRAZIL

- In Maranhão State, design and construction of 2 clusters, 22 km of gas pipeline and extension to EPGVB (Gavio Branco production station) for ENEVA.
- In São Paulo State, framework contract with Gas Brasileiro for polyethylene networks: installation of 23,215 m of PE pipes for distribution networks of various diameters, installation of 56 valves in the network, and 292 PE connections.
- For Gas Brasileiro, completion of the 20 km gas pipeline between Lençóis Paulista and Igarapu do Tietê, in São Paulo State.



### USA

- In 2017 Elecnor's US subsidiary Hawkeye consolidated its status as a main contractor for the National Grid in New York state, and was awarded a large volume of work on channelling and regulation stations.



Gas pipeline in Gijón (Asturias)



Sea surveillance system (Cameroon)



# Telecommunications

Ecnor has over 40 years' experience in telecommunications infrastructure, covering the complete life cycle from specifications and design to operation and maintenance.

## Activities

- Telecommunications infrastructure
- Systems and networks
- Security systems
- Infrastructure automation and control
- Smart cities
- Industrial automation

## 2017 CONTEXT

The sector continued its positive trajectory in Spain in 2017, specifically in terms of Telecommunications Infrastructure.

Fixed broadband lines topped 14.35 million. Fixed telephone lines totalled 19.2 million, while mobile lines totalled 52 million, with annual growth of 0.85% and 1.7% respectively.

Fibre to the home (FTTH) continues to drive broadband: a further 1.7 million lines were added, to produce a total of 6.6 million at year-end. ADSL technology, meanwhile, lost 1.2 million lines.

There was a total of 14,354,177 lines at year-end 2017, in the proportion of 30.9 lines for every 100 inhabitants, compared to 29.7 at the end of 2016.

## 2017 MILESTONES

### ENGINEERING ON THE FIXED-ACCESS NETWORK

- Contract for engineering work and technical assistance on the Vodafone fixed HFC (Hybrid Fibre Coaxial) network.
- Engineering work on the fixed FTTH (Fibre to the Home) network for Telefónica, Orange and Masmóvil.
- FTTH network engineering for industrial complexes in the Basque Country, where Euskaltel has decided to provide broadband services.

### ENGINEERING ON THE MOBILE-ACCESS NETWORK



- Through Huawei and Nokia, engineering services on the radio access network, offering capacities for the design of radio and transmission, selection and engineering for the infrastructure and components on the mobile network, definition of the integration parameters for these networks, monitoring and adjustments and the drive-tests required.

## BUILDING AND MAINTENANCE OF FIXED-ACCESS NETWORKS

- 1,500,000 FTTH household units - fibre optic networks for Telefónica, Orange and Masmóvil.
- 500,000 FTTH customer registrations for Telefónica and Orange.

## BUILDING AND MAINTENANCE OF MOBILE-ACCESS NETWORKS



- Over 2,000 4G nodes installed.
- Over 6,000 4G nodes maintained.
- More than 8,000 4G nodes of different operators activated on the 800 MHz frequency, released on 31 March 2015 by Royal Decree-Law 17/2014. This project, carried out under commercial brand name Ilega800, had over 24,000 nodes activated at year-end.
- Activity installing equipment for manufacturers of telecom operators' main network equipment contracts.
- Work required to enhance 2G/3G coverage at certain locations on the Telefónica network with repeaters from Observa Telecom.
- 4G facilities for Euronova, a telecommunications operator taking high-speed Internet to locations where others do not, leading strategic markets such as satellite, WIFI or fixed 4G.
- Maintenance of Telefónica's mobile access network in Aragón, Cantabria, Catalonia, La Rioja, Navarra and the Basque Country.



### SERVICES TO OPERATORS SHARING TELECOMMUNICATIONS INFRASTRUCTURES

- Contracts with Cellnex and Telxius for development and maintenance of their respective infrastructures, with activities such as the installation of new lattice towers and tube towers, reinforcement work on existing towers or adaptation of antenna supporting structures.

### SERVICES FOR SMALL OPERATORS AND PUBLIC AUTHORITIES

- British Telecom (BT): framework contract in Andalusia and Extremadura involving pipeline work and construction of infrastructures for customer fibre access.
- Ufinet: fibre optic network construction work for Ufinet, a neutral fibre optic services operator in Toro (Zamora).

- Correos Telecom: services required to guarantee operation and end-to-end maintenance of the infrastructures that comprise its telecommunications infrastructure network.
- Gitpa (Asturias Public Telecommunications Infrastructure Management Company): connection contract for the FTTH service in certain districts of this region.
- Nasertic: fibre optic network construction projects for this company forming part of Corporación Pública Empresarial Navarra, an instrumental company operated by the regional government of Navarra.
- Ministry of Defence: contract to supply a fibre optic telecommunications network for the Integral Defence Information Infrastructure in the Community of Madrid. This project will give all bodies, units (ships, facilities, aircraft or vehicles) and users of the department proper safe access to Defence information, from any geographic location, at any time.



## Railways

Elecnor has played a consistent role in the rail market over the last 25 years and has been prominent in the deployment of the Spanish network's modern infrastructure, in particular the high-speed network.

### Activities

The company's capabilities in this area cover the following activities:

- Catenaries
- Substations
- Signalling and interlocking
- Communications



Substations and overhead power line on the Olmedo-Pedralba high-speed rail route (Zamora)

### 2017 CONTEXT

In recent years public investment in rail infrastructure and other budget items earmarked for the upgrade and maintenance of existing rail lines in Spain have been reduced to almost zero.

The dearth of tenders has also caused prices to plunge, and project margins have been eroded so much that tenders have been made at a loss and very low tenders have been rejected. This situation ought to change after March 2018 following the introduction of the new Law on Public Procurement Contracts (LCSP), which will give priority to bids with the best quality-price ratio.



Electrification of the Madrid-Levante high-speed line. Torrente-Xàtiva (Valencia)



After several years of this sluggishness in the Spanish market, Elecnor has managed to maintain its market share of between 15% and 18% of the total volume tendered, and has adapted its resources to current activities.

Some years ago the company also homed in on globalisation as a key part of strategy, and made a start on drawing up a master plan for foreign operations. This entailed an analysis of markets and Group capacities, a search for the right opportunities and striking partnerships with companies operating in the sector to undertake major projects involving a range of activities: infrastructure, signalling, operation and design, among others.

On the international front, Elecnor is closely examining opportunities in some particularly dynamic markets such as Argentina, Greece, Lithuania, Norway and Portugal. It also has its eye on two major projects: the high-speed project in California (USHSR) and the high-speed project in the UK (HS2).

## World markets are a decisive factor in driving the growth of rail business



### 2017 MILESTONES

#### SPAIN

- Design of the overhead contact line and associated systems for the high-speed rail connection between the Mediterranean Corridor and Madrid-Barcelona-French border.
- Installation of a rigid catenary on Line 5 between the Canillejas and Casa de Campo stations for Metro de Madrid.
- EPC for electrification of the Torrente-Xàtiva high-speed line.
- PPP Olmedo-Zamora-Pedralba: execution and maintenance of the power facilities on the high-speed section.
- Comprehensive management of the underground civil protection facilities in Córdoba, the Abdalajis tunnels and underground facilities in Málaga on the Córdoba-Málaga high-speed line.

#### NORWAY

- Design and construction of the rail systems for the new twin high-speed train tunnels between Oslo and Ski.

#### ALGERIA

- Infrastructure and electrification of the tram system in Ouargla, some 700 km from the capital Algiers. This is a 12.6 km routing between the old part of the city and the university district in the suburbs.



# Maintenance

Elecnor provides customised solutions for technical, commercial and ancillary services as part of public electricity, communications, gas, water and facilities services. This means it can guarantee global flexible scope for its customers, ensuring the best possible operation of facilities and processes in hospitals, business parks, shopping centres, office buildings, town halls, airports, thermal power plants, nuclear power plants, wind farms, solar plants, factories and universities, among others.

## Activities

At Elecnor, Maintenance is a comprehensive service with a global flexible scope, in areas such as:

- Technical/legal advisory
- Conductive
- Corrective
- 24-hour service

## 2017 CONTEXT

The most dynamism in Maintenance activities is still to be found in the industry and energy segments, a trend driven by an increase in this kind of activity and by the greater need for continuous improvement and optimisation of processes at these facilities.

The sector is also being driven by the surge in services in connection with energy efficiency, as the result of new regulations and the enlargement of government aid programmes to fund projects.

In terms of the competitive conditions in which these activities are carried out, price is still a key issue in the contracts awarded, although service quality is expected to gain importance as a decisive factor.



## 2017 MILESTONES

### AUTOMOTIVE SECTOR



Elecnor works with leading automotive and auxiliary companies in Spain and Portugal, including Nissan-Renault, the Volkswagen Group, PSA, Iveco and Ford.

### PHARMACEUTICAL AND HEALTHCARE



Elecnor provides services for groups such as Quirón and Vithas (technical-regulatory and legionnaires' disease maintenance in all their hospitals), Clínica de Navarra university hospital, Bayer and Roses.

### INDUSTRIAL SECTOR



Elecnor is tasked with electromechanical maintenance (steam generators, cold rooms and electricity) and stockage control and warehousing of spares at pharmaceutical company Rovi's plants in Madrid. Bosch, Airbus, Acerinox and Arcelor are also customers.

### TELECOMMUNICATIONS SECTOR



Multi-service contract in Telefónica buildings and property works, at the request of the operator all over Spain. Services are also provided for Vodafone and Orange.

### AIRPORT SECTOR



Maintenance of the Public Address System across AENA's entire network of airports, while airfield, low-voltage facility and terminal building maintenance services etc. were also provided.

### BANKING AND INSURANCE



Leading customers include BBVA, Liberbank, La Caixa, Bankia, Mapfre and Asepeyo. For La Caixa, Elecnor provides end-to-end maintenance for its branches in Galicia, Asturias, the Basque Country, Castilla y León, Extremadura and Castilla-La Mancha.

### HOTEL AND REAL ESTATE SECTOR



Work at CBRE (end-to-end maintenance of various properties in Madrid), NH, Meliá, Metrovacesa, Unibail and Rodamco. Services are also provided for the Iberdrola Tower in Bilbao and the Picasso Tower in Madrid.

### COMMERCIAL PREMISES AND HYPERMARKETS



Especially contracts for businesses with multiple establishments, such as C&A, Día and Mercadona.

### CHEMICAL AND PETROCHEMICAL SECTOR



Repsol, Cepsa, Galp, Air Liquide and CLH are some of the customers operating in this sector.



# Construction

Elecnor specialises in both residential and non-residential construction projects, with a focus on end-to-end management. As it increases its footprint in international markets, the Group maintains a solid presence in Spain, with multiple projects in, inter alia, the hotel, logistics, hospital, financial and residential housing sectors.

## Activities

### CIVIL AND INDUSTRIAL ENGINEERING PROJECTS

- Concrete and metallic structures
- Special foundations, pipelines with non-dig technology and excavation
- Urban development, services networks, highways and site clearing
- Water works and environmental work

### BUILDING

- Rehabilitation work
- Rehabilitation of buildings
- Installations, outfitting and equipment
- Ornamental lighting
- Prefabricated products

## 2017 CONTEXT

Spain's construction sector has been on the up and up since 2015, and this trend looks set to continue until the year 2020 with average increases of 3.5%.

By segments, residential construction, although it has not yet regained the levels observed prior to the collapse of the property bubble, has attained a certain amount of equilibrium, thanks to adaptation by market players and the emergence of demand niches to justify new development projects. This has generated sufficient inertia for Spain to offset the effects of slower demand in Catalonia. Growth will nevertheless continue, albeit at an increasingly slower pace: the 14% growth observed in 2017 will fall to 5% by 2020.

The prospects for non-residential are more uncertain. This is because the post-crisis recovery process commenced at a later date, and was less intense than in the housing sector.

Finally, civil engineering is experiencing a period of minimum public construction, as the result of the deficit adjustment process which has been ongoing for years. The last resort would appear to be localised construction projects, which are now beginning to take off ahead of the 2019 municipal elections.

## 2017 MILESTONES

### SPAIN

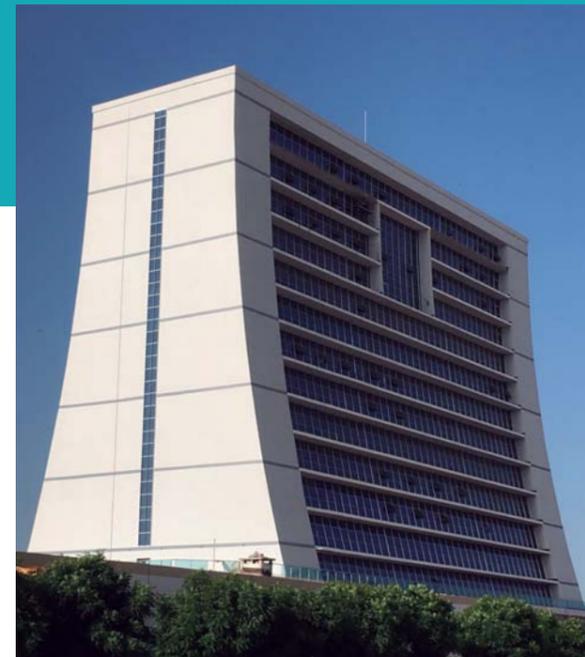
- New cruise ship terminal in Barcelona port.
- New offices and new production plant for Griffith Food (Valls, Tarragona).
- New production plant and offices for Coty (Granollers, Barcelona).
- Reform work on the Mapfre Tower (Barcelona).
- Rehabilitation work at Ca l'Alíer (Barcelona).
- Work on Town Hall in Tossa de Mar (Girona).
- New production plant and office extension work for Pikolín (Zaragoza).

### PANAMA

- Construction as part of a joint temporary merger with Acciona of the new 600-bed David Hospital Complex in Panama City.
- Construction of new areas for external consultancy, emergency services and parking lots at the Chepo Regional Hospital.
- Construction of the new Dr. Roberto Ramírez de Diego Polyclinic in Chitre (Herrera province), at the former location of the old El Vigía Hospital.

### HAITI

- Reconstruction of the Port-au-Prince University Hospital in the capital, destroyed by the huge earthquake on 12 January 2010. The complex has 10 buildings, 9 of which are used for hospital activities, and 1 for logistics.



Construction of the R+15 building (Mauritania)



# Environment and Water

The Group provides specialist environment and water infrastructure services through Elecnor and its subsidiaries Audeca and Hidroambiente. Spain is the largest market for all three, although they also have many foreign operations and work on an increasing number of major projects.



Olvega drinking water purification system (Soria)

## Activities

### ENVIRONMENT

- Environmental services: waste collection, street cleaning, gardening and cleaning of buildings, among others.
- Forestry work: preventing and putting out fires, plantations, construction of paths and roads etc.
- Channelling, cleaning and restoration work on rivers and river banks.
- Construction, operation and sealing of waste dumps.
- Construction and operation of waste plants: classification, construction and demolition, gasification and leachates.

### WATER

- Construction and operation of water treatment plants: drinking water purification systems, wastewater treatment systems and desalination plants.
- Energy: water plants for cooling systems and services specialising in nuclear, coal, combined-cycle and solar thermal plants.
- Petrochemical: plants to treat waste containing hydrocarbons or organic products from chemical processing procedures. Redesign of refinery waste processes, elimination of odours or tertiary treatment for re-use of water.

## 2017 CONTEXT

The Group's environment and water services rely heavily on investment by public administrations, whose budgets for the Spanish market have been cut drastically in recent years.

2017 showed a better performance in this regard, and perhaps a change in the trend compared to 2015 and 2016. The EUR 12,847 million used by the various authorities in the course of the year outstripped the 2016 figure by 37.8%, a figure which was more or less similar to 2015.

Recovery was, however, mainly based on tenders by local and regional governments, whereas tenders issued by the central government only increased by 23% compared to 2016.

One of the Group's key areas of activity was a boost to services, mainly landscaping work tendered by local authorities. Much of the work also featured construction and operation of water treatment plants.

Looking ahead to the future, one of the main ongoing opportunities is the investment package for sanitation and water purification on the 2016-2021 Horizon Programme, with EUR 5,200 million to be furnished by the central government (60%) and the regional governments (40%).

## 2017 MILESTONES

### SPAIN

- Conservation and management of Sierra de Guadarrama National Park in Madrid.
- New wastewater treatment system at Lanzarote airport (Canary Islands).
- Construction of electricity connections and improvements to the Valquemada wastewater treatment system and the La Estación wastewater treatment system (Madrid).
- Replacement and improvement work on sand filters in the Arlanzón drinking water purification system for the local water company in Burgos.
- Treatment of wastewater from the River Urederra course (Navarra).
- Execution and start-up of outlet facility and wastewater treatment system at Laguna de Negrillos (León), with zero emissions.
- Operation, conservation and maintenance for the Casares de Arbás dam (León).
- Comprehensive forest firefighting system from several operations bases in Castilla y León.
- Management of the drinking water supply system for the North Ávila provincial water consortium.
- Supply, installation and maintenance of underground solid urban waste container facilities in Gijón (Asturias).

### MEXICO

- Water plants for several of the combined-cycle projects ongoing in Mexico: Empalme 1, Empalme 2 and Tula, among others.
- Water treatment plant for Pemex Group company Agro Nitrogenados, at a factory producing urea-based fertilisers.

### ALGERIA

- Water plant for steel company AQS at its plant in the Bellara industrial complex in north-east Algeria, approximately 314 km from the capital, Algiers.





## Facilities

Elecnor is now widely acknowledged for its Facilities, with specialist teams working on a comprehensive offer of services which include design, start-up and subsequent operation and maintenance. Some of these are facilities for landmark buildings, cultural and leisure centres, airport terminals, railways, industrial plants and buildings of cultural interest and heritage sites.

### Activities

- Electricity
- HVAC
- Fire protection
- Ventilation
- Management systems
- Security
- PA systems
- Telecommunications
- Plumbing and sanitation



Facilities at the San Antonio Market (Barcelona)

### 2017 CONTEXT

Facilities business is closely connected to the construction sector, which has been expanding in Spain since 2015, a trend which looks set to continue up to the year 2020 with average increases of 3.5%.

As mentioned in the Construction section, by segments, residential construction has regained a certain amount of equilibrium, thanks to adaptation by market players and the emergence of demand niches to justify new development projects. Expectations are that growth will continue, albeit at an increasingly slower pace: the 14% growth observed in 2017 will fall to 5% by 2020.

The prospects for non-residential are more uncertain, because the post-crisis recovery process commenced at a later date, and was less intense than in the housing sector.

### 2017 MILESTONES

#### SPAIN

##### Airport sector

- Primary maintenance services at Adolfo Suárez Madrid Barajas airport.
- Other airports: Barcelona-El Prat, Santiago, Santander, Bilbao, Palma and Salamanca.



##### Defence sector

- Initial contracts.
- Prime example: supply of a fibre optic telecommunications network for the Ministry of Defence's Integral Information Infrastructure.



##### Refurbishment and renovation sector

- Renovation work on the 111 Banco Mare Nostrum branches all over Spain.
- New facility for the TV3 production centre in Sant Joan Despí (Barcelona).
- Extension to the Tordera school (Barcelona) with a modular structure.



##### Sector of energy efficiency for buildings

- Contracts in connection with energy efficiency improvements to large infrastructures.



#### ALGERIA

- BOP project on the steelworks complex for Algerian Qatari Steel (AQS) in the Bellara industrial complex in north-east Algeria, approximately 314 km from the capital Algiers. Elecnor's tasks included the following:

- Basic services (drainage, sewage, electricity, racks etc.).
- Roads and railway.
- Buildings (warehouse, workshops, laboratories, offices, cafeterias, social areas and mosque).
- Lighting.
- Communications and security.

- Plant producing nitrogen, oxygen and argon using an air separation unit cryogenic process at this complex in Algeria:

- Logistics and customs arrangements for all electromechanical equipment.
- Full electromechanical assembly.
- Electromechanical termination acceptance tests.



## Space

Elecnor's technological arm, Elecnor Deimos, specialises in engineering, designing and developing solutions and integrating systems in the aerospace, information systems and telecommunications network sectors.

Elecnor Deimos is currently one of the leading players in the European aerospace industry, with direct operations in Spain, the United Kingdom, Portugal, Romania and Italy, and the leading developer of Earth observation and space surveillance systems.

### Activities

- Space
- Aeronautics
- Maritime
- Transport
- Information and communications technologies
- Industry and utilities

### 2017 CONTEXT

The Spanish space engineering market in 2017 continued in the same vein as in 2016, with a large increase in Spain's contribution to the budget of the European Space Agency (ESA), which had dwindled considerably during the long period of economic crisis.

Prospects for the years ahead are now favourable, as Spain will be hosting the next ESA Ministerial Conference in 2019, and will therefore be moving the main space programmes forward to make the conference a success and enable the greatest possible number of projects to be undertaken.

Another positive forecast is that, as in previous years, the EU continues to consolidate as a major player, not only through its funding of extensive space programmes such as Galileo, Copernicus and Horizon 2020 (which has a specific line of funding for space R+D+i), but also on the new SST space waste surveillance programme.

The EU's SST programme is most important to Elecnor Deimos, as it is now the main customer for the space surveillance telescopes the company set up at Puerto de Niefta (Ciudad Real), managed remotely from its facilities in Puertollano.

Elecnor Deimos marked out the following priorities in 2017:

- Continuation of activities in all ESA strategic lines.
- Increased activity on commercial space programmes outside Europe.
- Continuation of international expansion with the commencement of operations in Italy.
- Priority for satellite applications for Earth observation and navigation.

