

Sustainability Report 2015-2016

2016 Update



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FCC Construcción Sustainability Report is published on a biennial basis. This document summarises the most relevant information contained of the 2015-2016 Sustainability Report and contains the update of the main indicators from the past financial year.

FCC Construcción, at a glance

Key indicators trends



Business

	2015	2016	Evolution
Turnover	€1,993 million	€1,653 million	▽
Portfolio	€6,230 million	€4,482 million	▽
% of turnover from abroad	55%	65%	△



People

	2015	2016	Evolution
Employees	6,851	5,671	▽
Women (as % of the total staff)	13.2%	12.6%	▽
Training hours	95,382	83,593	▽
Expenses in training	€1,619 k	€1,591 k	▽
Environment, quality and OHS training hours	23,049	22,476	▽
Incidence index (accident rate)	4,004	2,032	▽
Frequency index (accident rate)	16.23	9.26	▽
Seriousness index (accident rate)	0.39	0.30	▽



Innovation

	2015	2016	Evolution
Investment in R&D&i	€7.3 million	€4.2 million	▽



Environment

	2015	2016	Evolution
Certified activity according to UNE-EN ISO 14001	97% (100% in Spain)	96% (100% in Spain)	▽
% of sites meeting the environmental objective requested by the company	90.3%	92.2%	△
Use of resources sourced coming from waste ¹ (earth and rubble reused on site)	8,111,475 m ³	5,746,732 m ³	▽
Energy consumption	1,276,687 GJ	1,375,833 GJ	△
Water consumption	2,100,743 m ³	1,665,749 m ³	▽
GHG emissions	345,158 t CO ₂ eq	296,784 t CO ₂ eq	▽
Avoided GHG emissions, thanks to the implementation of best practices on site	22,349 t CO ₂ eq	17,338 t CO ₂ eq	▽



Community

	2015	2016	Evolution
Website visits	154,850	115,867	▽
Number of suppliers	10,409	10,004	▽
Percentage of local suppliers	98.4	99.6	△
Certified activity according to UNE-EN ISO 9001	97% (100% in Spain)	97% (100% in Spain)	●
Customer satisfaction ²	3.76	3.70	▽
Number of external communications ¹	378	152	▽

⁽¹⁾ FCC Industrial data are not included.

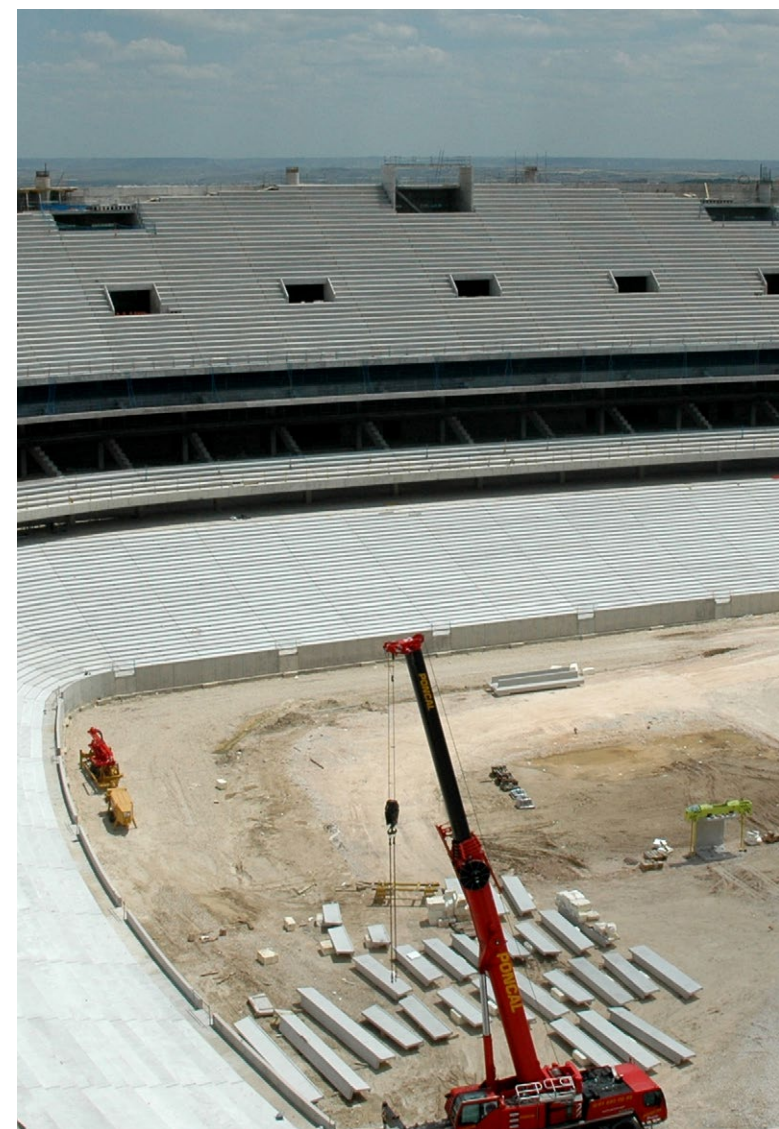
⁽²⁾ It is the weighted score of the company performance at FCC Construcción and FCC Industrial sites. It is scored from 1 to 4, being 4 the greatest satisfaction.