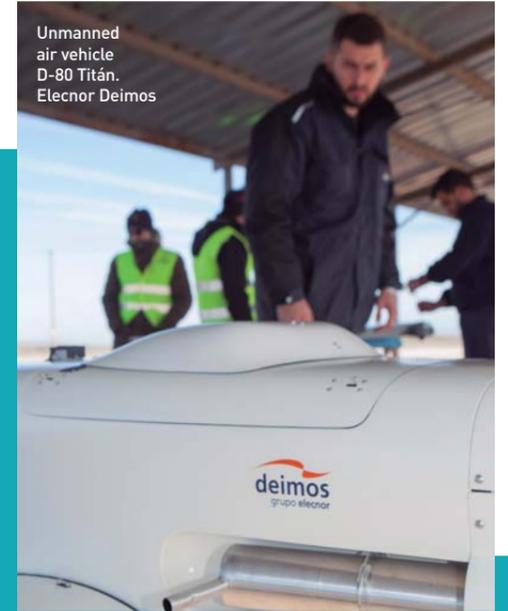
### 2017 MILESTONES

#### ESA

- On the space transport programme, Elecnor Deimos continues its major projects for the successor of the IXV vehicle, known as the Space Rider programme.
- It is one of the main contributors to design and development of European space missions to Mars. On the second ExoMars mission, Elecnor Deimos forms part of the project development core team alongside Thales Alenia Space in Italy.
- On the Galileo programme, Elecnor Deimos is still developing three of the major subsystems (MGF, MSF and RDG), and is also playing a central role in the definition of the future Galileo programme (EGEP). One important milestone on this navigation programme: as a member of the Airbus core team, a contract was secured to deploy Version 3 of the Egnos programme, funded by the EU and operated jointly with the ESA.
- In 2017 Elecnor Deimos continued to play a major role in the development of various subsystems for all missions in relation to Earth observation satellites for the ESA (Sentinel 1, Sentinel 2, Sentinel 3, SMOS, GOCE, Aeolus etc.), for Eumetsat (Meteosat) and Spain (Ingenio and Paz).

#### REMOTE SENSING

- Successful completion of the Deimos 2 satellite receiver stations for the Thai and Vietnamese governments.
- Continuation of the strategic agreement signed with the Ukrainian Space Agency in 2016 to develop a station for Deimos 2 and for cooperation on future satellite and launcher projects.



#### AERONAUTICS AND MARITIME

- Work on Spain's major airports.
- Upgrades of Peruvian airports.
- Deployment of the sea surveillance system in Cameroon.
- Projects awarded by ASECNA, the air traffic control body for French-speaking Africa.

#### DRONES

- Design, manufacture, assembly and successful test flights of the company's own UAV known as D-80 Titán.
- First customer for the product: the French government, through the renowned aerospace institute Onera.

#### INFORMATION AND COMMUNICATIONS TECHNOLOGIES

- Consolidation as one of the main suppliers of technologies for the rail sector, where the key customers are Adif and Renfe, with facilities at the main stations on Spain's high-speed network.
- Active participation in the Group's joint strategy for smart cities.

# Concessions

## Power infrastructures



### Electricity

Elecnor, via Celeo Concesiones e Inversiones, is among the leading developers of power transmission projects under concession arrangements, in Brazil and Chile. It was involved in a total of 13 concessions in Brazil at year-end 2017, and in 3 concessions in Chile.

#### 2017 CONTEXT

Most progress in the electricity sector in Brazil in 2017 was observed in the energy transport segment. Since publication of provisional measure 579 in 2012, the electrical power sector has been in disarray, with an adverse impact on the performance of electricity companies.

Against this backdrop of uncertainty, the transport segment dynamised to become the most promising area in the sector. It experienced a period of scant resources, but eventually managed to attract fresh resources from investment funds, power generation and distribution companies and small/medium-sized construction companies. Private businesses also undertook a leading role in transport tenders, hitherto dominated by state-owned companies.

Investment packages scheduled for the years ahead with respect to expansion of Brazil's electricity transportation network have caught the eye of the main global agents in the sector, for three primary reasons: better remuneration for project, flexible financing conditions and better timelines for construction of the facilities, thereby reducing risk.

It was quite an intense year in Chile in terms of regulatory issues. The government introduced 9 regulations, most of which acted as a supplement to the provisions of the new Transmission Law approved in 2016.

Increased competition in recent transmission tenders in Chile and the outcome of the tenders led to increasingly narrow margins. No significant reductions are expected in profits in view of the current narrow returns.

This is compatible with leadership of the power sector in Chile in terms of investment over the last two years, although a slowdown is forecast in the generation sector after 2020 as the increase in demand decelerates.

Sebastián Piñera's new government, which based its election programme on higher investment and kick-starting growth, will be providing business opportunities in sectors such as mining, waster, infrastructures and energy.

#### 2017 MILESTONES



##### BRAZIL



- Through Celeo Redes Brasil, Elecnor secured lot 2 in the December 2017 auction by national electricity agency ANEEL. The project involves the construction of 414 km of transmission lines and three new substations, and the expansion of a further four in Piauí and Ceará states.
- Termination of the 500 kV Estreito-Fernão Dias transmission line. With approximately

340 km in the states of Minas Gerais and São Paulo, this belongs to concessionaire Cantareira Transmissora de Energia S.A., and the project was awarded in 2014. It is a strategic project for Brazil's electricity sector, as it forms part of the transportation system to address the power flow from the Belo Monte hydroelectric plant (11,233 MW), the world's third largest.

##### CHILE



- Commencement of operations by the national Charrúa-Ancoa 2x500 kV transmission system. The project entailed construction and operation of a 198 km electricity line. Through Celeo Redes, Elecnor finished the year in Chile with 454 km of fully operational electricity lines, and another 52 km still being built.
- Bond issue in the approximate amount of USD 600 million, with one tranche in dollars and another in local currency.

Both tranches have a 30-year maturity, and BBVA, Goldman Sachs and JP Morgan were involved in the transaction as Global Coordinators. This transaction is a milestone in the financial markets as it is the first project bond transaction structured in two simultaneous issues in two different markets, the US and Chile.



## Gas

Elecnor completed the commissioning of its first gas pipeline in Mexico, which it owns with Enagás through the Gasoducto de Morelos (GDM) company. It is an infrastructure which provides natural gas transmission services for the Comisión Federal de Electricidad (CFE) and other consumers of natural gas for an initial 25-year period.



Morelos gas pipeline (Mexico)

### 2017 CONTEXT

The Energy Reform introduced during President Enrique Peña Nieto's term may be considered to have been consolidated in all aspects. The third long-term electricity auction and oilwell rounds in 2017 were found to be a success in terms of incoming foreign investment. The results of the reform, designed to open up to the free energy market, will become apparent in the long term.

However, despite the warm welcome and the speed with which the reform is progressing, there are still many challenges to be overcome in the power industry. These include plunging oil prices, theft from oil and gas pipelines, and lower prices in long-term energy auctions, which force investors to price these risks in on their projects. The main stumbling block is that the good results of national and foreign investment are not welcomed by end users, who perceive higher energy prices as contrary to the promises of the reform.

One major event in 2017 was developments in the transformation of both Pemex and CFE into State Production Companies. Pemex is Mexico's largest flagship company. It is gradually lowering its resistance

to change, and is making use of our tools through alliances and globalisation with strategic partners. The result is a situation of more stable finance, thereby reducing the company's risk factor.

CFE has a similar financial strengthening strategy to Pemex, shedding debt thanks to renegotiation of its work force liabilities. Its strategic projects include replacement of fuels with gas and/or renewable energies, investment to modernise plants, and attracting private capital with new technology as a cost-cutter. It should be borne in mind that the reform has enabled CFE to participate directly in the market. It has launched a network of gaslines, 12 of which are now operational, to provide nationwide access to gas.

### 2017 MILESTONES



#### MORELOS GAS PIPELINE (MEXICO)

- The services contract was tendered by CFE and won by Elecnor in 2011.
- Following signature of the contract, Elecnor brought Enagás in as a project partner.
- The project includes design, financing, construction, commissioning and operation of the pipeline, which is more than 170 km long and runs through the states of Tlaxcala, Puebla and Morelos.
- In Morelos the gas is used at the CFE combined-cycle facility, with an installed power capacity of 640 MW.
- In October 2016 a natural gas transmission service contract was signed with local company Gas Natural del Noroeste (GNN). On this contract Gasoducto de Morelos will transport up to 7 TMCFD more natural gas over the next 5 years.
- To guarantee proper operation of the pipeline, GDM signed commercial advisory and technical contracts with Enagás and operation and maintenance contracts with Elecnor, S.A. de C.V.



# Power generation



## Wind power

Not only has Elecnor built a large number of turnkey wind power plants in Spain and other countries around the world for various promoters, but it has also acted as promoter and operator through its subsidiary Enerfín, which has proven experience in all phases of a wind project, from development and construction right through to operation. It is currently one of the sector's benchmark companies both in Spain and the Americas, with 920 MW of wind power fully operational.

The group's philosophy is based on technological independence and excellence in development, with a special commitment to environmental respect and integration.

### 2017 CONTEXT

New life was breathed into the wind power sector in Spain in 2017, mainly thanks to the renewable energy auctions in May and July. Of the 8,000 MW awarded, 3,908 MW were accounted for by wind power (in addition to 500 MW in 2016), to be installed before December 2019.

Only 96 MW of wind power contracts were installed in Spain in 2017, of which 59 MW are located in the Canary Islands, 18 MW in Zaragoza, and a further 16.5 MW are accounted for by renewal of the Malpica wind farm (La Coruña), run by Elecnor's wind power subsidiary Enerfín.

The sector is also showing an increasing interest in long-term PPAs as an energy sales instrument to make projects viable and obtain better financing conditions, while initially projects are now being deployed which only receive revenue from power sales to the market (pool).

In Brazil, to resolve overcontracting of energy by short-term distributors (as a result of economic and political crisis), the government permanently reverted contracting in reverse auctions of approximately 13,140 GWh per annum, of which 8,322 GWh were accounted for by wind power.

Subsequently, in continuation of the 2013-2020 Ten-Year Plan, which had envisaged additional wind power of between 1 and 2 GW per year, in 2017 the government resumed long-term electricity contracts with two auctions. It is also working on guidelines to reform the electricity sector, including the creation of a daily spot market and regulation for the privatisation of Electrobras.

In addition to the above, there are still restrictions on the capacity for connection to the short-term transmission network and delays in plans to expand the medium/long-term transmission network, which are compromising development of a large number of wind power projects.

Two Canadian provinces, Saskatchewan and Alberta, have established renewable energy targets.

In 2017 in Saskatchewan, which has 221 MW of wind power fully operational and a target of 1,900 MW by 2030, the public utility SaskPower issued a tender for 200 MW of wind power, with a 25-year PPA and commercial operation by 2021. It intends to issue further tenders every one or two years.

Alberta has 1,479 MW of wind power fully operational and a target of 5,000 MW by 2030. In 2017, at the behest of the provincial government, the electricity operator issued an initial tender for 400 MW of renewables, and finally awarded 600 MW.

In Australia, the bill introduced by the Victoria state government was approved in 2017, and this established the state's renewable generation targets (25% by 2020 and 40% by 2030). As part of the 'Powering Queensland' energy plan, the state of Queensland called for expressions of interest in an auction for up to 400 MW of renewables plus storage of 100 MW.

### 2017 MILESTONES



#### SPAIN

- Acquisition by Enerfín of the Abanca Corporación Industrial y Empresarial, S.L.U. stake in Enerfín Enervento, S.A. (30%), a holding company for stakes in ongoing wind power projects in Spain. With this acquisition Enerfín increased its attributable rated power in operation by 74.1 MW to 676 MW.
- Renovation of the 16.5 MW wind power plant in Malpica (La Coruña), after 20 years of operation by Enerfín. The

operation entailed replacement of the 69 wind turbines (67 x 225 kW and 2 x 750 kW) with 7 unit-power 2.35 MW Enercon turbines, the expected energy output of which (66 GWh) doubles that of the former plant.

- Expansion of the project portfolio to add 140 MW in Navarra and Aragón.





## BRAZIL

- Operation of the 375.5 MW in the country (318 MW in Osório and 57.5 MW in Palmares).
- Continuation of MW development in the Enerfín portfolio in Rio Grande do Sul.
- Evaluation of new projects in the north-

east of the country, in 'greenfield' mode and also on projects ready for offers, with the objective of adding more MW to the portfolio through this region.



## AUSTRALIA

- Formalisation of sale of the 191 MW Bulgana project in Victoria to Neoen Wind Holdco 1 Pty Ltd, in the terms agreed by the two companies at the end of 2016.

Enerfín has also begun to supply services to Neoen as backup to the final phases of the plant.



## CANADA

- Management of the 100 MW L'Érable wind power plant in Quebec, which has been operational since 2014.
- Intensification of promotional activity in Saskatchewan and Alberta, and maintenance of promotions in Ontario and Quebec. Specifically, an agreement

was signed in Saskatchewan province with one of Canada's largest pension funds for joint participation in the SaskPower project, and a prequalification was obtained to take up the tender with three projects in 2018.



## MEXICO

- Promotional activity in Yucatán province, extending the land secured to consolidate a large wind power plant as a positioning

for participation in future auctions, which are arranged annually in Mexico.



Osório wind farm complex (Brazil). Enerfín



## Solar photovoltaic

Elecnor has extensive experience in the field of solar photovoltaic energy, both as regards "turnkey" projects for third parties—see the Power Generation section in this Integrated Report—and the construction, operation and maintenance of its own projects, mainly in Spain and Australia.



The Valdecaballeros solar PV energy facility (Badajoz)

### 2017 CONTEXT

In global terms, 2017 saw a surge in the solar PV sector led by China, with over 50 GWp in new facilities built in the course of the year. This factor boosted investment by Asian manufacturers (China, India, Taiwan, Vietnam and Malaysia), which in turn pushed up the price of PV modules in the last quarter of the year.

The sector expanded in both emerging markets and developed markets, on the strength of greater competitiveness of PV systems with respect to other technologies.

Despite a Royal Decree on Autoconsumption penalising the sector in Spain, 2017 saw a significant increase in installed capacity to 135 MWp. This is 2.7 times more than in 2016.

Forecasts for the market in Spain are primarily linked to the outcome of renewable energy auctions in May and July 2017. Solar took 1,037 MW in the May auction, and 3,909 MW in July.



Solar PV plant Barcaldine (Australia)

### 2017 MILESTONES



#### SPAIN

- Operation and maintenance of the eight photovoltaic facilities owned by Elecnor: Siberia Solar (10 MW), THT Antequera (2 MW), AASCV Alginet (1 MW), AASCV2

Alginet (1 MW), ELC Murcia (610 kW), HAE Alacant (520 kW), Helios Almussafes I (100 kW) and Helios Almussafes II (97.5 kW).

#### AUSTRALIA

- Having completed the promotion, development, construction and start-up phases of the facility at the end of 2016, in 2017 Elecnor completed the sale of the 25 MW solar PV farm located in Barcaldine in the state of Queensland. This operation is in keeping with Elecnor's strategy for continuing to secure returns on its

infrastructure promotion, development and construction projects.

- Promotion of the second phase of the Barcaldine project, on which work is expected to start in 2018.



## Solar thermal

With its development, from 2010, of three solar thermal plants in Spain, Elecnor has demonstrated that it has the technical and economic capability to design, supply, build, start up, operate and maintain solar thermal plants based on parabolic trough collector technology.

### 2017 CONTEXT

Worldwide solar thermal installed capacity topped 5 GW in 2017, the year in which China commenced execution of the first lot of 20 plants, with a total capacity of 1,349 MW, and began preparations for a second allocation of lots with a higher power output. The same phenomenon was observed in markets such as Dubai, Morocco, Chile and Australia. All these projects double the forecasts of total installed capacity by the year 2020, according to information published by employers' organisation "Termosolar".

The same source puts Spain's total production in 2017 at 5,347 GWh, showing a 5.5% increase compared to 2016 and an all-time record in terms of electricity production by plants.

According to REE data, however, up to November 2017 zero MW had been installed, making 2017 Spain's fourth consecutive year with no new solar thermal facilities.

### 2017 MILESTONES



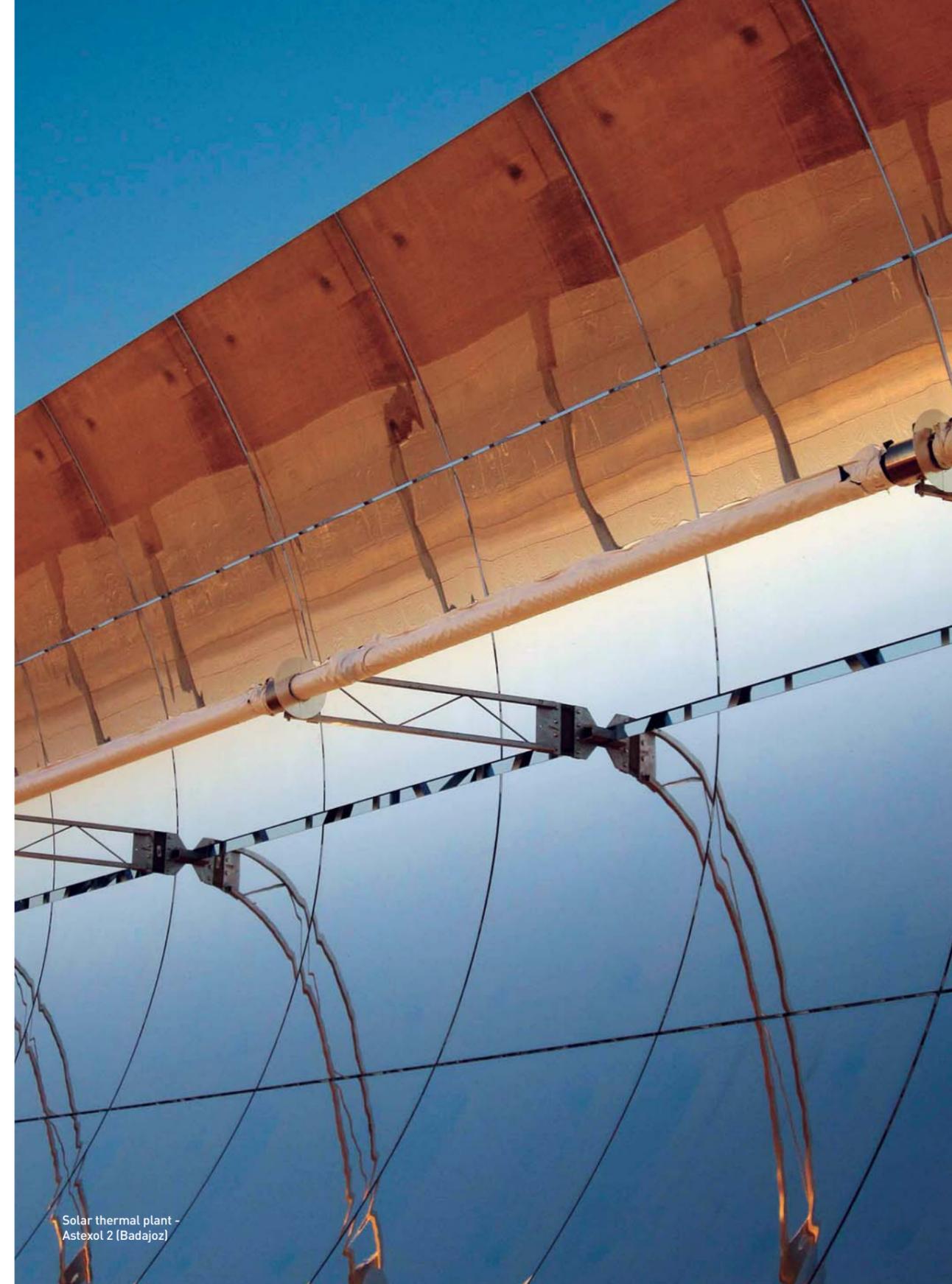
#### SPAIN

##### CIUDAD REAL (SPAIN)

- The Aste-1A and Aste-1B plants operated normally throughout the year, surpassing the initial production targets.

##### BADAJOS (SPAIN)

- The Astexol-2 plant's electricity production surpassed the target for the year.



Solar thermal plant - Astexol 2 (Badajoz)



# Environment

In line with previous years, in 2017, environment activities accounted for 2% of the investment assets of Celeo, the Elecnor Group's main vehicle for investing in, developing and operating concessions. Specifically, these activities entailed three water treatment concessions in the autonomous community of Aragón (north-east Spain). They are known as SADAR, SADEP and SAPIR. The three contain a total of 39 treatment facilities.



Wastewater treatment plant [Teruel]

## 2017 MILESTONES



### WATER PURIFICATION IN ARAGÓN (SPAIN)

#### SADAR

- This concession involves 10 wastewater treatment plants for various municipalities in the Cinco Villas and Zaragoza regions.
- All the plants have been operating since 2009.
- In 2017 3.3 hm<sup>3</sup> of water were treated.

#### SADEP

- This concession involves the treatment of wastewater for various municipalities in the Zaragoza and Valle del Ebro districts. It entails nine WWTPs and three collectors, which are remunerated at WWTP rates.
- The plants under this concession have been operating since their commissioning and came on stream gradually between 2009 and 2010.
- In 2017, 2.4 hm<sup>3</sup> of water were treated.

#### SAPIR

- This concession includes 58 treatment projects in the 'P2' area of the Pyrenees, along the Gállego River basin.
- There are currently 20 WWTPs in operation, all of which were completed in 2012. Of particular note is the Biescas-Gavín WWTP, which is designed to treat a population equivalent of 12,000.
- regional government decided to terminate plans for modification to the contract instigated in July 2016, and in early 2017 a contractual resolution process began for the portion not executed, which affects not only P2 but also the other three zones in the Comprehensive Treatment Plan in the Aragón Pyrenees, better known as the Pyrenees Plan.
- 1 hm<sup>3</sup> of water was treated in 2017.
- With regard to constructions pending, the

# Our people

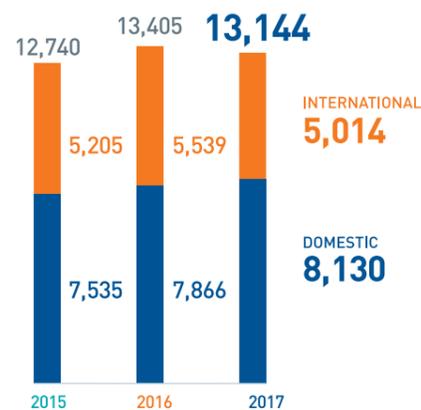


# Talent, our forward-looking project (G4-DMA)

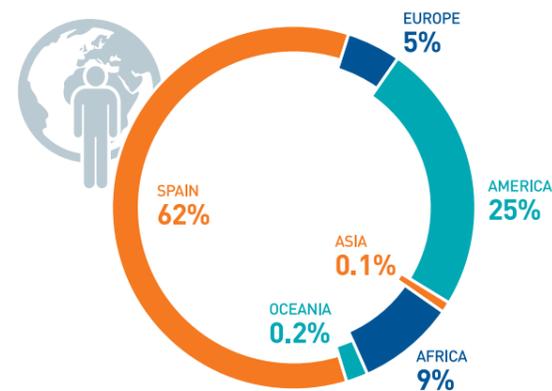
People are the key assets at Elecnor, which bases its strategy on values such as talent, transparency and teamwork in the safest possible conditions.

The Elecnor Group has an international, multicultural and diverse profile, with a workforce of 13,144 employees of over 50 nationalities who contribute a wealth of knowledge, approaches and culture to the organisation.

EMPLOYEES BY MARKET



WORKFORCE BY GEOGRAPHIC AREA



**13,144**  
PEOPLE



**+50**  
NATIONALITIES



**55%**  
PERMANENT CONTRACT



**8%**  
VACANCIES FILLED BY INTERNAL PROMOTIONS



**99%**  
SATISFIED PARTICIPANTS AFTER TRAINING ITINERARIES

The company has been working on Integrated Human Resources Management for several years, on the basis of selection, performance, compensation, development and training.



## END-TO-END MANAGEMENT OF HUMAN RESOURCES AT ELECNOR



**Selection**, as a way of acquiring and attracting the best talent available on the market, with priority given to internal talent.



**Performance**, as a process to analyse the work and results of each employee in their posts.



**Compensation**, to remunerate fairly in such a way as to reward and acknowledge merit.



**Development**, to put the emphasis on existing potential in order to provide opportunities for growth and improvement of professional careers.



**Training**, to develop skills and broaden knowledge for the best possible employee/job match.

In 2017, the Group focused on Performance Management aimed at aligning performance and results with strategy, ensuring that the skills model is the "way of doing", providing a direct communications channel between the assessor and the assessed, promoting a culture of excellence, focusing on results and continuous improvement and being a source of objective, precise information to ensure fair decision-making. **(G4-LA11)**

Performance Management has three phases, and is based on the definition of four core competences: results orientation, commitment, values and quality and security. These competences include the necessary patterns of behaviour for each person, specified in accordance with their posts.



## MANAGEMENT OF PERFORMANCE



This system gives the Group relevant, objective and transparent information to enable it to draw up plans for training, development and compensation.

The selection and internal mobility policy has been updated, and the first modules of a number of training itineraries implemented with a focus on "People first!", which aims to convey the Group's essence, culture and values to new employees.

This training process is intended to assist employees who have been with Elecnor for only a limited period of time in grasping the main features of corporate policy, to enable them to carry out their functions more efficiently.

The fact that it was the company's senior management who were instrumental in establishing the main contents of training facilities demonstrates the importance Elecnor attaches to people, the basis for achievement of objectives throughout the Group.

Valencia, Barcelona, Sevilla, Bilbao and Madrid were the initial locations for presentation of Talent, the Integrated Human Resources Management Project. This deployment in cities with the largest numbers of staff was followed up by others such as Valladolid and Badajoz. International deployment has been scheduled for 2018, when the project is to be rolled out in all countries in which the Group conducts stable operations, although in 2017 an initial deployment was carried out in Chile.

The conferences, known as "People, Commitment and Talent" in view of the importance of these three concepts in the project, were staged with talks by the CEO, the Director of Infrastructure, the Director of Corporate Development and the Deputy Director of Human Resources. To symbolise the hard work and commitment of all Elecnor's employees, the career and dedication of more than 25 people in the Group were singled out for praise.

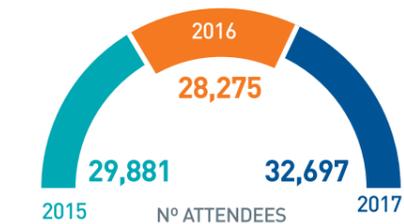
## ENCOURAGEMENT OF TRAINING (G4-LA9, G4-LA10)

One of Elecnor's main objectives is to establish procedures and develop the training tools required to ensure that the requisites and responsibilities of each post are fulfilled with the necessary diligence and knowledge.

Skills must be developed and knowledge enhanced for the best possible employee/job match, and for the transmission of knowledge and experience to guarantee the achievement of present and future objectives.

The Group has maintained a steady focus on training in recent years.

## TRENDS IN TRAINING INDICATORS



### TRAINING COURSES, ATTENDEES AND HOURS BY GENDER

Area	Nº of Courses	Attendees			Hours		
		Women	Men	Total	Women	Men	Total
Management	102	171	487	658	2,834	4,713	7,547
Technology	732	94	5,081	5,175	1,521	72,582	74,103
IT	49	80	167	247	1,562	3,813	5,375
Languages	356	155	301	456	5,035	9,602	14,637
Quality and the Environment	121	76	709	785	449	2,223	2,672
Prevention of occupational hazards	4,066	917	24,459	25,376	7,566	159,716	167,281
<b>TOTAL</b>	<b>5,426</b>	<b>1,493</b>	<b>31,204</b>	<b>32,697</b>	<b>18,966</b>	<b>252,649</b>	<b>271,615</b>

### HOURS OF TRAINING AND ATTENDEES BY PROFESSIONAL CATEGORIES

	Attendees	Hours
<b>Elecnor, S.A.</b>		
Executives and technical	3,107	36,087
Administrative and office personnel	1,334	13,765
Site managers	1,391	12,761
Operatives	9,611	115,728
Short occupational hazard prevention sessions taught by Prevention Officers	8,242	7,833
<b>Group subsidiaries</b>		
Domestic / International subsidiaries	9,012	85,441
<b>TOTAL</b>	<b>32,697</b>	<b>271,615</b>

Technical and internal training, including the prevention of occupational hazards, for site workers, is still the most urgent aspect, since this area involves the most people and accounts for most hours worked.

### CHOOSING THE BEST TALENT

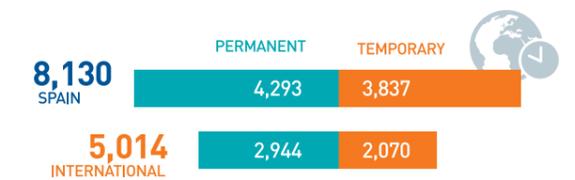
#### 2017 MILESTONES

- Participation in employment forums and informative events at universities and training centres to recruit students and graduates/qualified labour. In 2017, 63% of interns joined the Group headcount.
- First report produced with data compiled after a year of departure interviews. The objective is to make improvements in the areas where turnover is greatest.
- Assessments of recruitment processes traditionally carried out by external consultants were conducted in-house. To this end, the recruitment team obtained certification in a new tool ('Predictive Index'), which offers a clear understanding of work place behaviour.
- Upgrade of the profile of Elecnor Talent on LinkedIn, with a communication campaign to strengthen the company's positioning as a talent-seeker.
- Deployment of the Selection module via the IT tool "ATS", for better management of internal mobility.

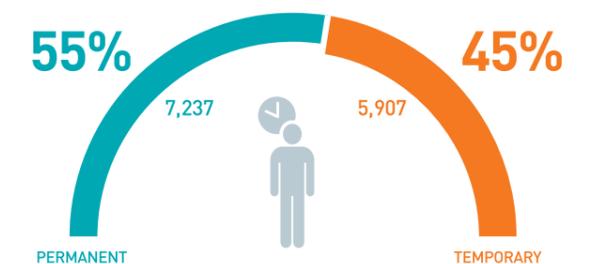
### THE PROFILE OF OUR PROFESSIONAL STAFF (G4-10, G4-LA1)

At year-end 2017 the Group work force had fallen by 261 employees against the previous year (-2%) to stand at 13,144 employees. The fall was observed on foreign markets, which was reduced by 525 staff, mainly as a result of projects drawing to a close in Latin America and Angola. On the other hand, the work force rose by 264 employees on the domestic market, thanks to telecommunications maintenance and infrastructure activities.

#### WORKFORCE BY CONTRACT TYPE AND MARKET

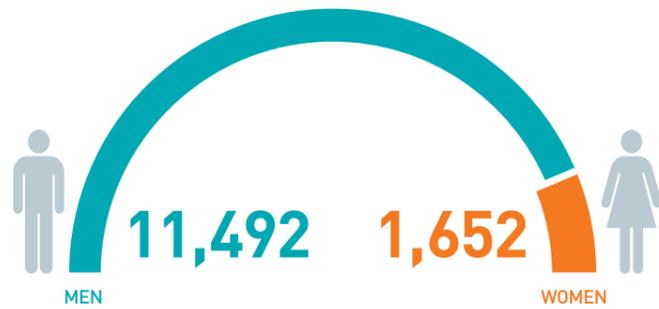


#### WORKFORCE BY CONTRACT TYPE

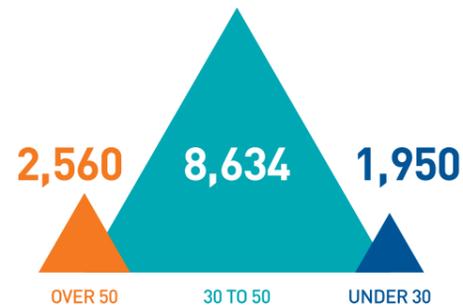




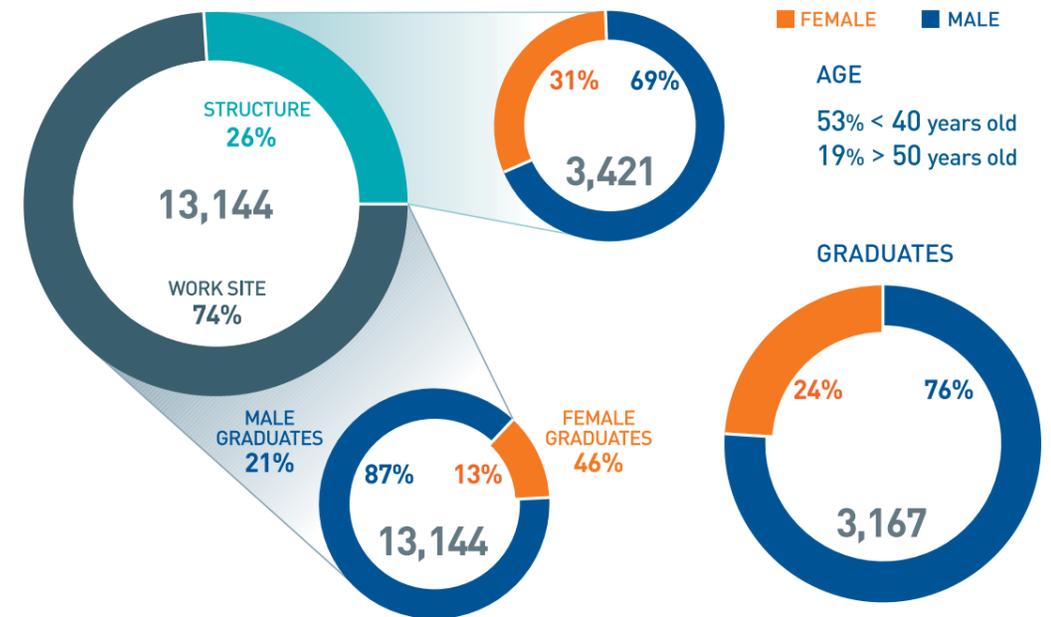
### WORKFORCE BY GENDER



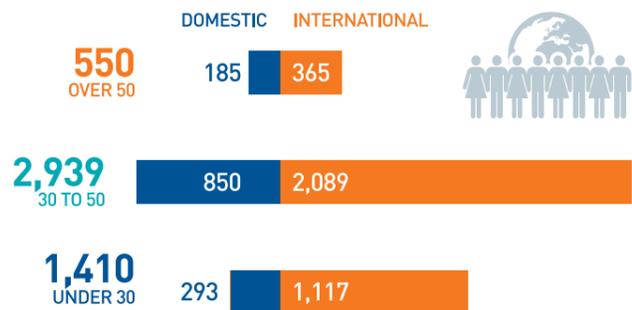
### AGE PYRAMID



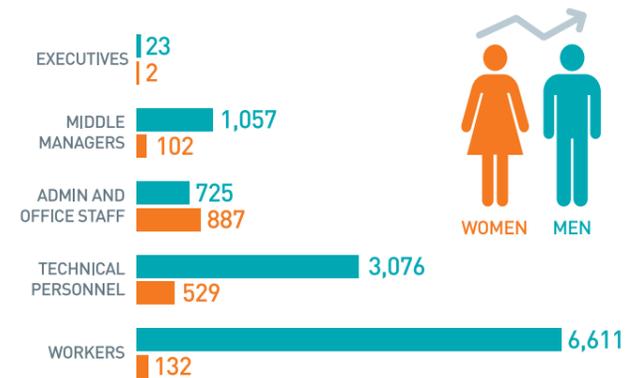
### PEOPLE AT ELECNR



### NEW CONTRACTS BY AGE RANGE AND MARKET



### PROFESSIONAL CATEGORIES BY GENDER





## WORK FORCE TURNOVER BY AGE RANGE, GENDER AND REGION

LOCATION	DEPARTURES	AVG. EMPLOYMENT	TURNOVER 2017
<b>Spain</b>	<b>1,703</b>	<b>8,079.92</b>	<b>21.08%</b>
<b>Men</b>			
Over 50	380	1,702.42	22.32%
30 to 50	966	4,760.50	20.29%
Under 30	215	569.50	37.75%
<b>Women</b>			
Over 50	25	154.92	16.14%
30 to 50	91	743.75	12.24%
Under 30	26	148.83	17.47%
<b>Europe</b>	<b>133</b>	<b>568.83</b>	<b>23.38%</b>
<b>Men</b>			
Over 50	33	132.50	24.91%
30 to 50	71	282.50	25.13%
Under 30	18	82.00	21.95%
<b>Women</b>			
Over 50	3	9.00	33.33%
30 to 50	7	41.83	16.73%
Under 30	1	21.00	4.76%
<b>North America</b>	<b>133</b>	<b>568.83</b>	<b>23.38%</b>
<b>Men</b>			
Over 50	21	135.58	15.49%
30 to 50	70	301.58	23.21%
Under 30	27	64.50	41.86%
<b>Women</b>			
Over 50	4	8.17	48.98%
30 to 50	8	52.42	15.26%
Under 30	3	6.58	45.57%
<b>Latin America</b>	<b>3,081</b>	<b>3,410.08</b>	<b>90.35%</b>
<b>Men</b>			
Over 50	381	482.00	79.05%
30 to 50	1,762	1,935.83	91.02%
Under 30	760	643.58	118.09%

LOCATION	DEPARTURES	AVG. EMPLOYMENT	TURNOVER 2017
<b>Women</b>			
Over 50	10	35.92	27.84%
30 to 50	95	209.50	45.35%
Under 30	73	103.25	70.70%
<b>Asia</b>	<b>8</b>	<b>12.75</b>	<b>62.75%</b>
<b>Men</b>			
Over 50		0.92	
30 to 50	4	3.50	114.29%
Under 30	4	7.25	55.17%
<b>Africa</b>	<b>925</b>	<b>1,440.58</b>	<b>64.21%</b>
<b>Men</b>			
Over 50	38	61.92	61.37%
30 to 50	475	781.67	60.77%
Under 30	265	318.42	83.22%
<b>Women</b>			
Over 50	2	9.42	21.24%
30 to 50	81	159.75	50.70%
Under 30	64	109.42	58.49%
<b>Oceania</b>	<b>6</b>	<b>14.17</b>	<b>42.35%</b>
<b>Men</b>			
Over 50	2	1.75	114.29%
30 to 50	2	6.17	32.43%
Under 30		1.58	
<b>Women</b>			
Over 50	1	1.92	52.17%
30 to 50		1.75	
Under 30	1	1.00	100.00%
<b>TOTAL GROUP</b>	<b>5,989</b>	<b>14,095</b>	<b>42.49%</b>

**Turnover:** Total departures/average employment\*100

**Departures:** Total voluntary redundancies, leaves of absence, retirements, deaths, dismissals, contract expiries and other types of departure



## MANAGEMENT OF DIVERSITY

(G4-DMA, G4-LA12)

In general terms, most women in the Group work in technical and office areas, they are between 30 and 50 years old, and their numbers have progressively increased over the last three years. In this regard, Elecnor is aware of the gender gap in the sector because the infrastructure sector has been a traditionally masculine area for many years.

The Group has an equality plan which reflects its commitment to equal opportunities between men and women and non-discrimination in its principles of conduct.

This year saw the continuation of a process to monitor the goals set out in the Plan and to increase the number of women working for the Group and elevate them to positions of responsibility.

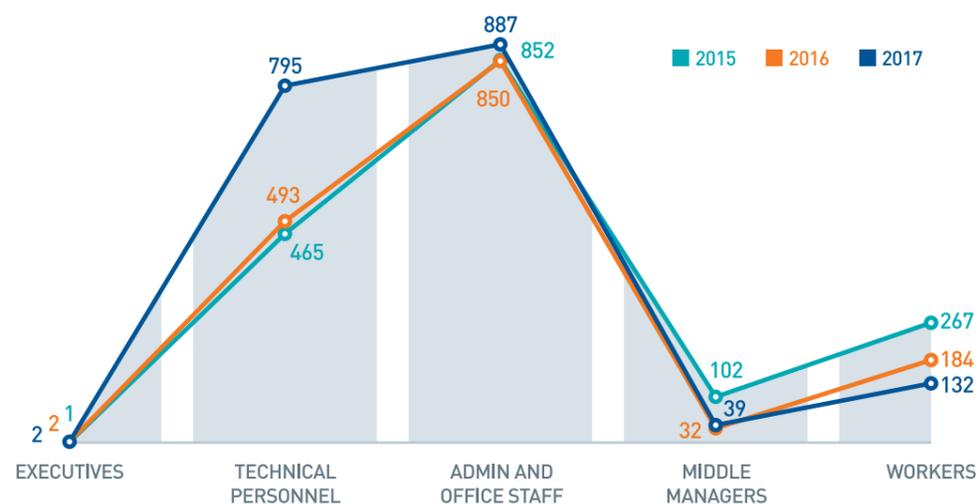
For next year, the company has set its sights on the Ministry of Health, Social Services and Equality's "Equality in the Company" certificate.

It should also be noted that the basic salary for each professional category is the same for men and women, and exceeds the guaranteed minimum wage. Likewise, there are no differences in the remuneration received by men and women in their professional categories.

In terms of a work-life balance, for posts where this is possible, the company is keen to promote certain practices to this end, such as avoiding meetings at the end of the working day, flexible working hours, the provision of equality training, intensive working days during the summer months, or shorter working days, as applicable.

In 2017, 233 of the 248 men entitled to paternity leave took this up, as did all 63 of the women entitled to maternity leave - 58 of the women returned to work subsequently. (G4-LA3)

### TREND IN THE PROFESSIONAL CATEGORY OF WOMEN



Elecnor employs 40 people with some kind of disability. Pursuant to Spain's Law on the Social Integration of People with Disabilities ("LGD"), Elecnor was again granted an exception certificate and contracted a range of services in the amount of EUR 2,189,091, thereby exceeding the amount legally required by EUR 186,000.



[igualdad@elecnor.com](mailto:igualdad@elecnor.com)

The commitment of the Equality Plan focuses on eight areas:

- Management
- Training
- Promotion
- Remuneration
- Communication
- Retention
- Work/life balance
- Employment/social protection



## COMMUNICATING FOR ONE AND ALL

Work on internal communications in 2017 focused on sharing the Group's new features with its staff, encouraging participation and conveying important messages, thus generating an atmosphere of pride in belonging and fostering commitment and motivation at all times.

The Intranet remains the main internal communication tool, and the Group continues to publish a weekly news bulletin. All information on the Intranet is kept up to date, from business documents to those required to carry out the Group's business activities. The weekly news published in the "Nuestraltranetaldía" newsletter keeps all Elecnor personnel up to date with the main Company facts and expectations.

The following are a few of the awareness and training campaigns deployed:

### PREVENTION OF OCCUPATIONAL HAZARDS

- **International Occupational Health and Safety Day.** The aim of this annual campaign is to raise awareness among all Elecnor employees of the importance of occupational health and safety, and to highlight the company's commitment in this regard. The aim is to eliminate accidents arising from serious breaches of OHS measures and making progress towards the achievement of our steadfast goal of "zero accidents" for all staff.

- **Road Safety.** Awareness of the principles in the company's prevention rules. There is also a "Safety Updated" initiative ("Seguridad al día"), which provides preventive personal and employment-related advice twice a week.

### ENVIRONMENT

On the World Day of the Environment, Elecnor produced a video setting out major milestones in its environmental policy and commitment to protecting and respecting the environment and the efficient consumption of energy resources.

### THE GROUP'S COMPLIANCE SYSTEM

The Intranet and in situ training were the main tools used to convey the importance of maintaining the highest standards of ethics and compliance with the law, a steadfast principle which must govern any action taken by the Group.

### LATEST EDITION OF THE ELECNOR FOUNDATION'S CORPORATE VOLUNTEER PROGRAMME

A new specific Blog was set up to enable volunteers to share their experiences on the H20Me Project in Angola with their Group colleagues, online and via a mobile phone alert service.

### COMPANY PERKS (G4-LA2)

The Flexible Compensation Plan ("PCF"), flexihours, shorter working days during the summer months and study aid are just a few of the company perks offered to all Elecnor staff.

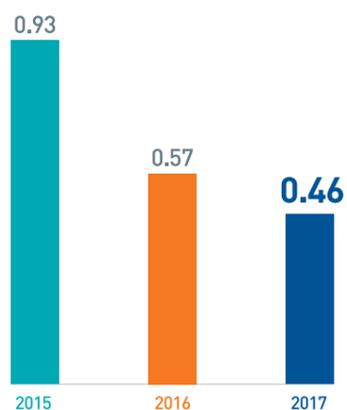
The "PCF" Flexible Compensation Plan is a customised remuneration system which allows each employee to decide, on a voluntary basis, how they wish to receive part of their annual pay, in order to adapt this to their personal and family needs at any given time. Most of the PCF products entail tax breaks.

The scheme was offered to 1,670 employees during the last round. 483 products were registered - luncheon vouchers, crèche cheques, health insurance for the employee and direct family members, transport card and IT equipment.