Certified activity




		2015		2016			
Management area	Standard	Total Construction	Construction in Spain	Total FCC Co	Total FCC Ind	Total Construction	Construction in Spain
Quality	ISO 9001	97.3%	100%	99.9%	82.9%	97.1%	100%
Environment	ISO 14001	96.9%	100%	99.9%	75.2%	95.9%	100%
Occupational Health and Safety	OHSAS 18001	87.4%	99.5%	88.0%	99.5%	93.5%	99.5%
GHG emissions	ISO 14064	33.7%	74.6%	26.4%	0.0%	22.1%	62.4%
Information security	ISO 27001	39.2%	86.8%	26.4%	39.7%	28.5%	80.3%
RDI	UNE 166002	NA	74.6%	NA	NA	NA	62.4%

The data corresponds to the percentage of certified turnover, except in the case of Occupational Health and Safety, where the percentage of employees coverage is considered.

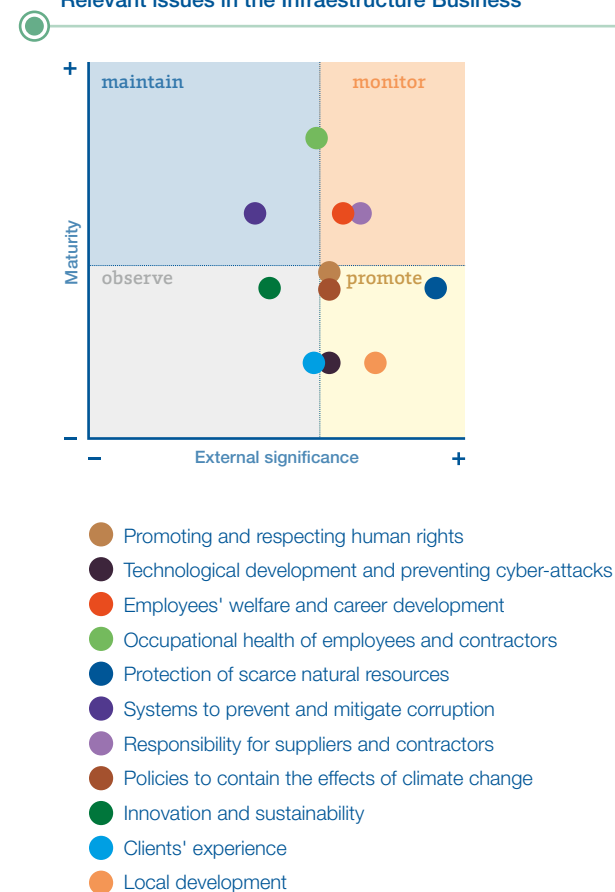


New football stadium of Atlético Madrid (Spain).

Key issues at FCC Construcción

Materials aspects in 2016	Relevance	Relation with SDGs
<ul style="list-style-type: none"> Occupation health of employees and contractors. Responsibility for suppliers and contractors. Employees' welfare and career development. Protection of scarce natural resources. 	Very high relevance	     
<ul style="list-style-type: none"> Promoting and respecting human rights. Systems to prevent and mitigate corruption. Policies to contain the effects of climate change. Innovation and sustainability. 	High relevance	     
<ul style="list-style-type: none"> Local development. Technological development and preventing cyberattacks Clients' experience. 	Medium relevance	     