Another company perk is study aid for employees' children studying in the second cycle of pre-primary school (basically from 4-5 years old), primary and secondary school.

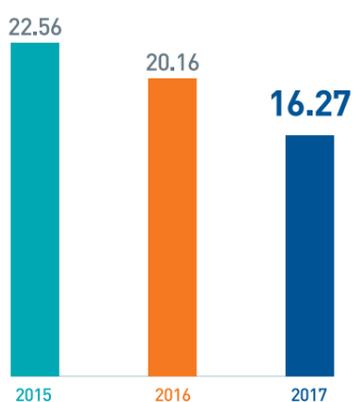
**The Flexible Compensation Plan ("PCF"), flexihours, shorter working days during the summer months and study aid are just a few of the company perks offered by Elecnor**

### SERIOUSNESS INDEX



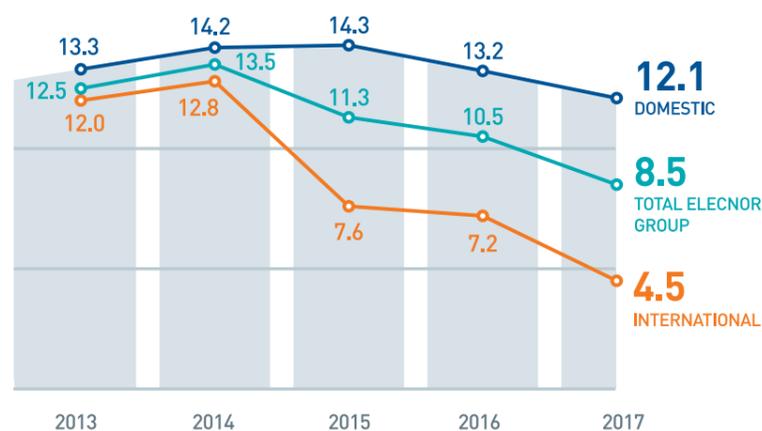
Using working days as the yardstick

### INCIDENT INDEX



Calculated per 1,000 employees

### FREQUENCY INDEX (G4-LA6)



### A CLEAR TARGET: ZERO ACCIDENTS (G4-DMA)

In 2017 Elecnor continued to further the company's strategies to achieve its goal of zero accidents and zero tolerance for non-adherence to preventive measures.

This year produced the best injury frequency index in Spain since 1967, when the Group started preparing these prevention indicators. More specifically, the accident frequency index, which represents the number of workplace accidents resulting in an absence, was 12.1, compared to 13.2 in 2016. On the international market the index was 4.5, also an improvement on 7.2 the previous year.

The Group-wide accident frequency index stood at 8.5, the best performance since the Group started including data for the international market.

However, Elecnor regrets one fatal accident in the course of the year, and the company will therefore work harder to achieve its goal of zero accidents.

On the strategic front, work is ongoing on two major fronts to move towards zero accidents:

- The **Digital Transformation** project will eliminate bureaucratic tasks which add no value, and will generate added value in that safety officers and line managers can spend more time on training and visiting sites, among other aspects.
- The **Safety Excellence** project has continued to make process in various areas: risk management, awareness, organisation, learning, motivation and continuous improvement.

### 2017 MILESTONES

- 903 internal project audits by way of a control measure.
- More than 52,300 safety inspections throughout the Group, leading to more than 21,100 corrective measures.

- Work continued on scheduled training and awareness activities:
  - 422 people took the basic level course, with 25,320 hours of training taught.
  - 3,156 people signed up for the "Risk Factor" Awareness Programme, with 19,413 hours taught.
  - 1,018 people signed up for the first cycle of TPC, with 8,144 hours taught.
  - 1,410 people took working at height courses, with 11,708 hours taught.
  - 901 people took confined spaces courses, with 7,668 hours taught.
  - 786 people took first aid courses, with 4,019 hours taught.
- 14 internal audits, as per the requirements of OHSAS 18001.
- External audits at Elecnor and subsidiaries Audeca, Ehis, Enerfín, Jomar Seguridad and Atersa, with a satisfactory outcome.
- Communication campaign for International Occupational Health and Safety Day to spread awareness and disseminate Elecnor's commitment

### ACKNOWLEDGEMENT OF OUR COMMITMENT TO PREVENTION OF OCCUPATIONAL HAZARDS

- At the 3rd Annual Prevention Conference, **Naturgas Energía Distribución** gave the Elecnor Group the Award for Occupational Hazard Prevention Management Systems as part of the 2nd EDP Naturgas Energía Prevention Awards
- Audeca won the **XIII ACEX Awards** for road safety in the road conservation section with its "Site signalling with extendible tripod" project
- At its Safety Day 2017, **Viesgo Distribución** gave Elecnor an award for active participation in H&S
- IQA, the Group's UK subsidiary, took the British Safety Council's **International Safety Award 2017**



Celeo Redes Chile is the electricity company with the best safety record in the country: 1,000 days with no accidents among the company's operating and maintenance staff

# Social Value



# Generation of value and fiscal transparency

Elecnor's activity has a direct and indirect economic impact on its main stakeholders. As a global company, the Group helps create wealth in different parts of the world.

Motivated by its involvement in areas such as infrastructure, power or the environment, Elecnor has become a key player in the development and progress of society, with a direct impact on achievement of a number of the United Nations' Sustainable Development Goals (SDGs).

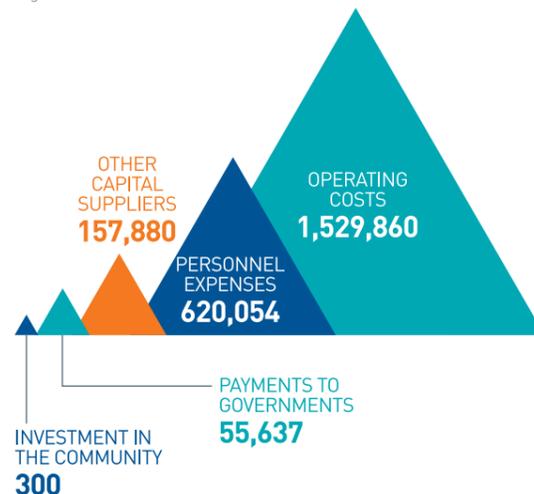
Elecnor can distribute value sustainably thanks to a path of solid constant growth. **(G4-EC1)**

GENERATION AND DISTRIBUTION OF ECONOMIC VALUE (THOUSANDS OF EUROS)		
	2017	2016
<b>Economic value generated</b>	<b>2,486,226</b>	<b>2,239,203</b>
<b>Economic value distributed</b>	<b>2,363,731</b>	<b>2,114,839</b>
Personnel expenses	620,054	551,345
Operating costs	1,529,860	1,390,751
Other capital suppliers	157,880	131,682
Payments to governments	55,637	40,761
Investment in the community	300	300

**Source.** These figures are taken from the 2017 consolidated financial statements, with the exception of dividend payments and corporate income tax, which are taken from the cash flow statement in the financial statements.

## ECONOMIC VALUE DISTRIBUTED

Figures in thousands of euros



## JOB CREATION

Elecnor generates value through job creation and contracts with suppliers, particularly in markets in which it is active.

In 2017, 93% of the Group's 13,144 employees were local. Elecnor also created wealth and employment in its areas of influence by engaging local suppliers. **(G4-EC9)**

LOCATION	EMPLOYEES	% LOCAL EMPLOYMENT
Africa	1,121	88%
America	3,247	90%
Asia	17	76%
Spain	8,130	95%
Europe	609	95%
Oceania	20	75%

LOCATION	PROCUREMENT	% LOCAL PROCUREMENT
<b>Spain</b>	<b>498,246</b>	<b>99%</b>
<b>Europe</b>		
Italy	5,588	100%
Norway	1,131	100%
Portugal	11,531	100%
<b>North America</b>		
Mexico	1,607	99%
<b>Latin America</b>		
Venezuela	16,256	70%
Dominican Republic	20,647	39%
Panama	1,626	38%
Chile	8,024	0%
Ecuador	30	0%
Honduras	10,112	70%
Uruguay	631	0%
Brazil	322	0%
Bolivia	12,918	26%



LOCATION	PROCUREMENT	% LOCAL PROCUREMENT
<b>Asia</b>		
Saudi Arabia	33	100%
Jordan	36,348	67%
Oman	6	0%
<b>Africa</b>		
Algeria	3,053	0%
Angola	21,104	55%
Congo	1,860	67%
Cameroon	507	56%
Ghana	8,215	20%
Guinea	1	0%
Morocco	565	100%
Mauritania	8,008	40%
<b>TOTAL</b>	<b>668,369</b>	

The data are for Elecnor, S.A.

## SHAREHOLDER RETURN

Elecnor, S.A.'s shares are listed on the Continuous Market's SIBE system, the index on which the shares of Spain's flagship companies and those with the highest volumes are traded.

The company has proved able to create value for its shareholders steadily in recent years.

STOCK MARKET INDICATORS	2017	2016
Closing share price (€)	13.29	8.98
Trading volume (millions of shares)	9.5	4.4
Cash trading volume (millions of €)	109.0	34.4
Number of shares (millions)	87.0	87.0
Market cap (millions of €)	1,156.2	781.3
PER	16.2	11.4
Dividend yield	3.1%	3.2%

Elecnor's shares finished 2017 at EUR 13.29, up by 48% compared to the end of the previous year and definitely outperforming the Ibex-35, which climbed by only 7.40%.

The proposed appropriation of 2017 earnings by the Board of Directors to the General Shareholders' Meeting involves distributing a dividend of EUR 0.233868 per share. Payment of this dividend, if approved at the General Shareholders' Meeting, would produce a total dividend against 2017 earnings of EUR 0.286868 per share, a year-on-year increase of 4%.

## GENERATION OF SOCIAL VALUE THROUGH SDGS

In September 2015, a total of 193 countries adopted an agreement at the United Nations to eradicate poverty, reduce inequality and boost the planet's sustainability. The agreement, which makes up Agenda 2030, contains 17 goals to transform the world. Elecnor's infrastructure, energy, water and environment projects are helping to address the global challenges posed by the SDGs, such as climate change, reducing the energy divide and improving access to basic materials such as energy and water, among others.

Elecnor helps achieve these goals through its own activities, those of the Elecnor Foundation and a raft of initiatives, some of which are described in this Report below.



VIP lounge at Valencia airport. Area 3



**Goal 1.** End poverty in all its forms everywhere

- **Atersa**  
Rural electrification project: Senegal, Benin and Chad
- **Celeo**  
Power transmission projects
- **Enerfin**  
Social projects (Colombia)



**Goal 3.** Ensure healthy lives and promote well-being for all at all ages

- **Elecnor Group**  
Excellence in Safety Project  
Awareness campaign to mark International Occupational Health and Safety Day



**Goal 4.** To ensure inclusive and quality education for all and promote lifelong learning

- **Elecnor Group**  
Talent Project  
Training itineraries
- **Elecnor Foundation**  
Project - Enterprise and Learning in Digital Mode (Nicaragua)  
Cooperation agreement by Santos Fútbol Club de Luanda, Elecnor Angola and the Elecnor Foundation
- **Celeo**  
Project - CFR Agricultural Technical School. Father Josimo Tavares (Brazil)
- **Enerfin**  
School trips to the L'Erable wind farm (Canada)



**Goal 6.** To ensure availability and sustainable management of water and sanitation for all

- **Elecnor Foundation**  
Project - Synergy (Chile)  
Project - H2OME (Angola)
- **Atersa**  
Water pumping projects in developing countries



**Goal 7.** To ensure access to affordable, reliable, sustainable and modern energy for all

- **Elecnor Group**  
Energy efficiency initiatives
- **Elecnor Foundation**  
Social infrastructure projects  
Initiatives by the Renewable Energy and Energy Efficiency Chair with the School of Industrial Engineering (ETSII)
- **Celeo**  
Power transmission projects
- **Enerfin**  
Wind Farms
- **Atersa**  
Solar PV plants



**Goal 8.** To promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- **Elecnor Group**  
Creating and fostering local employment  
Contracts with local suppliers  
Global Compact Signatories

- **Elecnor Foundation**  
Specialist post-cycle course in medium/low-voltage electrical facilities  
Cooperation with universities



**Goal 9.** To build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

- **Elecnor Group**  
Programme - BIND 4.0  
Innova call for innovation projects

- **Enerfin**  
Projects with indigenous communities (Colombia)



**Goal 11.** To make cities and human settlements inclusive, safe, resilient and sustainable

- **Elecnor Group**  
Smart City projects / Public lighting

- **Elecnor Foundation**  
Local infrastructure projects

- **Enerfin**  
Projects with indigenous communities (Colombia)

- **Audeca**  
Municipal waste collection projects



**Goal 13.** To take urgent action to combat climate change and its impacts

- **Elecnor Group**  
Renewable energy projects: PV, biomass, wind power, hydroelectric  
Digital Transformation Project  
Climatic risk analysis  
Calculation and verification of carbon footprint  
Emissions reduction plan



**Goal 15.** To protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

- **Celeo**  
Bird identification workshop  
Birdwatching club

- **Audeca**  
Project for conservation and maintenance of natural protected areas in Ávila province  
Implementation of compensatory measures

## FISCAL TRANSPARENCY

In addition to creating value for society by paying taxes, Elecnor's transparency and communication policy induces it to report on its tax contribution in countries in which it operates, as shown below.

TAX PAYMENTS BY ELECNOR, S.A. (THOUSANDS OF EUROS) 2017	CORPORATION TAX	OTHER TAXES AND CHARGES
Angola	429	3,331
Algeria	286	29
Bolivia	39	104
Brazil	-	77
Cameroon	-	30
Chile	-	527
Ecuador	-	7
Spain	23,803	6,072
United States	-	76
Ghana	2	66
Guatemala	0	-
Guinea	-	1
Haiti	266	-
Honduras	-	52
Italy	-	94
Jordan	1,964	14
Kuwait	25	-
Morocco	-	6
Mauritania	15	142
Mexico	-	76
Panama	21	52
Peru	-	1,235
Dominican Republic	884	89
Senegal	1	10
Venezuela	-	238
<b>TOTAL</b>	<b>27,735</b>	<b>12,327</b>



Substation in  
Los Barrios (Cádiz)

# Technology and innovation

## Elecnor takes up the challenge of digital transformation

Elecnor has implemented a strategic digital transformation project in order to secure cultural change, better processes, operating efficiency and competitiveness. In short, it is moving towards an efficient management model that seeks to align processes, technology and people.

A global, transversal and inclusive work system has been deployed to drive innovative initiatives associated with continuous improvement and operational excellence through technology. Thanks to all the Group's professional employees, these initiatives are transforming and will transform our way of doing this, giving a boost to service quality, efficiency, management of information and regulatory compliance.

Within three to five years, the Group intends to have the best technological solutions and be in a position to implement them, disseminate them and train its entire work force.

To guarantee the success of the project, a Digitalisation Office was created under the Finance Department to ensure compliance with the objectives established and gauge progress with a Digitalisation Index.

A number of working groups were set up for the project, and the Office coordinates all initiatives relating to innovation in processes, technology and people. Each working group examines a number of initiatives on a specific issue, and allocates the required number of people within the organisation to reach a decision concerning the process to be implemented and IT backup.

### ANALYSIS PHASE

Reflection of technological requirements for present and future business

### FIRST STEPS

Commencement of the Digital Transformation process on three fronts:

- People
- Processes
- Technology

### ROADMAP

Participational, innovative and scalable work dynamics



The decision taken is appraised by the Operations Committee, which has representatives of the entire company and provides a transversal and business vision.

Finally, the Operations Committee escalates the decision to the Steering Committee, which conducts an analysis of the steps to be taken and, if a positive appraisal is forthcoming, furnishes the resources required to carry out the initiative.

After two years' work on a digital diagnosis and analysis, Elecnor has arranged nine working groups and 30 initiatives, five of which are up and running.

In 2017, 62.5% of the digitalisation target was achieved. Work focused on a number of fundamental processes, among which personnel management, management of purchases, prevention of occupational hazards, operations management, management of fixed assets and management of collections/payments.

More than 200 people were involved in the initiatives and working groups, with over 500 work sessions to manage the 30 initiatives that finally affect and/or will affect 5,000 people.

After the first phase of operational improvements and the implementation of tactical measures, some initiatives are now embarking upon the second phase of digital transformation.



62.5%

DIGITALISATION TARGET MET



9

WORKING GROUPS



30

DIGITALISATION INITIATIVES



MORE THAN 200 PEOPLE

INVOLVED IN THE INITIATIVES AND WORKING GROUPS

# Creating new business opportunities

The strategic challenges faced by the Group include maintaining business diversity, which requires flexibility and the ability to evolve, and creating new business opportunities that enable us to maintain competitive edge and safeguard future sustainability. The key to this is innovation, and participation in initiatives that will boost innovation.

## BIND 4.0. PROGRAMME BOOSTING INNOVATION THROUGH START-UPS

In such a volatile fast-changing environment, start-ups contribute added value because of their swiftness in reacting to these changes and their ability to generate disruption with new opportunities and business models based on technology and diversification of activities and products.

The current corporate trend is open, collaborative innovation where the know-how and projects can come from sources outside the company. This is where start-ups can play an essential role. This type of innovation enables companies to access more knowledge, to innovate with fewer resources and to act with greater agility, fostering the creation of new business opportunities.

BIND 4.0 is a start-up accelerator programme in the sphere of Industry 4.0 run by the SPRI (Basque Business Development Agency), which provides support and services for participants by fostering their development and growth through mentoring, training and access to potential technology partners.

Elecnor is one of the 27 technology partners on the programme alongside firms such as Iberdrola, Arcelor Mittal, ABB, Repsol-Petronor, Google and Amazon.

In this programme Elecnor searches for start-ups furnishing solutions based on new technology that will provide a better service for customers. Start-ups can also avail themselves of Elecnor's technological, commercial and management capacity, which gives them the chance to develop and grow their business.

After attending the presentation meetings, Elecnor shortlisted 6 start-ups and finally an agreement was signed with CounterCraft to roll out a pilot. CounterCraft is a Spanish start-up which applies innovative methods to carry out cybersecurity counterintelligence.



27

TECHNOLOGY PARTNERS



6

SHORTLISTED START-UPS

# R+D+i management

Improvement of competitiveness through R+D+i to add value and enable Elecnor to differentiate itself from its competitors. Technological areas of interest are chiefly related to energy, the environment, water, infrastructure, facilities and special projects.

R+D+i management is one of the variables making up the Group's Integrated Management System. The initiatives carried through in 2017 focused on continuous improvement of corporate tools and on boosting the innovation component of projects carried out. These courses of action aim to make improvements to the Group's current services, products and processes, and explore new business models.

## 2017 MILESTONES

Retaining UNE 166002 certificates for Elecnor and Audeca R+D+i management systems

Financing three projects through the Innova system: Mechanical calculation of brackets, APPMARKET and Phytotreatment of soils.

Adhorna, along with the top electrical distribution companies in Spain, helped to draw up UNE Standard 0059 "Glass-fiber reinforced polymer (GFRP) posts for overhead electrical and telephone lines".

Elecnor has also struck innovation partnerships with universities and technology institutes, among which Cartagena Polytechnic University, CEBAS-CSIC, the University of Valladolid and the University of the Basque Country (UPV/EHU).

In 2018, the Group will continue to work on the implementation and consolidation of a competitive intelligence system concentrating on an analysis of

main competitors and markets, and on increasing the number of innovative projects gearing towards improving construction and management of plants.

## THEMED WORKSHOP

A themed workshop was arranged in 2017 which, like the previous year's workshop, addressed energy storage.

The workshop was taught by Siemens, and was attended by more than 20 employees from Group organisations. During the event participants shared some of the company's solutions, the market context and recent trends. The workshop ended with a round of questions and discussion.

## Audeca wins another ACEX innovation award

For the second year running, Audeca, the Elecnor subsidiary specialising in integral maintenance of road infrastructures, received a prize from Asociación de Empresas de Conservación y Explotación de Infraestructuras (ACEX) in the 13th ACEX Conservation Safety Awards.

The winning project was "Trípodex: Extendible Tripod Support", by Rafael Román Romera and Iván Rodríguez Chico.

The project sets out to improve site signing with an extendible tripod support to overcome any irregularities in the terrain and guarantee maximum visibility for road users, thus helping to keep road maintenance staff safe.

## INNOVATION PROJECTS IN 2017

### ELECNOR

#### Digital signalling project to provide smart information for the general public

This "smart cities" project examines the implementation of digital signals to optimise the information conveyed, and therefore enhance public safety.

#### Project to develop power distribution racks

The project studies the development and start-up of new infrastructures and telecommunications systems. It specifically addresses the implementation of power distribution racks containing IT systems and telecommunications networks, to distribute power and guarantee at least two hours of operation. Tools are also implemented to attain optimum working conditions, with HVAC and isolation functions.

#### Joint business platform

Project carried out between 2016 and 2017 to enhance and improve existing corporate tools, creating new upgrades and thereby improving the company's operating efficiency.

#### Respirometry

This project sets out to establish the relationships between operational and physical-chemical parameters and nitrogen status and performance in wastewater from the Teruel treatment plant, using the online respirometry system SENS-CON.



#### Mechanical calculation of brackets

The project set out to develop an IT application for swift mechanical justification of tubular brackets for overhead transmission lines. The application will be put to widespread use.

The project aims to develop a procedure for a mechanical calculation to justify the structure of the bracket on the basis of a given geometry. A mathematical model is created to assess the system's mechanical behaviour with different load statuses and in different ambient conditions. This procedure is then combined with the in-house tool for the geometric design of tubular brackets, which is now used in all high-speed projects.

It was carried out alongside the Bilbao Higher Technical School of Engineering's Department of Mechanical Engineering, UPV/EHU, and the Ipartek company.

#### Development of posts using fibreglass-reinforced plastic (FRP) for medium-voltage transmission lines

The main objective is design and development of posts built in fibreglass to enhance their properties on medium-voltage transmission lines.

### AUDECA

#### Phytotreatment of soils (with Elecnor, S.A.)

This project involves the treatment of polluted soils (usually polluted by hydrocarbons and HTF), using plants to remove pollutants.

#### Utilisation of wind energy in tunnels caused by traffic

This project focuses on the microgeneration of energy from road-bound vehicles. The first phase conducts a

survey to identify any technologies that can be used to generate energy from vehicle movements. The project will also define the main characteristics that must be met by the generating devices, analysing market availability or the basic characteristics of a prototype. The power generated can be used by the road's own facilities.

### HIDROAMBIENTE

#### Research work and development of enhancements for the treatment of industrial wastewater

The project considers a number of lines of action. The common denominator is the elimination of harmful or polluting substances in industrial wastewater, presenting new state-of-the-art solutions to provide a response to the problems posed.

### ENERFÍN

#### APPMARKET

This focuses on development and upgrades of a software tool to simulate and analyse the results of the various sales strategies devised by Enerfín, and add them to the automatic system used to send out offers. The objective is to apply them in the electricity market sales process.

#### Upgrade of the Malpica wind farm

This seeks to upgrade the Malpica wind power plant with an engineering survey that will boost the plant's total output and average production, using more efficient turbines and reducing their numbers.

## ELECNOR DEIMOS

Elecnor Deimos has carried through a number of technological initiatives, some of which are as follows:

### Flight operations systems (FOS) and mission planning

Analysis, design and implementation of various earth segment systems to optimise execution of the various Earth-observation space missions, and a number of scientific missions directly related to telecommunications systems, navigation etc.

### Space situational awareness (SSA)

Design and development of mechanisms and applications to extract and process space information for the purposes of identifying potential hazards in infrastructures orbiting the Earth.

### Engineering systems to analyse Earth observation missions

Development of software systems to optimise the purpose of space missions, to optimise communications between the components of the missions, and monitor and control space debris.



### Satellite navigation

Design and development of a range of mechanisms to determine the exact geographic coordinates, and other types of parameters that are independent of climate conditions, such as position altitude, the time anywhere on Earth (sea, land or air) etc.

### Technology platform to manage messaging and secure payment by mobile

Design and development of mobile apps to enhance management of messaging and payments by mobile, guaranteeing secure operation.

### Innovative technology for fleet observation, geolocation and management

Development and implementation of new tools and mechanisms to produce software applications with cutting-edge information technology for maritime monitoring and surveillance systems, management of radio assistance and control of fleets etc.



Control room in Puertollano (Ciudad Real), Elecnor Deimos

# Towards operating excellence (G4-DMA)

Elecnor's Integrated Management System is geared towards continuous improvement of the organisation, excellence and constant progress in terms of procedures and resources, covering Quality, Prevention of Occupational Hazards, the Environment, Energy Management and R+D+i Management.

In 2017 Elecnor upgraded its Integrated Management Policy and adapted its multisite certification (a single certificate for all Elecnor Infrastructure organisations) to the latest changes to the ISO 9001:2015 and 14001:2015 standards.

The Integrated Management Policy is based on three criteria:

- Precise knowledge of the type and dimensions of environmental impacts, customer requirements and risks to employees arising from Elecnor's activities and products.
- Strict compliance with current applicable legislation and any other requirements that Elecnor undertakes in all its markets.
- Improvement of competitiveness through R+D+i that will add value and enable Elecnor to gain edge against its competitors.

## Quality management focusing on the customer

Elecnor operates a quality management model based on continuous improvement, seeking to secure customers' full satisfaction by keeping ahead of their needs and surpassing their expectations.

In accordance with the above, the Group priority is to involve all its staff in the quality challenge, optimise management of production processes, and design and supply products and services as per customers' expectations.



### 2017 MILESTONES

Adaptation of the Quality Management System to the latest changes in the ISO 9001:2015 standard.

Implementation in organisations within the multisite of a new method for the control of non-quality costs and benefits generated.

Implementation of the Integrated Management System at Elecnor do Brasil and award of the certificate for Quality and Environment Systems in >66 kV substation and transmission line projects.

Monitoring of implementation of the Quality Management System at the Hawkeye and Elecdor subsidiaries, in North America and Ecuador respectively.

Successful external audit of the Group's subdepartments, departments and subsidiaries.

Work is ongoing to identify the most suitable IT tool to digitalise the Quality and Environmental System at corporate and site level.

### CUSTOMER SATISFACTION (G4-PR5)

One of Elecnor's priorities is to boost its customer satisfaction. It is for this reason that customer surveys are conducted to gauge their satisfaction and gain an insight into the most highly prized aspects and those which can be improved.

As part of the Group's Digital Transformation project, a new management software has been developed that will enable us to digitalise the entire process of creating, executing and tracking customer satisfaction surveys. This new web application will streamline the entire process, while simultaneously giving us a more global, up-to-date and innovative corporate image.

53

SURVEYS CONDUCTED

8.3 OUT OF 10

AVERAGE GLOBAL SCORE

#### ASPECTS MOST HIGHLY PRIZED

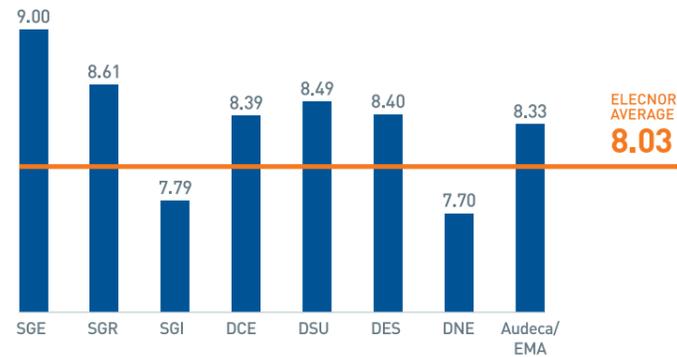
- Compliance with safety requirements
- Training and technical capabilities
- Level of communication and customer service

#### ACTIVITIES MOST HIGHLY PRIZED

- Power transformation facilities
- Adhorna Prefabricación



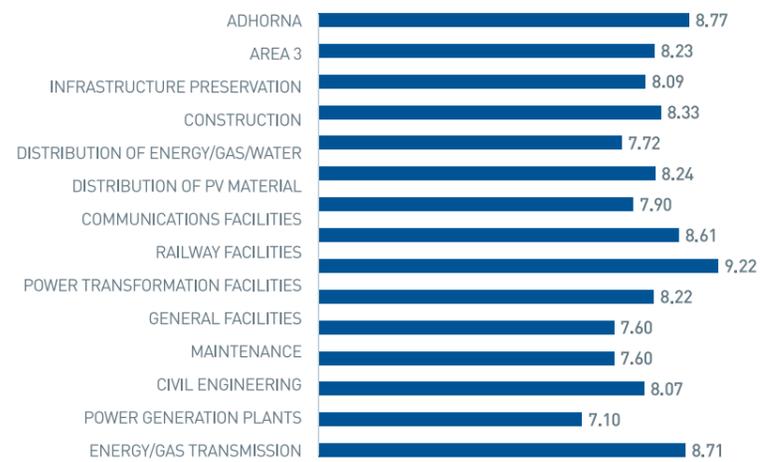
### GLOBAL AVERAGE SCORE PER ORGANISATION



### AVERAGE SCORE BY ASPECTS



### CUSTOMER SATISFACTION BY ACTIVITIES



### SUPPLIER MANAGEMENT (G4-DMA, G4-12)

Guaranteeing the highest possible levels of quality for customers calls for constant surveillance and control of the supply chain. Elecnor therefore gives priority to suppliers of materials and services which, in due consideration of their effects on the security and/or continuity of the service, may have a significant impact on the ultimate quality furnished to the customer by the Group. The Group has supplier approval and assessment systems in place to this end.

The company's approval process requires suppliers of materials or services to meet a number of quality criteria. 347 new suppliers were approved in 2017.

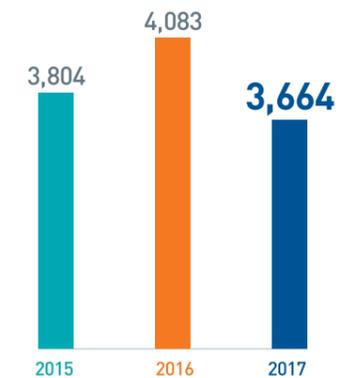
When suppliers have been approved, they will be reassessed annually depending on the type of supplier:

- Major suppliers of services and materials with purchase volumes exceeding EUR 100,000 in each of the last three years, with purchases in the last year and at least one of the two previous years.
- Other major suppliers of services and/or materials that do not achieve the purchase volume established.
- Suppliers with zero supply in the last three years.
- Suppliers with a favourable programme of corrective actions. Suppliers scoring zero following a complaint.

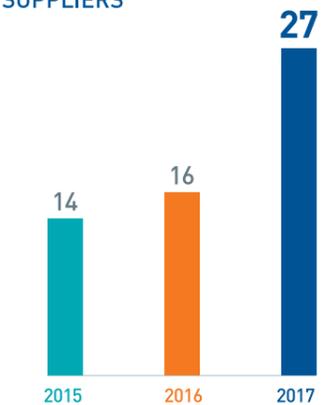
With respect to supplier claims, those scoring zero have to present a programme of corrective action. In 2017, 27 claims were submitted in relation to aspects primarily relating to materials, equipment and logistics management.

The Digital Transformation project identified improvements within the procurement process of the

### NUMBER OF APPROVED SUPPLIERS



### NUMBER OF COMPLAINTS TO SUPPLIERS



process for approval and assessment of suppliers, which will help digitalise management with Elecnor's suppliers, obtaining relevant information during the process of negotiations with the supplier.

# Environmental management

(G4-DMA)

Elecnor is committed to protecting the environment and to efficient consumption of energy resources in all its activities. These objectives have made respect for the environment and sustainability part of the bedrock of culture and values throughout the organisation.

A major portion of the activities carried out by the Group through its companies also focuses on the generation of renewable energy, conservation of natural habitats, water treatment or waste upgrades, among other aspects.

Elecnor has an Environmental Management System certified to ISO 14001, which defines a process for identifying, evaluating and recording the environmental aspects arising from Elecnor's activity in order to determine which of them are significant. The environmental aspects identified as most relevant are waste generation, impact on the natural environment, external noise, use of natural and energy resources and impact on flora and fauna.

In 2017 the Environmental Management System was adapted to the latest changes to the ISO 14001:2015 standard, and the AENOR Verified CO<sub>2</sub> Environmental Certificate was renewed as per ISO 14064-1.

The AENOR Energy Management Certificate was also renewed as per UNE-EN ISO 50001:2011.

## STRATEGY TO ADDRESS CLIMATE CHANGE

Climate change represents a challenge on which Elecnor has been working in recent years, and most particularly in the following areas:

- Since 2013 the company has measured the organisation's carbon footprint in accordance with internationally accepted standards.

- In 2015, 2016 and 2017 Elecnor renewed its "AENOR Medio Ambiente CO<sub>2</sub> Verificado" certificate under the ISO 14064-1 standard.
- It registered the organisation's carbon footprint in the Ministry of Agriculture and Fisheries, Food and the Environment's Carbon Footprint National Register (MAPAMA Register).
- It implemented a plan to reduce greenhouse gas emissions.

In 2017 Elecnor conducted a climate risk analysis which, along with the carbon footprint, enabled it to define a climate change strategy to reduce its impact, boost its resilience and make use of any opportunities arising from climate change to help it to grow sustainably as a group.

This entailed following a methodology based on the IPCC's AR5 report, which defines climate risk or opportunity depending on the interaction of climatic threats or dangers alongside the vulnerability and exposure of the geographic area.

From the analysis of climate change opportunities for Infrastructure business it transpires that electricity, gas, railways, construction and telecommunications are the areas that will sustain the greatest climate damage, and therefore the areas where Elecnor will encounter the greatest demand for its services; Elecnor has also conducted an analysis of the climate threats affecting it, and the potential impacts that may affect the Group in some way. Some examples are rising temperatures, heat waves, lower precipitation, flooding or rising sea levels, among others.

## MITIGATION THROUGH ACTIVITIES (G4-EN7)

Elecnor is helping to bring about a lower-carbon society through its wind power, solar PV, solar thermal, and hydroelectric projects, since these prevent the emission of greenhouse gases, the main culprits of climate change.

**Enerfín, the Group's wind subsidiary, estimates that the 2017 wind power production values for Spain, Brazil and Canada show that it has managed to prevent the emission of 515,241 tCO<sub>2</sub>**



Solar PV plant  
Uyuni (Bolivia)

## 2017 MILESTONES



### Hydroelectric project

Elecnor is coordinating and carrying out electromechanical assembly work for the Laúca hydroelectric power plant in **Angola** with a power output of 2,073 MW. This will be the country's largest production plant when it comes on stream.



### Wind power projects

- **Larimar II. Dominican Republic.** Power capacity: 50 MW.
- **Teguise. Spain.** Lanzarote. Power capacity: 9.2 MW.
- **Malpica. Spain.** Repowering of the 16.5 MW project in Galicia by Enerfín.



### Biomass projects

Elecnor has been awarded the construction of two biomass plants in **Portugal**, in Viseu and Fundão. They will be powered by woodfuel.



### Photovoltaic projects

- **Bungala 1. Australia.** Power capacity: 137 MWp.
- **Bungala 2. Australia.** Power capacity: 137 MWp.
- **Santiago Solar. Chile.** Power capacity: 115 MWp.
- **Uyuni and Yunchará plants. Bolivia.** Power capacity: 60 MW and 5 MW respectively.
- **MAF Parking Lot. Oman.** Power capacity: 5.9 MWp.

When complete, the biomass plants will save 88,400 tonnes of CO<sub>2</sub> emissions annually

It is estimated that the PV projects have saved 375,000 tonnes of CO<sub>2</sub>

## CALCULATING THE CARBON FOOTPRINT

Calculation of the carbon footprint identifies the largest sources of Elecnor's GHG emissions, and provides a global view of their impact on climate change. It also creates a necessary basis to address and continue courses of action to reduce the impact.

Elecnor has a tool for calculating its carbon footprint (CO<sub>2</sub>data) which allows each organisation to report the activity data required for the calculation and to obtain details of the greenhouse gas emissions associated with its activity.

Elecnor opted for an operating control approach to calculating our carbon footprint, where we account for 100% of greenhouse gas emissions (GHG) attributable to activities over which we have control; in other words, where we have the authority to introduce and implement policies at the operational level.

Thus, each organisation reports its electricity and fuel consumption data, broken down into offices, warehouses, sites and plants. After 2017, data for the calculation of fugitive emissions will be reported every three years, since their representativity is less than 1% of the total carbon footprint.

\*2014 is the base or reference year

### TREND IN tCO<sub>2</sub> EQUIVALENT EMISSIONS



The increasing trend continued in 2017. In absolute terms, emissions rose by 10% due to factors such as increased activity by the organisation, improved reporting of data and extension of the organisational scope of the survey. The Engineering Unit was included in calculation of the carbon footprint for the first time.

In relative terms, however, emissions per hour worked were reduced by 12%.

	2016	2017	CHANGE
Total emissions (t)	57,896	63,827	+10%
kgCO <sub>2</sub> e/hour	2.40	2.11	-12%

Elecnor's 2017 carbon footprint was 63,827 tonnes of CO<sub>2</sub>e, of which 78% were Scope 1 emissions, i.e. associated with fuel consumption. In terms of the type of facility where they were generated, building projects accounted for 74% of the total.

### % EMISSIONS BY SCOPE



**Scope 1.** Direct emissions produced by the company, usually by burning fuel  
**Scope 2.** Emissions associated with electricity consumption

### % EMISSIONS BY TYPE OF FACILITY



ORGANISATION	EMISSIONS (TCO <sub>2</sub> E/YEAR)	% OF TOTAL
Celeo	12,134.38	19.01%
Central Business Division	10,177.86	15.95%
Major Networks Unit <sup>1</sup>	7,720.84	12.10%
Elecnor Chile	6,717.06	10.52%
Energy Unit	5,119.09	8.02%
North-East Business Division	4,228.78	6.63%
South Business Division	3,926.64	6.15%
East Business Division	3,616.11	5.67%
Engineering Unit <sup>2</sup>	3,254.30	5.10%
Audeca, S.L.U.	2,726.13	4.27%
Enerfín Sociedad de Energía, S.L.	2,000.58	3.13%
Elecnor do Brasil	1,299.73	2.04%
Aplicaciones Técnicas de la Energía, S.L. (ATERSA)	246.14	0.39%
Jomar Seguridad, S.L.	193.12	0.30%
Elecnor Deimos	171.35	0.27%
Corporate offices	136.73	0.21%
Ehisa Construcciones y Obras, S.A.	76.89	0.12%
Hidroambiente, S.A.	57.54	0.09%
International Development Sub-division	23.84	0.04%

<sup>1</sup> Includes the footprint of Adhorna Prefabricación

<sup>2</sup> The Engineering Unit was included for the first time, with offices in Madrid and four projects in Mexico (Empalme II), Portugal (Fundão & Viseu) and Algeria (BOP Bellara).

## INITIATIVES FOR REDUCING EMISSIONS (G4-EN19)

Elecnor has a 2017-2019 plan to gradually reduce GHG emissions in such a way that emissions per hour worked are brought down from 2.44 to 2.37 kgCO<sub>2</sub>e/hour.

The plan has established certain measures such as optimisation of service routes, efficient driving training

courses, awareness and energy savings plans, optimisation of electricity consumption for lighting purposes, use of more efficient PV cells and changes to fleet vehicles, among others.

## INITIATIVES FOR REDUCING EMISSIONS (G4-EN3)

In general, consumption was up in 2017 with respect to the previous year due to an increase in activity.

CONSUMPTION	2016	2017
Electricity (kWh)	34,644,898	40,666,077
Fuel (litres)	15,048,625	16,694,341
Water (m <sup>3</sup> )	2,214,973	1,615,048
Ordinary paper (kg)	49,179	35,214
Recycled paper (kg)	38,710	47,252
Non-hazardous waste	23,845,409	39,218,605
Hazardous waste	217,450	220,360



Public lighting in Santander  
(Cantabria)

# Energy management

From the point of view of business and services, energy management is one of the Group's areas of activity. In fact, Elecnor is certified as an energy services company (ESCO), which allows it to run energy efficiency improvement projects. **(G4-EC2, G4-EN7, G4-EN27)**

As an energy services company, in 2017 Elecnor was awarded contracts for management, renewal and maintenance of public street lighting with energy efficiency criteria in the Spanish locations of Santander and Medio Cudeyo (Cantabria) and Petra (Majorca). This involved the replacement of 25,236 light fittings with fittings with higher energy efficiency, and estimated installed power savings of over 70%.

By way of Facilities and Maintenance, an energy efficiency project was carried out for AENA at Adolfo Suárez Madrid-Barajas Airport to replace the UPS system and renew batteries to boost energy efficiency.

Work also continued on the VIPS Group's internal lighting reform project, saving the equivalent of more than 1,832 tonnes of emissions of CO<sub>2</sub> per year.

An energy management project (electricity, gas and water) was carried out at two operating facilities run by Madrid's public transport company Empresa Municipal de Transportes (Entrevías and Carabanchel). The project guarantees energy and water savings. Specifically, the savings were 19% energy and 5% water for Entrevías, and 30% energy and 5% water for Carabanchel.

From the point of view of internal management, energy consumption rose by 14% due to the Group's increased activity in 2017, but the consumption/hours worked ratio performed well and fell by 26%.

ENERGY CONSUMPTION	CONSUMPTION 2016 (TJ)	CONSUMPTION 2017 (TJ)	CHANGE
Natural gas	68.2	56.54	-17%
Diesel	39.55	134.42	240%
Petrol	25.22	22.79	-10%
Diesel	463.31	447.37	-3%
Biodiesel	0.00	11.52	N/A
Electricity	124.72	145.08	16%
Other fuels	2.52	5.10	102%
<b>TOTAL</b>	<b>723.52</b>	<b>822.80</b>	<b>14%</b>

YEAR	Nº HOURS WORKED	ENERGY INTENSITY (MJ/H)	CHANGE
2016	23,227,006	31.15	
2017	35,761,308	23.01	-26%

## ENERGY EFFICIENCY AND SAVINGS INITIATIVES (G4-EN6)

Installation of measurement units to obtain data on the behaviour of various facilities

Implementation of a control system for proper management of the HVAC system

Optimisation of tariff conditions for electricity bills

A change of fleet, bringing in new lorries equipped with fuel-saving technology

The incorporation of telematic control systems in new vehicles to improve use of the technology and driving behaviour

Driving mentoring programme

Centralised purchase of energy

Replacement of conventional lighting with LEDs

An awareness-raising and energy-saving plan aimed at fostering responsible habits

Acquisition of new and more efficient air conditioning systems

## ENVIRONMENTAL AWARENESS

A number of awareness campaigns have been organised in relation to Elecnor's commitment to protection of our surroundings, respect for the environment and efficient consumption of natural resources.

One of the campaigns designed posters for work centres to convey the Group's commitment and raise greater environmental awareness among employees. Messages homed in on reduction of waste, optimum use of paper and ink, lower energy consumption and monitoring of water consumption.

Elecnor also marked World Environment Day with a video demonstrating its environmental commitment, with a particular emphasis on combating climate change.

Several campaigns were organised at the Audeca subsidiary on the benefits of LED lighting and the positive environmental repercussions of driving efficiency.

### Driving efficiency

This creates a way of driving which is more comfortable for drivers, reduces road hazards, reduces fuel consumption, the costs of vehicle maintenance, and atmospheric emissions.

This style of driving is governed by a number of simple and effective rules that make use of the possibilities offered by modern car engines.

At Audeca, heavy goods vehicle drivers have received training in efficient driving.

The programme is taught by professionals operating in the sector. It is detailed, practical and continuous in terms of vehicle handling and mastery of its technology. Lorries have been fitted with a telemetry unit which enables the instructor to analyse the way in which each trainee drives (sudden braking or accelerating, tickover time etc.), and to contact them to help reduce consumption, boost safety and make their driving more professional. The data are recorded in reports which grade trainees in driver energy categories.

# Management of biodiversity and protection of the environment

(G4-DMA, G4-EN11, G4-EN12, G4-EN13)

Some of Elecnor's projects are carried out in protected natural spaces or areas in close proximity to spaces with a great natural or environmental value. Some of these projects, especially those carried out by the Audeca subsidiary, seek to improve and preserve these protected areas.

In general, the projects carried out are associated with the implementation of an environmental management system in accordance with the ISO 14001 standard, identifying and appraising both direct and potential environmental impacts. On some occasions, depending on the scope of the work, a project also has an associated environmental monitoring plan with regular controls of impacts and the mitigation measures taken.

In the case of Celeo in Chile, for example, the most significant environmental impact is associated with cutting back, pruning and clearing vegetation for the 2x500 kV Charrúa-Ancoa project. This impact was appraised in the environmental process carried out prior to construction work, establishing corrective and compensatory measures to mitigate the effects.

Another example of the Group's management of effects on biodiversity may be perceived at Enerfín. Before authorisation can be issued for the construction of a wind power plant, developers must conduct an appraisal of the potential impacts of the project on its immediate surroundings, including flora and fauna. Work is carried out with specialist groups to guarantee development that is compatible with the existing locations and habitats.

During the pre-operational phase, it is normal practice for consensuated surveys with a minimum duration of one year to be drawn up with the authorities to characterise the bird/fauna species/populations in the area and their patterns of behaviour (nesting areas, grazing areas, flying heights etc.).

The results of the surveys are decisive for the environmental body to consider the feasibility of the

project. Any impact can be prevented or reduced by proper location/relocation of wind turbines.

Environmental monitoring is carried out during the construction phase to prevent potential impacts caused and assess the suitability of the measures proposed. If any impacts not initially foreseen are identified (nesting areas, presence of species not included in the inventory etc.), proper measures are established to reduce them, offset them or eliminate them.

When the facility commences operations, a proper environmental vigilance programme conducts an assessment of the actual impacts, and appropriate measures are taken if necessary.



## 2017 MILESTONES



### Malpica wind farm (La Coruña, Spain)

The Malpica wind farm is partially located within the territory of the "Red Natura" programme, and the facility was repowered in 2017. Some of the action taken by Enerfín in the course of its site work was as follows:

- **Noise monitoring plan**, particularly focused on periods of maximum site activity and blasting.
- **Hydrological monitoring plan**, to guarantee proper functioning of the hydrographic network.
- **Monitoring plan for birds/fauna and bats**, this consists of a search for nests before work begins, along with censuses of bird populations, birds of prey observation posts, nest and brood monitoring, detection of bats etc.
- **Morphological**, edaphic and vegetation restoration plan, to ensure optimum regeneration of vegetation cover.



### Conservation and maintenance of natural protected areas in Ávila province (Spain), and protection of Spanish woods

Audeca maintains, preserves and repairs public infrastructures in Ávila's natural spaces. The project includes signs, recreational areas, observation points and shelters, among other examples; in addition to the cleaning of protected natural areas, conservation and maintenance of the natural surroundings, species and habitats, and surveillance, information, monitoring of species and habitats and access control.

Alongside the ASERPMA and ASEJA associations it is involved in the "Juntos por los Bosques" initiative, which acts as a mouthpiece for more than 30 bodies representing the Spanish forestry sector.



## PARTICIPATION IN PROJECTS WITH RURAL SCHOOLS IN CHILE

The Group also operates programmes to raise awareness of the importance of maintaining biodiversity. Specifically, Celeo was involved in two projects with rural schools in Chile in 2017:

- **Bird identification workshop.** This project set out to bring birdlife to the pupils of rural schools with a talk on the subject and a birdlife guide produced by Celeo Redes.
- **Birdwatching club.** This had a theoretical phase to convey knowledge of birds, and a practical phase of bird recognition techniques.

# Commitment to society

(G4-DMA, G4-EC7, G4-EC8)

Elecnor's activities make a contribution to transformation and help bring about some of the changes society needs. As it facilitates progress and welfare through the implementation of infrastructures, it helps reduce the energy gap, assists in bringing about a lower-carbon society, and guarantees access to and availability of water.

## The Elecnor Foundation: 10 years helping to build a better world

Since it was created 10 years ago, the Foundation's work has related to Elecnor's own activities as a business, carrying out its projects in countries in which Elecnor operates, with a particular focus on the most disadvantaged communities and young talent studying at universities and on professional training courses.

Another of the Foundation's objectives is to foster the social commitment and participation of Elecnor's employees through corporate volunteer schemes.

Most of the projects set up in recent years are still ongoing with maintenance work, and even through extension of the initial scope.

## SOCIAL INFRASTRUCTURE PROJECTS

### THE SECOND STAGE OF "LIGHTS FOR LEARNING" IN URUGUAY

The Elecnor Foundation, the Organization of Ibero-American States (OEI) and the Administración Nacional de Usinas y Trasmisiones Eléctricas (UTE) company signed an agreement in 2014 to jointly implement the "Luces Para Aprender" Project in Uruguay, supplying solar-produced electricity and Internet to 82 rural schools in the country. This made Uruguay the only country in Latin America with 100% of its schools electrified by year-end 2014.

Following installation of the solar panels, some of the 82 schools were gradually connected to the grid by the rural electrification project undertaken by UTE. At the end of 2016 the Elecnor Foundation, OEI and UTE undertook to relocate PV facilities which were falling into disuse, and commencement of the second stage of the project was formalised by an addendum to the agreement.

In 2017 the project continued when the panels fitted to some schools which were no longer used since they had been connected to the grid were re-used by households and production activities.

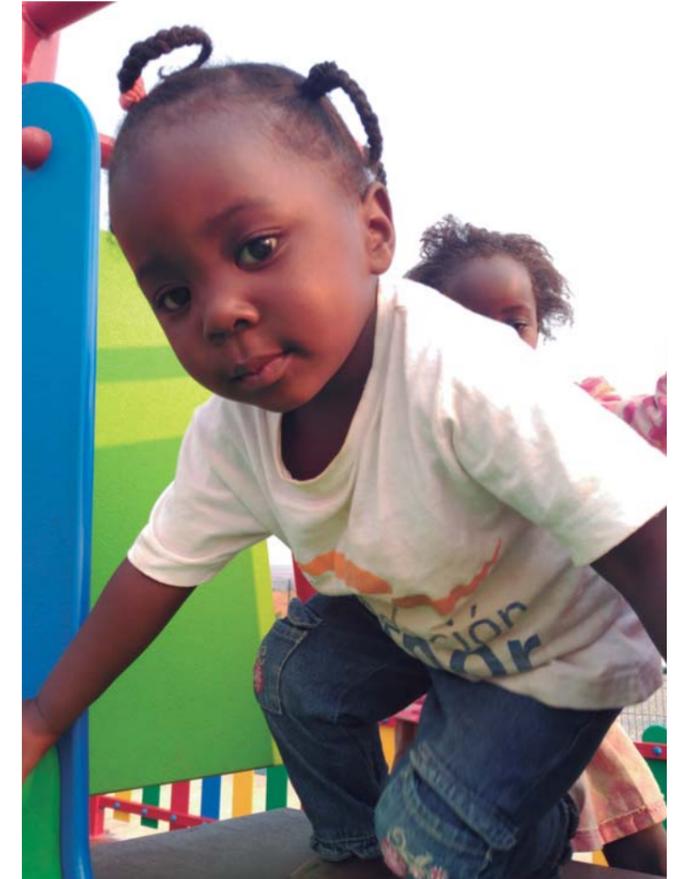
During this second phase of the project, the OEI, UTE and the Elecnor Foundation, along with the local authorities in Rocha and the National System of Protected Areas (SNAP), installed solar units in "La Cocina de la Barra", an area around the Rocha Lagoon. This project helped the Apalco small-scale fishing community, which is now able to carry on its activities in this protected area in a more sustainable and professional manner.

### SINERGIA PROJECT, CHILE

The Sinergia Project arose from a partnership between the Elecnor Foundation and Chile's Institute of Agricultural Development (INDAP), part of the Ministry of Agriculture, with the aim of bringing water and power to this community in Totoral (Atacama desert), to the benefit of some 40 families there.

Following implementation of the project, the Elecnor Foundation maintained its commitment and involvement with regular monitoring and assistance by volunteers who travelled to the area from several countries in which the Group operates.

Totoral's level of development has risen because the basic needs of the community (drinking water, water for crops and electricity) have now been met. It should be pointed out that the Sinergia project was planned in due consideration of environmental and cultural aspects and the real needs of society.



The project has helped revitalise the small village of Totoral. Numbers at the local school have now risen from 2 to 10 pupils, and 2 communal businesses have started up.

The project further demonstrated its vitality and full validity when funds were obtained to provide a safety system for the plant and the control room.



Project H2OME  
(Angola)

#### PROJECT H2OME, ANGOLA

2017 saw implementation of the first operational facility of Project H2OME, an innovative response to the shortage of drinking water in developing countries.

The facility in Angola was designed to supply drinking water to 10,000 people in Gove in Huambo province.

H2OME is a versatile and sustainable solution developed by Elecnor's R+D+i unit. It is made from disused shipping containers that are recovered, redesigned and restored to create a two-level mobile structure that is easy to transport and install.

Inside, H2OME contains a water purification plant and a large multi-purpose space for community use which has a 100 m<sup>2</sup> audiovisual library with more than 3,000 books, computers, DVD system and a television screen to show documentaries and films as an enhancement of students' education.

Following the installation of H2OME in Angola, water now reaches the Gove school and its health centre directly, and it is also distributed via eleven sources throughout the municipality to be used by as many people as possible.

#### "STARTING OUT AND LEARNING IN DIGITAL" (PEAD) PROJECT, NICARAGUA

The aim of this project, completed in June 2017, is to improve education and training for local people, in particular children and teenagers from the Miskita ethnic group, through the sustainable use of ICTs.

PEAD directly benefited 3,778 people from six remote communities in Francia Sirpi in northern Nicaragua. This is the country's most vulnerable region, with 71% severe poverty and an area with a large indigenous population. The Miskita are the largest ethnic group, representing 91% of the communities included in the project.

The digital kiosk is a community space set up in a classroom attached to the community school which offers access to basic telecommunications services, i.e. telephony and internet, and educational materials.

Back-up battery systems were installed for periods when there is insufficient solar radiation, to power the kiosk for three days if required. There is also a satellite connector which provides four hours of data downloading per day, telephone communication, a mobile phone recharging facility, and a document printing/scanning facility.

#### COOPERATION AGREEMENT WITH "AYUDA EN ACCIÓN", LATIN AMERICA AND AFRICA

In 2017 the Elecnor Foundation and Ayuda en Acción signed a framework agreement whereby both organisations undertook to cooperate to identify and carry out projects.

The projects will be located in Latin America and Africa, continents where both organisations have considerable experience in implementing cooperation and development projects.

Water, use of renewable energy, basic housing and the sustainable management of natural resources are the main areas addressed.



#### CORPORATE VOLUNTEER SCHEME

The Fourth Corporate Volunteer Scheme was set up in 2017 as part of Project H2OME in Gove (Angola). The four volunteers from various areas within the Group combined aspects of technical assistance with assistance in educating local children, using the facilities of the audiovisual library used by the H2OMEscheme.

The work planned for technical volunteers focused on checks, repairs and fine-tuning of the facilities. By way of a contribution to children's education, the Elecnor Foundation generated a guide of games and workshops for education in Angola.

## TRAINING AND RESEARCH PROJECTS

Work continued in the course of the year on training and research in connection with all areas of engineering, building alliances and agreements with universities and education centres to encourage the development of knowledge and its practical application.

### THE ELECNOR FOUNDATION RENEWABLE ENERGY AND ENERGY EFFICIENCY CHAIR AT THE POLYTECHNIC UNIVERSITY OF MADRID'S SCHOOL OF INDUSTRIAL ENGINEERING (ETSII)

The Chair organises a range of activities with the aim of fostering research projects and professional meetings with sector players, establishing the major trends in the energy sector over the coming years.

#### II Laboratory of Ideas on Renewable Energy

This version focused on the theme "Renewable energies must overcome the challenge of volatility of market prices".

Its conclusions included the observation that long-term fixed-price contracts and the internalisation of environmental costs are key factors in the success of a modern energy system. It was also noted that sources of renewable energy, especially wind power and solar PV power, are now a reality, and their costs and technological maturities enable them to compete on a level playing field with conventional generating technologies.



III Laboratory of Ideas on Renewable Energy.  
Elecnor Foundation

#### Research projects

Three research projects were carried out in 2017, which are described below:

- **Combined-cycle:** optimisation of combined-cycle plants, in a bid to replicate the thermodynamical model of a combined cycle.
- **Optimisation of PV processes:** an analysis of all the processes involved in the construction of a PV plant.
- **Efficiency in Ghanaian hospitals:** this project arose in association with the 'Back-Up Systems' project to boost the electricity supply to six hospitals and three clinics in the country. The project also pursues energy rehabilitation for two of the health centres by means of an analysis of the current systems and of their energy demand, in a bid to reduce consumption.

By year-end 2017, a large portion of the characterisation of both hospitals had been completed and the ETSII had produced a proposal of the initial measures to be taken.

### V EDITION OF THE SPECIALIST POST-CYCLE COURSE IN MEDIUM/LOW-VOLTAGE ELECTRICAL FACILITIES

The Elecnor Foundation, in conjunction with the Salesianos Deusto College (Bilbao), sponsors this pioneering course in the field of professional training. The Foundation is involved in the design of this project and in the financing of the equipment required in the College's laboratory.

This course provides a great opportunity for young vocational training students of electricity distribution in the standard grade to complement their theoretical and practical training in this sphere.

The 2017 event was attended by 13 people, and 82 hours were taught ranging from theoretical classes, workshop sessions and a visit to Elecnor's facilities.

### AWARDS AND GRANTS PROGRAMME WITH THE SCHOOL OF INDUSTRIAL ENGINEERING AT VALENCIA POLYTECHNIC UNIVERSITY

Four grants were issued in 2017, along with a first prize for the best dissertation.

The Elecnor Foundation awarded diplomas on the Dissertation Programme for Electrical Engineering, Energy Efficiency and Renewable Energies.

The Foundation also awarded a first prize for the best project submitted. The award went to M<sup>a</sup> Esther Olmos García for her work on energy efficiency at hospitals. The project was praised for its originality, innovation, applicability and high quality.



### CLASSROOMS AND FOOTBALL FOR EDUCATING ANGOLAN YOUTHS IN VALUES

Elecnor has now completed a trajectory of 25 years in Angola and commemorated the anniversary by boosting its links with the country, its institutions and people.

A cooperation agreement was signed by Santos Fútbol Club de Luanda, Elecnor Angola and the Elecnor Foundation to invite three young Angolans to study Basic Professional Training at the Salesianos de Deusto school in Bilbao in 2017-18, with comprehensive academic and sport instruction.

To complete the programme, the initiative included the chance to train every afternoon with the Arenas Club de Getxo's youth team, which is officially sponsored by Elecnor.

### SUSTAINABILITY, CSR AND SOCIAL INNOVATION

As part of the cooperation agreement between the Elecnor Foundation and Deusto Business School to set up and organise joint forums and training activities in the fields of sustainability, CSR and social innovation, an agreement was approved for membership of Deusto University's 'Cities Lab Katedra' Chair's Sponsorship Council. The objective is to set up sustainable development projects.

# Other social initiatives

[G4-15]

In addition to the work of the Elecnor Foundation, Elecnor carries out many other initiatives in communities in which it operates. Some of the main initiatives in 2017 included the following:



Porto Alegre Symphony Orchestra Concerts (Brazil). Enerfin



Padre Josimo Tavares Library (Brazil). Celeo



Visit to L'Érable wind farm (Canada). Enerfin

## BRAZIL

In late 2016, Ventos do Sul, Enerfin's operational subsidiary in Brazil, entered into agreements to support and carry out social projects in 2017. The projects were approved by the Brazilian government to foster culture, sport and social investment.

Some of the projects were as follows:

- **Museum night.** Project to encourage culture with the inauguration of culture museums in Porto Alegre. The initiative brought in 52,000 people on short guided tours.
- **Porto Alegre Symphony Orchestra Concerts.** Concerts in several towns in Rio Grande do Sul. The main event was a concert commemorating 160 years of political emancipation in Osorio, attended by approximately 1,000 people.

- **Audiovisual event, "Cine Santander Cultural".** This is one of Rio Grande do Sul's largest cultural initiatives. It was supported by film critics and regional leaders, and also served to showcase Spanish brands in connection with an exhibition of the Spanish film industry.

- **"Everyone building-Aldeias Infantis SOS Brasil".** A social project in support of the rights of children and teenagers, through the construction of a sports facility for 46 children in care and also for the neighbouring community of Sarandi.

At the end of 2017 Ventos do Sul entered into agreements to support and implement new projects throughout 2018.

In 2017 Celeo completed the social development project at the Father Josimo Tavares Agricultural Technical School, Bom Jesus das Selvas, in Maranhão state. Improvements were made to teaching quality, infrastructure and the school's regulations and production offer, and revenue was generated to reduce dependence on external funding.

Celeo was also involved in several projects in towns crossed by the 500 kV Estreito-Fernão Dias transmission line:

- **"Let's Save the Planet" Project,** in Monte Santo de Minas, state of Minas Gerais. The project consisted of construction of a classification and composting plant, and implementation of a selective collection system.
- **"A Good Life in Caetetuba" Project,** in Atibaia, São Paulo state. The aim is to breathe new life into the railway station for an assistance facility and a social organisation to cater for an approximate highly vulnerable population of 20,000, promote professional qualifications, and refurbish Plaza António Scavone.

## CANADA

Following a successful initial year of guided tours around L'Érable wind farm, organised jointly with the local tourist office, Enerfin also began tours for schools with wind power workshops.

In 2017 a total of 222 children went on the visits and workshops, and a further 600 people went on the guided tours.

# Integration and respect for the environment (G4-DMA, G4-S01, G4-S02, G4-S011)

In 2017, Elecnor continued to carry out projects in areas close to indigenous communities, or with a large number of stakeholders with differing points of view and interests. In this context, the Group puts the emphasis on dialogue, communication, respect and proper management of impacts.

Enerfín has carried out a number of initiatives in this regard.

**CANADA**



As part of activities to promote its projects in the province of Saskatchewan (Canada), meetings were held with two autochthonous nations with interests in the area, and these were attended by the respective leaders of each nation, their advisors and economic development committees.

The encounters served to compile remarks by both nations on the projects, and to examine the possibilities of cooperation in this regard as possible service providers during the phases of development, construction and operation, or as potential investors from the economic standpoint.

**COLOMBIA**



In 2016 Enerfín signed lease agreements in Colombia with five indigenous communities living on La Guajira Peninsula. The preagreements established social measures to improve the communities' standard of living.

For example, in the Aipir indigenous community (Uribia, upper and central Guajira) an agreement was struck to carry out projects to the benefit of the community, mainly consisting of water extraction from subsoil to be used by the community, to implement agricultural production projects and, during the pilot stage, projects involving hydroponic and aquatic crops.

Work continued in 2017 to implement these social measures.

One of the bodies consulted by Celeo concerning the environmental portion of its projects is the National Indigenous People's Corporation.

However, in 2017 none of the projects affected or was located in the area of influence of any indigenous community.

# Participation in associations and at forums

**(G4-16)**

## PRESENCE IN ASSOCIATIONS

### SPAIN

- AAEF, Asociación Andaluza de Empresas Forestales
- ACEX, Asociación de Empresas de Conservación y Explotación de Infraestructura
- AEDYR, Asociación de Desalación y Reutilización del Agua
- AEE, Asociación Empresarial Eólica
- AEEFOR, Asociación Extremeña de Empresas Forestales y de Medioambiente
- AET, Asociación Eólica de Tarifa
- APECYL, Asociación de Promotores de Energía Eólica de Castilla y León
- APPI-Almussafes, Asociación de Propietarios del Parque Industrial de Almussafes
- ASAGUA, Asociación Española de Empresas de Tecnologías del Agua
- ASEJA, Asociación Española de Empresas de Jardinería
- ASERPUMA, Asociación de Empresas Restauradoras del Paisaje y Medio Ambiente
- ATC, Asociación Técnica de Carreteras y Asociación Mundial de Carreteras.
- Comité de Energía del Círculo de Empresarios.
- EGA, Asociación Eólica de Galicia
- enerTIC Platform
- ESF, Energía sin Fronteras
- FEMEVAL, Federación Metalúrgica Valenciana
- ITE, Instituto Tecnológico de la Energía
- PTA, Plataforma Tecnológica del Agua
- SERFOGA, Asociación de Empresas de Servicios Forestales de Galicia
- UNEF, Unión Española Fotovoltaica

### BRAZIL

- ABEELICA, Asociación Brasileña de Energía Eólica
- ABIDIB, Associação Brasileira da Infraestrutura e Indústrias de Base
- ABSOLAR, Associação Brasileira de Energia Solar Fotovoltaica

- Official Spanish Chamber of Commerce in Brazil
- CIGRE, Comitê Nacional Brasileiro de Produção e Transmissão de Energia Elétrica
- COGEN, Associação da Indústria de Cogeração de Energia

### CANADA

- AQPER, Association Québécoise de Producteurs d'Énergie renouvelable
- Canada-Spain Chamber of Commerce
- Chambre de Commerce et D'industrie Bois-Francis/Érable
- CANWEA, Canadian Wind Energy Association
- Technocentre Éolien du Quebec

### MEXICO

- APER, Agrupación Peninsular de Energías Renovables
- AMDEE, Asociación Mexicana de Energía Eólica
- Energy Committee, Spanish Chamber of Commerce in Mexico

### USA

- AWEA, American Wind Energy Association

### CHILE

- ACERA, Asociación Chilena de Energías Renovables
- CAMACOES, Official Spanish Chamber of Commerce in Chile
- CIGRE, International Council on Large Electric Systems
- Eléctricas A.G, Asociación Gremial de Empresas Eléctricas



Aquatech Fair (Mexico)

## PRESENCE AT FORUMS

### SPAIN

- **2nd "Mundura Begira" Congress, San Sebastián.** More than 500 businesses attended this Congress, which discussed global trends and changes likely to affect the globalisation of SMEs, cybersecurity and the necessary professional capacities and aptitudes of people spearheading globalisation projects within businesses.
- **Smart Cities Fair, Barcelona.** This is the major smart cities fair in the services sector, and is attended by the major players worldwide.
- **Innovation and New Technology Fair, Sevilla.** This was organised by the provincial government in Sevilla, to report on the latest offers by companies working in the IT and new technology sector. It also brought businesses and public authorities together to boost innovation and the application of new technologies in local public administration and the growth of the digital economy in the province of Sevilla.
- **Laboralia Congress on Occupational Health and Safety in Valencia.** This eighth congress featured exhibitors showcasing the last word in products and services, and a number of activities and exhibitions in connection with occupational hazards.
- **Asteroid Day.** Elecnor Deimos joined this international movement to raise awareness of the dangers of asteroids and the efforts of the scientific community to prevent future strikes.

### AUSTRALIA

- **International Aeronautical Congress.** Elecnor Deimos was present at the 68th International Aeronautical Congress, one of the most important space events of the year, with a number of talks on its latest research into travel beyond the Earth's atmosphere. The event was held in Adelaide, Australia, and brought together some of the leading lights of the international space industry. In total, it was attended by over 4,500 participants from 84 countries.

Elecnor Deimos' head of the Security and Operations Area attended the section on industrial IT security.

### MEXICO

- **Aquatech Fair, Mexico.** Hidroambiente, the Elecnor subsidiary specialising in different water treatment solutions, was present at the Aquatech Fair, the main event for water technology companies from all over the world. At the Mexican event, the keynote was exploration of opportunities for business in the country.

### BRAZIL

- **XXIV Seminário Nacional de Produção e Transmissão de Energia Elétrica** through Elecnor do Brasil.



Meteor Crater located in western Arizona (US). 50.000 years old. 30 June Asteroid Day  
DEIMOS-2 image @ Deimos Imaging, an UrtheCast company

# Responsible Management



# Corporate governance

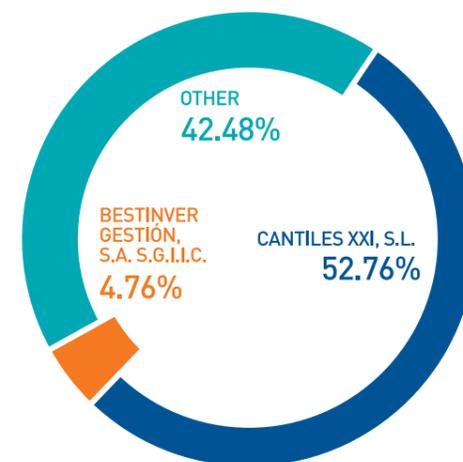
Elecnor meets requirements pursuant to Spanish Capital Companies Law and the Code of Corporate Governance for Listed Companies issued by the Spanish Stock Market Commission<sup>1</sup>.

## Shareholder structure

Most Elecnor, S.A. capital is controlled by a group of shareholders comprising ten family groups that act as the company's decision-making and oversight unit, through the company. (G4-7)

"Other" includes all shareholders holding less than 5% of the share capital together with Elecnor, S.A. treasury shares, which stood at 2.66% in 2017.

SHAREHOLDER STRUCTURE



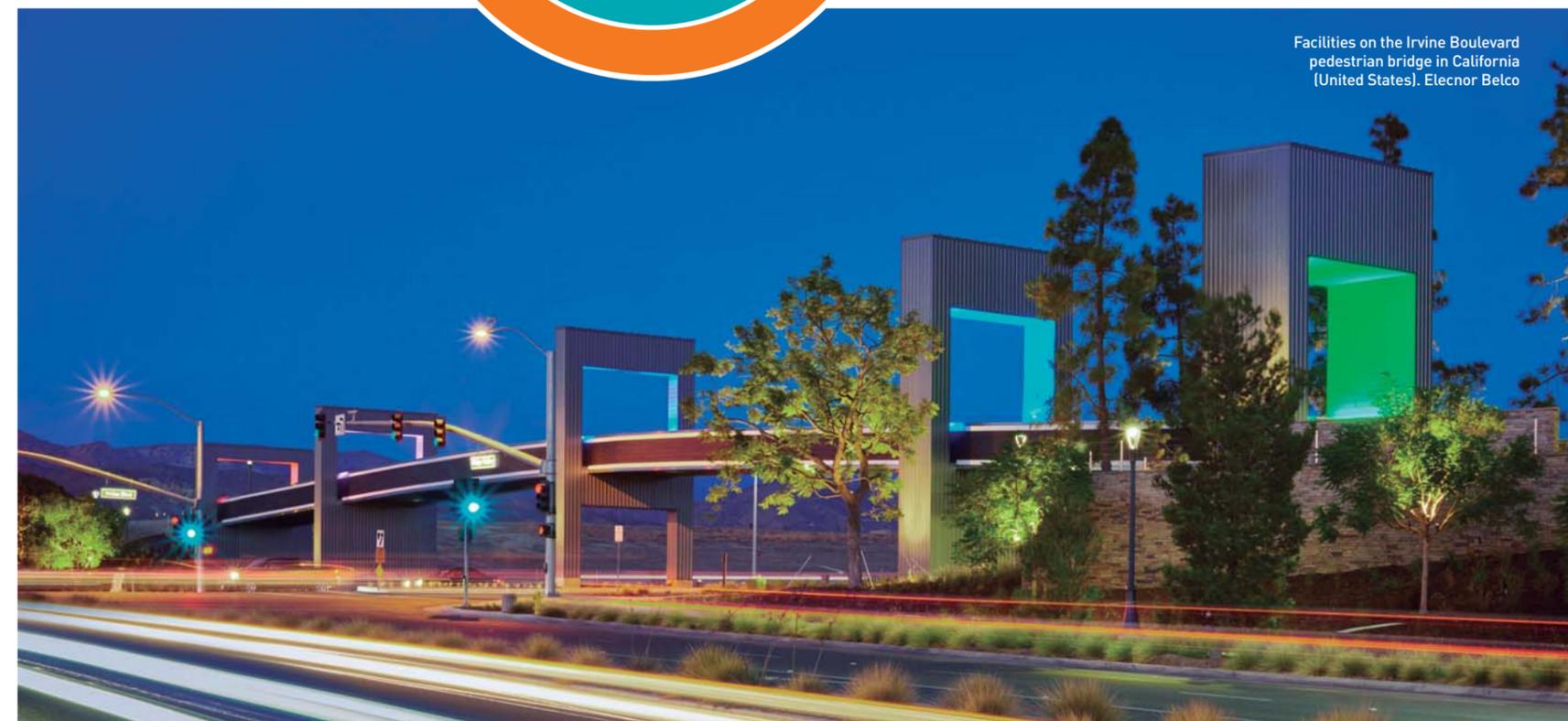
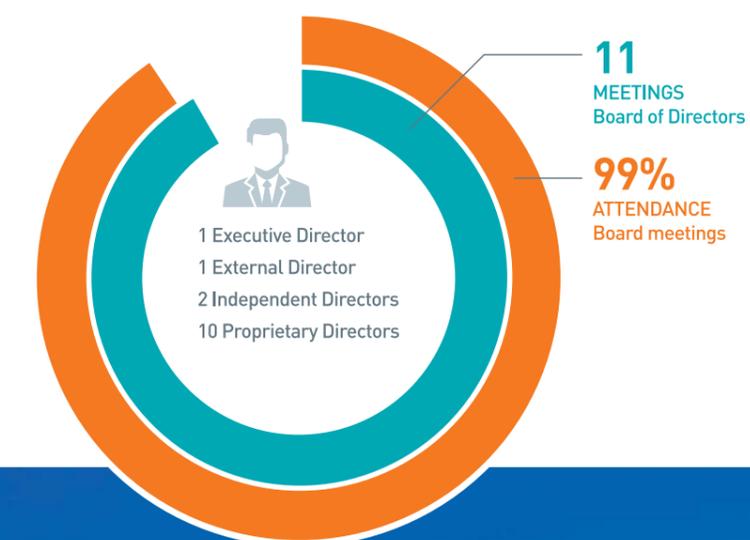
<sup>1</sup>This information is available in the Corporate Governance section under the Investors heading on the website, [www.elecnor.com](http://www.elecnor.com)

## Governance Bodies (G4-34)

The parent company's corporate governance bodies are the General Shareholders' Meeting and the Board of Directors. The Executive Committee, the Audit Committee and the Appointments and Remuneration Committee report to the Board of Directors.

The General Shareholders' Meeting was held on 16 May 2017, with 80.15% attendance.

BOARD OF DIRECTORS (G4-LA12)



Facilities on the Irvine Boulevard pedestrian bridge in California (United States). Elecnor Belco

DIRECTOR'S NAME	POST ON BOARD	CATEGORY	LAST DATE APPOINTED
Jaime Real de Asúa Arteché	Chairman	Proprietary	23/05/2012
Fernando León Domecq	Deputy Chairman	Proprietary	23/05/2012
Juan Prado Rey-Baltar	Deputy Chairman	Proprietary	21/05/2014
Joaquín Gómez de Olea y Mendaro	Secretary	Proprietary	18/05/2016
Cristóbal González de Aguilar Alonso-Urquijo	Deputy Secretary	Proprietary	20/05/2015
Fernando Azaola Arteché	Board member	External	23/05/2012
Miguel Cervera Earle	Board member	Proprietary through co-opting	27/10/2017
Isabel Dutihl Carvajal	Board member	Independent	20/05/2015
Juan Landecho Sarabia	Board member	Proprietary	23/05/2012
Rafael Martín de Bustamante Vega	Board member and CEO	Executive	16/05/2017
Miguel Morenés Giles	Board member	Proprietary	23/05/2012
Gabriel de Oraa y Moyúa	Board member	Proprietary	23/05/2012
Rafael Prado Aranguren	Board member	Proprietary	23/05/2012
Emilio Ybarra Aznar	Board member	Independent	20/05/2015

A vacancy emerged in 2017 following the death of Gonzalo Cervera Earle, and Miguel Cervera Earle was co-opted to replace him.

## BOARD COMMITTEES

### EXECUTIVE COMMITTEE

The primary purpose of the Executive Committee is to analyse the progress of the company and its businesses ahead of the monthly Board meeting, in accordance with the strategic policies established by the Board of Directors, reporting the content of its meetings to the plenary meeting, all in accordance with the rules of this Committee.

NAME	POST	TYPE
Jaime Real de Asúa Arteché	Chairman	Proprietary
Fernando Azaola Arteché	Board member	External
Fernando León Domecq	Board member	Proprietary
Rafael Martín de Bustamante Vega	Board member	Executive
Miguel Morenés Giles	Board member	Proprietary
Juan Prado Rey-Baltar	Secretary	Proprietary

EXECUTIVE COMMITTEE	NUMBER	% TOTAL
Executive Directors	1	16.67%
Proprietary Directors	4	66.66%
External Directors	1	16.67%
<b>Committee Meetings</b>	<b>22</b>	



Curitiba transmission line (Brazil)

### AUDIT COMMITTEE

The Audit Committee assists the Board with supervision of accounting, tax and financial information, internal and external audit services, internal control and risk management.

### ACTION IN 2017

Review of annual, six-monthly and quarterly economic information published on the markets and information on year-end targets and forecasts.

Monitoring of the main risks with a potential impact on the income statement and other relevant issues in connection with the financial statements, and Internal Audit activities.

Relations with the Group's external auditors, supervision of their independence and approval of fees.

Supervision of the Compliance System and the activities of the Compliance Committee.

Monitoring of the Group's Digital Transformation Project.

Information for the General Shareholders' Meeting.

NAME	POST	TYPE
Isabel Dutihl Carvajal	Chairman	Independent
Emilio Ybarra Aznar	Board member	Independent
Miguel Morenés Giles	Secretary	Proprietary

AUDIT COMMITTEE	NUMBER	% TOTAL
Independent Directors	2	66.67%
Proprietary Directors	1	33.33%
Female Directors	1	33.33%
<b>Committee Meetings</b>	<b>12</b>	

## APPOINTMENTS AND REMUNERATION COMMITTEE

The Appointments and Remuneration Committee assesses the skills, knowledge and experience required for directorships. It proposes and reviews the policy for remuneration of Directors and Management.

### ACTION IN 2017

Analysis of the composition of the Board with the assistance of Spencer Stuart as a world-renowned external consultant, in connection with the need to renew eight directorships in 2018 due to the imminent expiry of the terms for which the directors were appointed.

Examination of Directors' qualifications.

Review of the Directors' questionnaire concerning conflicts of interest.

Preliminary analysis of Board requirements for the appointment and re-election of Directors proposed to the Board.

Review of models for assessment of the Board, the Chairman and the Committees.

Formulation and implementation of the New Policy for Remuneration of Directors, which was approved by the General Shareholders' Meeting on 16 May 2017, applicable to the years 2017, 2018 and 2019. Proposal of annual fixed and variable remuneration for the Executive Director.

Proposal of the remuneration policy for Management and application of same, including a proposal of variable remuneration linked to the targets set.

Review of the succession plan for the Chairman, Chief Executive Officer and Management.

Work continued to adapt the Group's corporate structure.

Preparation of the new Policy for Selection of Directors, approved by the Board of Directors in November 2017.

Proposed amendment to Board Regulations to limit to three the number of Boards of listed companies on which Directors may sit in addition to the Elecnor, S.A. Board of Directors, in order to ensure they have sufficient time to carry out their functions.

Examination of the international mobility project concerning the situation of the Group's expatriate staff.

Information on all activities for the Board of Directors, providing all Directors with the minutes of their meetings.

Information for the General Shareholders' Meeting.

NAME	POST	TYPE
Emilio Ybarra Aznar	Chairman	Independent
Isabel Dutihl Carvajal	Board member	Independent
Jaime Real de Asúa Arteché	Board member	Proprietary
Fernando León Domecq	Secretary	Proprietary

APPOINTMENTS AND REMUNERATION COMMITTEE	NUMBER	% TOTAL
Proprietary Directors	2	50%
Independent Directors	2	50%
Female Directors	1	20%
<b>Committee Meetings</b>	<b>11</b>	



The Board's policy concerning the selection of Directors and diversity, approved by the Board on 22 November 2017, stipulates that the bodies responsible for processes to select members of the Board will be the Board of Directors and the Appointments and Remuneration Committee.

The procedures for selection will be formulated so as to foster diversity of experience, knowledge, skills and gender; and so that, in general, there will be no implicit biases that may entail any discrimination.

Particular attention will be paid to ensure that the selection procedures do not entail any form of discrimination for the selection of female Directors, in keeping with Corporate Governance goals.

When the Appointments and Remuneration Committee or the Board of Directors is seeking a professional profile, it will first take into consideration the company's interests. However, if there are two professional profiles which are similar, the profile of the gender with lesser representation will be selected.

A recommendation has been established for the number of female Directors to account for at least 30% of Board members by the year 2030.



Prevention conference (Cameroon)

Finally, in compliance with legal obligations, Elecnor S.A.'s Board of Directors drew up the Annual Corporate Governance Report for the year ended 31 December 2017. This document is available on the CNMV website and on Elecnor's website.

# Remuneration policy

On 15 March 2017, at the behest of the Appointments and Remuneration Committee, the Elecnor Board approved the Remuneration Policy for the years 2017, 2018 and 2019 and this is available for consultation on the Group's website.

By way of a primary measure for the new Remuneration Policy, following a market survey and due consultancy with Russell Reynolds, the Board agreed to reduce the remuneration of Directors in their capacity as such, accruing with respect to the following items of remuneration established in the Company Bylaws:

- A maximum sum of 10% of the net proceeds in the year.
- A fixed cash sum to be determined by the General Meeting.
- Attendance per diems.

By way of a major change, remuneration will cease to be necessarily the same for all Directors in their capacity as such, and distribution will be agreed by the Company's Board pursuant to Article 12 of Company Bylaws, in which regard the following will be taken into account:

- Membership of various Board Committees or exercise of functions in this regard.
- Membership of other Boards of companies forming part of the Elecnor Group.
- Attendance of Board meetings.
- The dedication of Directors to their functions and the responsibilities they undertake.
- Functions and trajectories on the Board of Directors.

For the remuneration received by Directors to reflect the dedication and responsibility undertaken by each, consideration must be given to membership of Committees of the Board of Directors or of other Boards of companies forming part of the Elecnor Group, and to protection of the short-term and long-term interests of shareholders.

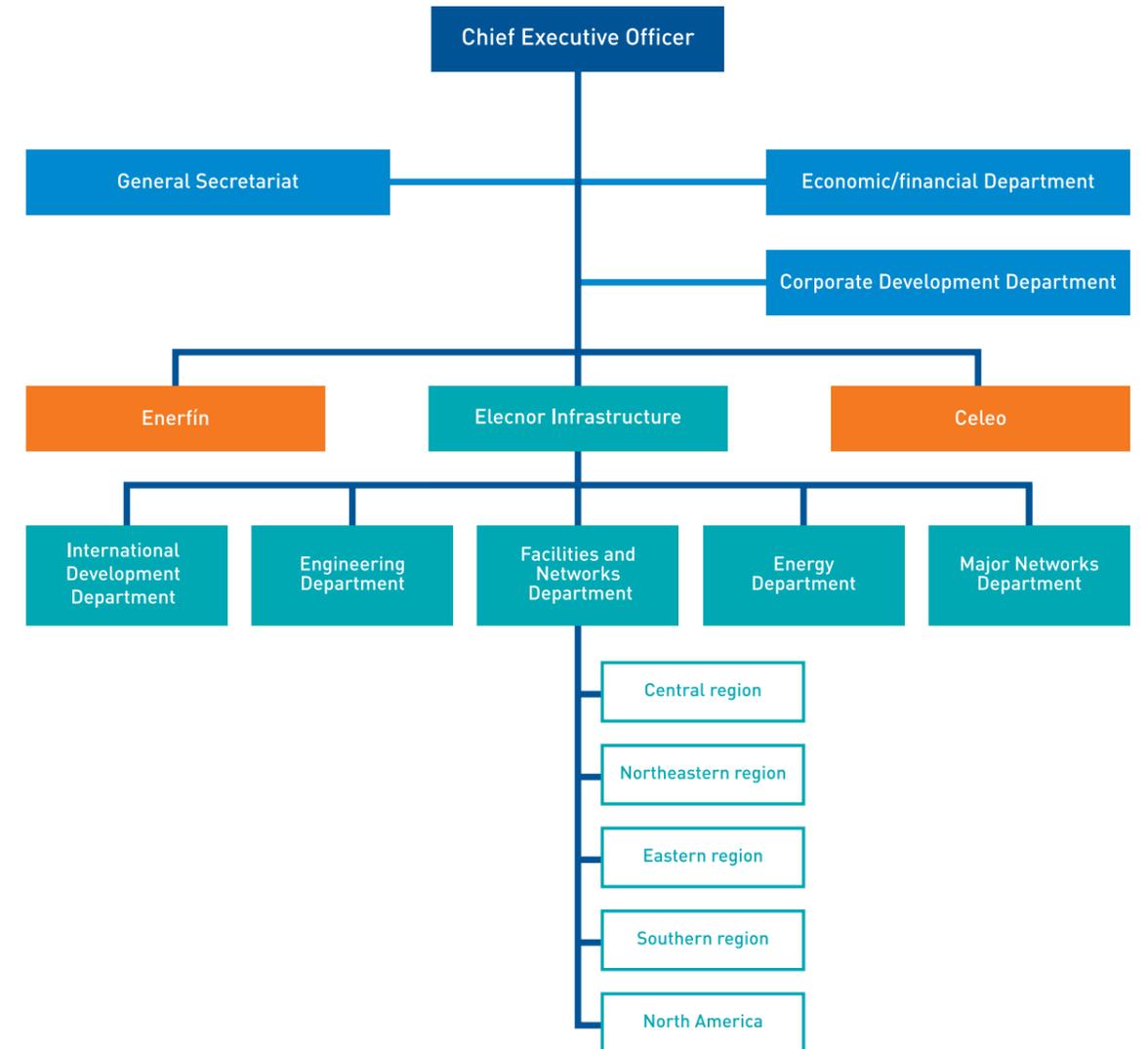
In this respect, the Policy is governed by the following essential principles:

- **Moderation:** remuneration must be reasonable and in line with the trends and benchmarks of similar companies, in proportion to the situation of the Company and the economic situation at any given time.
- **Suitability:** the Policy is geared towards attracting, motivating and retaining Directors. It rewards Directors' quality, dedication, responsibility and business knowledge, in addition to their professional trajectory and commitment to the Company.
- **Profitability and sustainability:** the remuneration of any Directors carrying out executive functions will incentivise their performance and reward the creation of value in the long run.
- **Transparency:** the Policy will be established, stipulated and applied in due compliance with transparency. Specifically, the Company will make this Policy and the Report available to shareholders at the General Meeting, and it will also be set out in the report on the financial statements and in the Company's Annual Corporate Governance Report.
- **Protection of the interests of shareholders:** this Policy seeks to protect the short-term and long-term interests of shareholders.

This Policy also determines the system of fixed and variable remuneration for any Directors carrying out executive functions, and the main terms and conditions of their contracts (term, severance pay, adherence to the Corporate Governance system, exclusivity or confidentiality).

# Organisational structure

At 31 December 2017



# Ethical management

(G4-DMA, G4-2, G4-S03, G4-S04, G4-S05)

The Elecnor Group permanently endeavours to ensure that all its actions meet the very highest ethical standards. The maximum exponent of this undertaking is the Group's Code of Ethics, which is published on the corporate website and Intranet.

Elecnor has a zero-tolerance attitude toward unethical conduct and poor integrity and expects its employees and related parties to behave in line with the principles of its Code of Ethics, the rules on which it is based, and implementing policies and procedures.

Through this Compliance System, the Group and each of its employees are committed to carrying out activities pursuant to prevailing legislation in the countries and regions where it operates, and to complying with and upholding human rights and employment rights, acting with diligence, professionalism, integrity, quality, respect for the environment and health and safety requirements and social responsibility. (G4-56)

The Elecnor Compliance System reflects the company's founding principles and values and its ongoing commitment to improving its management practices and procedures with the aim of strengthening its Corporate Governance.

The scope of this System extends to all countries in which the company and its subsidiary and investees operate, with proper adaptations according to the legislative or socio-economic singularities that exist in these other countries.

The main components of this Compliance System are as follows:

## CODE OF ETHICS

- The maximum exponent of the Group's commitment to the principles and values that must govern all its actions.
- The core mission of the Code is to communicate and encourage Elecnor's business philosophy for all employees and partners and to determine the behaviour expected of employees concerning ethical issues related to the organisation's commitments to the matter or the laws applicable.

## COMPLIANCE POLICY

- This is a partial implementation of the Code of Ethics and the main exponent of the Compliance System.
- It aims to establish the behaviour expected of Elecnor employees and of individuals or legal entities that regularly associate with the company, to ensure full compliance with the law.
- It was last updated in 2017.

## COMPLIANCE MANAGEMENT SYSTEM MANUAL

- An internal document regulating the functioning of the Compliance System, setting out its design and structure.
- It identifies and establishes responsibilities, goals and courses of action in relation to prevention, response, monitoring and reporting in connection with Compliance.

## COMPLIANCE COMMITTEE

- Collegiate body reporting organically and functionally to the Audit Committee.
- It is tasked with supervision, surveillance and control of the Compliance System and, in a word, with ensuring it functions properly.
- More specifically, among other functions, it regularly reviews the various aspects of the System, responds to reports of possible breaches, manages Compliance training for employees, reviews the Catalogue of Crimes, Risk Behaviour and Controls and responds to requests for information on the system from third parties.
- The Audit Committee supervises the effectiveness of the Compliance System through meetings with representatives of the Compliance Committee and approval of the Annual Compliance Report.

## CATALOGUE OF CRIMES, RISK BEHAVIOUR AND CONTROLS

- Structured list of risk behaviour patterns that may entail the perpetration of an offence and/or a breach of the procedures, protocols or controls established for proper prevention and management.
- It serves as a basis for a continuous review and update of the Compliance System.

## ANNUAL COMPLIANCE REPORT

- An annual report prepared by the Compliance Committee on the situation of the System, action taken etc.

Elecnor has set up a procedure for all employees to report, in good faith and without fear of reprisal, any irregular behaviour in relation to the matters envisaged in the Code of Ethics, the rules on which it is based, implementing policies and procedures, and the law. The employees of the organisation may also use the procedure to make queries or propose improvements to internal control systems in the organisation.

Group employees can send in their reports in connection with the Code of Ethics by e-mail or by post, and both these systems are fully operational:



[codigoetico@elecnor.com](mailto:codigoetico@elecnor.com)



PO box n° 26-48080



The Compliance Management System Manual, published on the corporate Intranet, sets out in comprehensive detail all the phases of the process for responding to each report received.

Four reports were received in 2017, and these had been addressed and resolved by year-end. **[G4-LA16]**

Elecnor's Compliance System is based on identification and prioritisation of the compliance risks applicable to it. Elecnor intends its System to be perfectly adapted at all times to the company and the specific risks to which it is exposed, to ensure that it acts as an effective risk management tool. With this in mind, both the risks identified and their importance are constantly monitored and updated, where required, by the

Compliance Committee. In the event of significant legal changes that may affect key aspects of the Compliance System, Elecnor employs the services of external specialists to provide advice on this update process.

The Compliance System is also supported by the various procedures, protocols and controls established in the different areas of business which have been operated by the Group since it was incorporated.



## 2017 MILESTONES

Work continued in 2017 to bring the Compliance System into line with the requirements of ISO 37001 Anti-bribery Management Systems, the international standard established as the most modern and stringent expression of worldwide management systems to prevent bribery and for general compliance purposes, and Elecnor, S.A. secured official AENOR certification for its Anti-bribery/Corruption Management System in January 2018 (operating as part of the Compliance System).

Elecnor signed the United Nations Global Compact in early 2017, undertaking its 10 Principles in the areas of Human Rights, Employment, the Environment and Anti-Corruption.

The capacity of the Compliance Committee was boosted by the addition of a new member.

With regard to training, members of the Compliance Committee, assisted by external advisors, gave specific compliance training to Group management (approximately 200 people). A start was also made on drawing up the Compliance Training Plan for 2018, in which training is expected to be extended to an even larger group. **[G4-HR2]**

During the informative talks for new arrivals at the Group, members of the Compliance Committee shared the main aspects of the Compliance System with them, in addition to the organisation's main messages, principles and values.

Update and posting on the corporate Intranet of internal regulations concerning procedures for joint venture applications to improve the process and its management pursuant to the current situation in terms of Anti-corruption Measures and Compliance.

Creation of the Global Compliance Coordination Committee to capillarise the Compliance System throughout the Group.

Work continued on the process to implement the Compliance System at the Group's foreign subsidiaries. This process has been completed at Elecnor do Brasil, and is at an extremely advanced stage in Elecnor Chile and Enerfin do Brasil.

Celeo Chile secured Prevention Model certification as per the standard established in Law 20.393, thus boosting the commitment to a system of compliance and corporate governance in accordance with the industry's best standards.

# Risk management (G4-2, G4-14)

Elecnor is exposed to a number of risk factors in connection with the sectors in which it works and also with the large number of countries in which it operates, either regularly or on one-off projects.

The Group permanently identifies all risks and updates the best prevention and management measures, in such a way as to minimise the possibility of their emergence and their potential impact in terms of business, economic and financial balance, and its reputation.

## REGULATORY RISKS

Elecnor pays close attention to regulatory risks, particularly with regard to renewable energies, so as to monitor potential impacts on its consolidated income statement.

In a more general sense, the Group gives priority to action in countries with substantial legal certainty. In all these countries close attention is paid to any developments in regulatory and legislative processes that may affect activities.

## FINANCIAL RISKS

### MARKET RISK

#### EXCHANGE RATE RISKS

These arise from operations carried out by the Group on world markets in the course of its business.

Elecnor manages and minimises this risk through hedging strategies, with the objective of earning revenue only through its ordinary activities, and not on exchange rate speculation.

The hedging instruments used are mainly debt referenced against the currency in which the contract is paid, exchange rate insurance and financial swaps.

#### INTEREST RATE RISK

Elecnor has access to external funding for its operations, especially in relation to the development, construction and operation of wind farms, solar thermal projects and electricity infrastructure tenders, carried out through project financing. This type of financing requires interest rate risk to be hedged contractually through interest-rate hedges.

In both project financing and corporate financing, most debt is arranged at variable rates and the Group uses hedging instruments to minimise the interest-rate risk on the borrowings.

## BUSINESS-RELATED RISKS

These arise from tender processes and execution of projects, the quality of the services and products supplied, environmental impacts, supply chains and subcontracting, among others.

## OTHER CORPORATE RISKS

Risks in relation to reputation, strategy, personnel management, prevention of occupational hazards etc.

### OTHER PRICE RISKS

The Group is exposed to the risk that cash flows and results may be affected, among other issues, by changes in energy prices. To manage and minimise this risk, the Group occasionally resorts to hedging strategies.

### LIQUIDITY RISK

This risk is mitigated by a policy of maintaining a highly liquid cash position, holding non-speculative short-term instruments, such as treasury bills in non-optional reverse repurchase agreements and very short-term US dollar deposits, and credit facilities in sufficient amounts to meet projected needs.

### CREDIT RISK

The main risk is commercial receivables, if counterparties or customers fail to meet their contractual obligations with regard to accounts receivable for commercial transactions. To mitigate this risk, Elecnor operates with customers with a solid credit history. Also, mechanisms such as advances, irrevocable letters of credit and credit insurance policies are used for international sales to non-recurring customers. Elecnor also analyses the financial solvency of the customer, stipulating specific contract conditions to guarantee collection.

# APPENDICES



Elecnor Deimos' space surveillance telescopes were featured in National Geographic in February 2018.  
Photograph by Luca Locatelli

# Stakeholders and communications channels

[G4-24, G4-25, G4-26, G4-27]

The company has identified its principal stakeholders, with whom it maintains an open ongoing dialogue via various communication channels, in a bid to identify them and respond to their needs and expectations.

The main communication channels are as follows:

Stakeholder	Communication channels
<b>Shareholders and investors</b>	<ul style="list-style-type: none"> <li>General Shareholders' Meetings</li> <li>Consolidated financial statements</li> <li>Integrated Report</li> <li>Elecnor Foundation Report</li> <li>Group website</li> <li>Shareholder service</li> <li>Shareholder forum</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>Regular visits</li> <li>Regular communications</li> <li>Consolidated financial statements</li> <li>Conventions, fairs and congresses</li> <li>Corporate website</li> <li>Satisfaction surveys</li> <li>Integrated Report</li> <li>Elecnor Foundation Report</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Regular meetings</li> <li>Working groups</li> <li>Integrated Report</li> <li>Communication campaigns</li> <li>Training courses and events</li> <li>Group website</li> <li>Intranet</li> <li>Newsletter</li> <li>Ethics channel</li> </ul>
<b>Public authorities and regulators</b>	<ul style="list-style-type: none"> <li>Group website</li> <li>Official communications</li> <li>Consolidated financial statements</li> <li>Integrated Report</li> <li>Elecnor Foundation Report</li> </ul>



Stakeholder	Communication channels
<b>Suppliers and associates</b>	<ul style="list-style-type: none"> <li>Meetings and working groups</li> <li>Conventions, fairs and congresses</li> <li>Audits</li> <li>Integrated Report</li> <li>Group website</li> </ul>
<b>Local community</b>	<ul style="list-style-type: none"> <li>Group website</li> <li>Local websites</li> <li>Elecnor Foundation Report</li> <li>Sponsorship</li> <li>Social projects</li> <li>Integrated Report</li> <li>Social networks</li> </ul>
<b>Communication media</b>	<ul style="list-style-type: none"> <li>Press releases</li> <li>Informative events</li> <li>Group website</li> <li>Consolidated financial statements</li> <li>Integrated Report</li> <li>Elecnor Foundation Report</li> <li>Social networks</li> </ul>
<b>Technology centres and universities</b>	<ul style="list-style-type: none"> <li>Cooperation agreements</li> <li>Forums</li> <li>Integrated Report</li> <li>Elecnor Foundation Report</li> </ul>

# Relevant issues

[G4-18, G4-19, G4-20, G4-21, G4-26]

Elecnor avails itself of this Integrated Report to provide its stakeholders with relevant information on the company's economic, social and environmental performance.

The material issues determined by the analysis run in 2016 continued in 2017 and were added to by two significant factors for Group business: cybersecurity and digital transformation. [G4-27]

Dimension	Sustainability aspects	Priority	Impact	
			Internal	External
Ethics	Good governance	Medium-high priority	X	X
	Ethics and compliance	High priority	X	X
People management	Health and safety of employees/contractors	Very high priority	X	X
	Attraction and retention of talent and development of human capital	Very high priority	X	
	Management of equality and diversity	Medium-high priority	X	
Environment	Environmental management	Medium-high priority	X	X
	Development of renewable energy	Very high priority		X
	Strategy for and impacts of climate change	Very high priority	X	X
	Biodiversity	Medium-high priority		X
Business	Customers. Service quality	Very high priority	X	X
	Business opportunities in emerging countries	Medium-high priority	X	
	Risk management	Very high priority	X	X
	Technology and innovation	Very high priority	X	X
	Stable regulatory framework	Very high priority	X	
	Relationships with public authorities in developing/emerging nations	Medium-high priority	X	
	Supply chain management	Very high priority	X	X
	Cybersecurity	Very high priority	X	X
	Digital transformation	Very high priority	X	X
Society	Management of impact and dialogue with local communities	Very high priority		X
	Sustainable Development Goals	Medium-high priority	X	X



# About this Report

[G4-17, G4-28, G4-29, G4-30]

This is Elecnor's first Integrated Report, and it strives to provide a global interconnected view of the Group's economic, social, environmental and governance information for the year 2017.

Information on sustainability in this Integrated Report was compiled in accordance with the requirements of the international Global Reporting Initiative standard [G4 Guidelines], for the purposes of defining the contents and also guaranteeing its quality.

The information refers to the Elecnor Group's main activities and social, economic and environmental impacts in 2017, together with other aspects considered to be of interest to its stakeholders. Some sections of the report also include information from previous years for comparative purposes.

With regard to information on sustainability, the economic information provided refers to all the companies in the Elecnor Group (Elecnor, S.A. and its subsidiaries). This information was taken from the consolidated audited annual financial statements of the Elecnor Group for the year ended 31 December 2017. The social information provided refers to the Elecnor Group and the Elecnor Foundation.

Any differences in the scope and boundaries of certain items are specified in the appropriate section.

# GRI content index



## GENERAL BASIC CONTENT

General Basic Content	Page, link or direct response	Description
<b>Strategy and analysis</b>		
G4-1	4	Statement from the most senior decision-maker in the organisation about the importance of sustainability to the organisation and its strategy.
G4-2	28, 156, 160	Description of the key impacts, risks and opportunities.
<b>Organisation's profile</b>		
G4-3	10	Name of the organisation.
G4-4	26	Primary brands, products and/or services of the organisation.
G4-5	175	Location of the organisation's headquarters.
G4-6	24	Number of countries where the organisation operates. Name those where either the organisation has significant operations or they are specifically relevant to sustainability.
G4-7	148	Report the nature of ownership and legal form.
G4-8	33	Report the markets served (including geographic breakdown, sectors served and type of customers and beneficiaries).
G4-9	20	Report the scale of the organisation.
G4-10	91	a) Total number of employees by employment contract and gender. b) Total number of permanent employees by employment type and gender. c) Total workforce by employees and supervised workers and by gender. d) Total workforce by region and gender; seasonal contracts. e) State whether a substantial part of the organisation's work is carried out by workers who are legally recognised as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f) Report any significant variations in employment numbers.
G4-11	Note 1, page 174	Percentage of employees covered by collective bargaining agreements.
G4-12	123	Description of the supply chain.
G4-13	No significant changes	Significant changes during the reporting period regarding size, structure, ownership and supply chain.
G4-14	160	Report whether and how the precautionary principle is addressed by the organisation.
G4-15	140	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses.
G4-16	143	List memberships of associations (such as industry associations) and national or international advocacy bodies to which the organisation belongs.



## Material aspects and boundaries

G4-17	167	a) List the companies included in the consolidated financial statements of the organisation and other equivalent documents. b) State whether any of the companies included in the consolidated financial statements of the organisation and other equivalent documents are not listed in the report.
G4-18	166	a) Explain the process for defining the report content and the boundaries of each aspect. b) Explain how the organisation has applied the principles for drawing up reports to determine the contents of the report.
G4-19	166	Draw up a list of the material aspects identified during the process for defining report content.
G4-20	166	For each material aspect, report the Aspect Boundary within the organisation.
G4-21	166	For each material aspect, report the Aspect Boundary outside the organisation.
G4-22	There were no restatements of information in previous reports	Describe the effect of any restatements of information provided in previous reports and the causes.
G4-23	No significant changes	Report significant changes from previous reporting periods in relation to previous reports.
G4-24	164	Provide a list of stakeholder groups engaged by the organisation.
G4-25	164	Report the basis for identification and selection of stakeholders with whom to engage.
G4-26	164, 166	Describe the organisation's approach to engagement of stakeholders - for example, the frequency of cooperation with the various types and groups of interested parties, or state whether engagement of a group was carried out specifically in the process to draw up the report.
G4-27	164, 166	State which key issues and problems have arisen from the engagement of stakeholders and describe the assessment conducted by the organisation, among other aspects, in its report. Specify which stakeholders raised each of the key topics and concerns.

## Report profile

G4-28	167	Reporting period (such as fiscal or calendar year) for information provided.
G4-29	167	Date of most recent previous report (if any).
G4-30	167	Report submission cycle.
G4-31	175	Provide the contact point for questions regarding the report or its contents.
G4-32	Option of Essential Conformity	a) Report the 'in accordance' option the organization has chosen. b) Report the GRI Content Index for the chosen option. c) Report the reference to the External Assurance Report, if any.
G4-33	Information concerning sustainability has not been verified externally	External assurance of the report



### Governance

G4-34	149	Report the governance structure of the organisation, including committees of the highest governance body. State which committees are responsible for decision-making on economic, environmental and social issues.
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### Ethics and integrity

G4-56	27, 156	Describe the organisation's values, principles, standards and norms of behaviour, such as codes of conduct and codes of ethics.
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## SPECIFIC BASIC CONTENTS

Disclosure on the management approach and indicators	Page, link or direct response	Omissions	Description
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### CATEGORY: ECONOMICS

#### Material aspect: economic performance

G4-DMA	16	Economic performance.
G4-EC1	104	Generation and distribution of direct economic value.
G4-EC2	26, 33, 130	Financial consequences and other risks and opportunities for the organisation's activities due to climate change.

#### Material aspect: indirect economic consequences

G4-DMA	134	Indirect economic consequences.
G4-EC7	134	Development and impact of infrastructure investments and services supported.
G4-EC8	134	Significant indirect economic impacts, including the extent of impacts.

#### Material aspect: procurement practices

G4-DMA	123	Procurement practices.
G4-EC9	105	Proportion of spending on local suppliers at significant locations of operation.

### CATEGORY: ENVIRONMENT

#### Material aspect: energy

G4-DMA	120, 124	Energy.
G4-EN3	129	Internal energy consumption.
G4-EN6	131	Reduction of energy consumption.
G4-EN7	125, 130	Reductions in energy requirements of products and services.

#### Material aspect: biodiversity

G4-DMA	120, 124, 132	Biodiversity.
G4-EN11	132	Own operating facilities, leased facilities or managed facilities that are adjacent, contain or are located in protected areas and unprotected areas of great value in terms of biodiversity.
G4-EN12	132	Description of the most significant impacts on the biodiversity of protected areas or unprotected areas of great value in terms of biodiversity arising from activities, products and services.
G4-EN13	132	Habitats protected or restored.

#### Material aspect: emissions

G4-DMA	120, 124	Emissions.
G4-EN15	127	Direct greenhouse gas emissions (Scope 1).
G4-EN16	127	Indirect greenhouse gas emissions through generation of energy (Scope 2).
G4-EN19	128	Reduction of greenhouse gas emissions.

#### Material aspect: products and services

G4-DMA	120, 124	Products and services.
G4-EN27	130	Mitigation of the environmental impact of products and services.

#### Material aspect: regulatory compliance

G4-DMA	156	Regulatory compliance.
G4-EN29	Note 2, page 174	Monetary value of significant fines and number of non-monetary penalties through failure to comply with legislation and environmental regulations.



CATEGORY: SOCIAL PERFORMANCE		
EMPLOYMENT PRACTICES AND DIGNIFIED WORK		
Material aspect: employment		
G4-DMA	86	Employment.
G4-LA1	91	Total number and rate of new employee hires and average employee turnover, by age group, gender and region.
G4-LA2	99	Social benefits for full-time employees that are not offered to temporary or part-time staff, by significant work locations.
G4-LA3	96	Return to work and retention rates after maternity or paternity leave, by gender.
Material aspect: occupational health and safety		
G4-DMA	100	Occupational health and safety.
G4-LA6	100	Type and rate of injuries, professional illnesses, days lost, absenteeism and number of employment-related fatalities, by region and gender.
Material aspect: training and education		
G4-DMA	86	Training and education.
G4-LA9	89	Average hours of capacitation per year per employee, by gender and by employee category.
G4-LA10	89	Skills and continuous training programmes to encourage employability and help staff to manage the end of their professional careers.
G4-LA11	87	Percentage of employees receiving regular performance and career development reviews, by gender and professional category.
Material aspect: diversity and equal opportunities		
G4-DMA	96	Diversity and equal opportunities.
G4-LA12	96, 149	Composition of governance bodies and breakdown of workforce by professional category and gender, age, membership of minority groups and other diversity indicators.
Material aspect: employment practices grievance mechanism		
G4-DMA	156	Employment practices grievance mechanisms.
G4-LA16	158	Number of claims concerning employment practices submitted, addressed and resolved through official grievance mechanisms.

HUMAN RIGHTS		
Material aspect: investment		
G4-DMA	156	Investment.
G4-HR2	159	Total hours of employee training on policies and procedures in relation to aspects of human rights that are relevant to their activities, including the percentage of employees trained.
Material aspect: non-discrimination		
G4-DMA	156	Non-discrimination.
G4-HR3	Note 2, page 174	Total number of incidents of discrimination and corrective action taken.
Material aspect: indigenous rights		
G4-DMA	156	Indigenous rights.
G4-HR8	Note 2, page 174	Total number of incidents of violations involving rights of indigenous people and action taken.
Human rights grievance mechanism		
G4-DMA	156	Human rights grievance mechanisms.
G4-HR12	Note 2, page 174	Number of complaints in relation to human rights submitted, processed and resolved through official conciliatory mechanisms.
SOCIETY		
Material aspect: local communities		
G4-DMA	134, 142	Local communities.
G4-S01	142	Percentage of operations with implementation of development programmes, impact assessments and involvement of the local community.
G4-S02	142	Operations with significant actual or potential negative impacts on local communities.
Material aspect: anti-corruption		
G4-DMA	156	Anti-corruption.
G4-S03	156	Number and percentage of centres with assessment of risks relating to corruption and significant risks detected.
G4-S04	156	Communication and training on anti-corruption policies and procedures.
G4-S05	156	Confirmed incidents of corruption and action taken.



#### Material aspect: regulatory compliance

G4-DMA	156	Regulatory compliance.
G4-S08	Note 2, page 174	Monetary value of significant fines and penalties and total number of non-monetary penalties arising from failure to comply with laws and regulations.

#### Material aspect: grievance mechanisms for impacts on society

G4-DMA	156	Grievance mechanisms for impacts on society.
G4-S011	142 Note 2, page 174	Number of claims concerning impacts on society submitted, addressed and resolved through official grievance mechanisms.

#### PRODUCT RESPONSIBILITY

##### Material aspect: labelling of products and services

G4-DMA	120	Labelling of products and services.
G4-PR5	121	Results of surveys measuring customer satisfaction.

##### Customer privacy

G4-DMA	156	Customer privacy.
G4-PR8	Note 2, page 174	Total number of substantiated complaints regarding breaches of customer privacy and leakages of customer data.

#### Notes

**Note 1:** In Spain, 100% of employees are covered by collective bargaining agreements. In other countries where the Group operates, comparable legislation (applied strictly by Elecnor) exists only in Argentina, Brazil, the United States, Uruguay, Jordan and Italy. [\[G4-11\]](#)

**Note 2:** There are no noteworthy incidents or aspects.  
[\[G4-EN29, G4-HR3, G4-HR8, G4-HR12, G4-S08, G4-S011, G4-PR8\]](#)

For any further information or queries [\[G4-5, G4-31\]](#)

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