Relevant issues in the Infrastructure Business



01

FCC Construcción,
at a glance

02

Our organisation

03

Responsible
management and
business ethics

04

Sustainable
construction and
innovation

05

Engaging with
our stakeholders

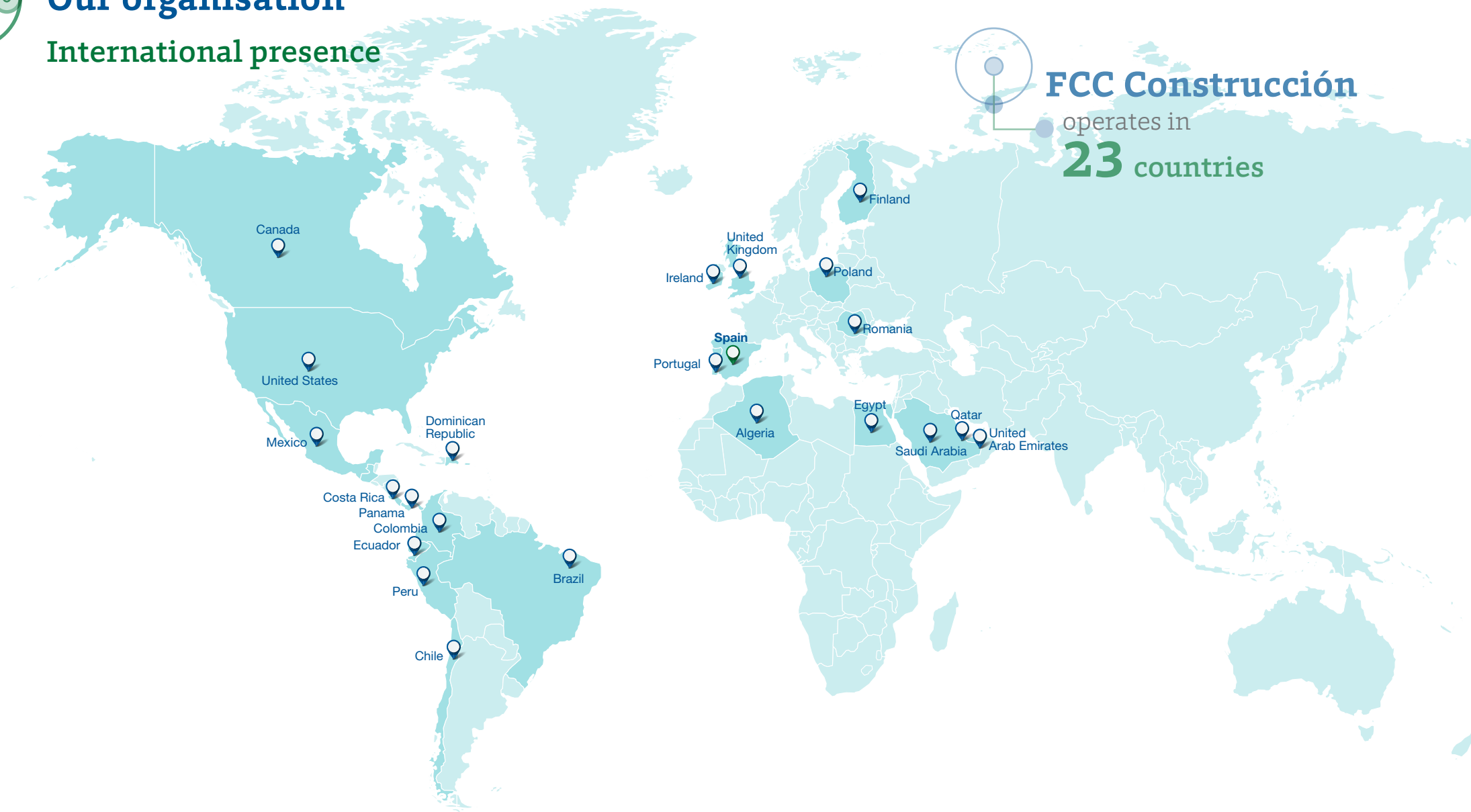
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Environmental
management

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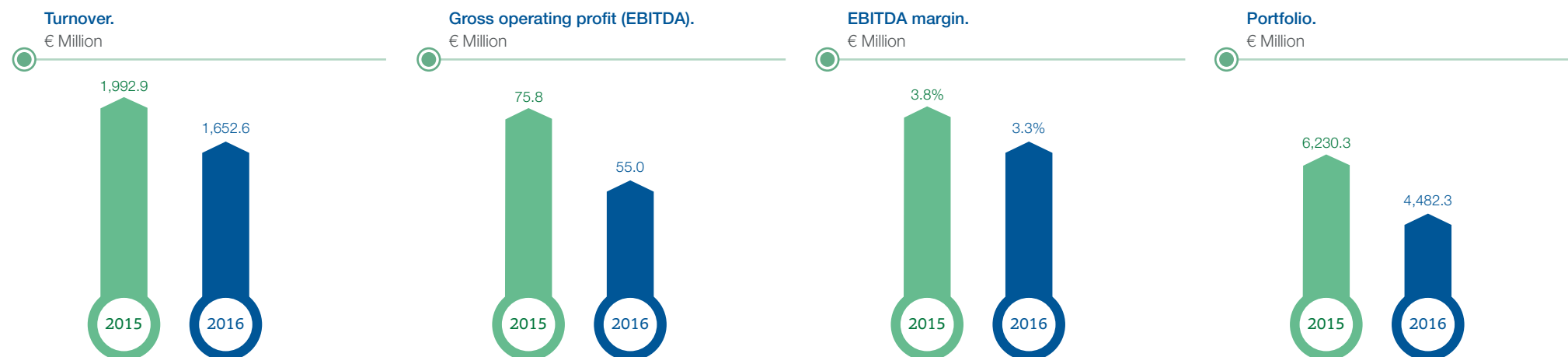
Our organisation

International presence

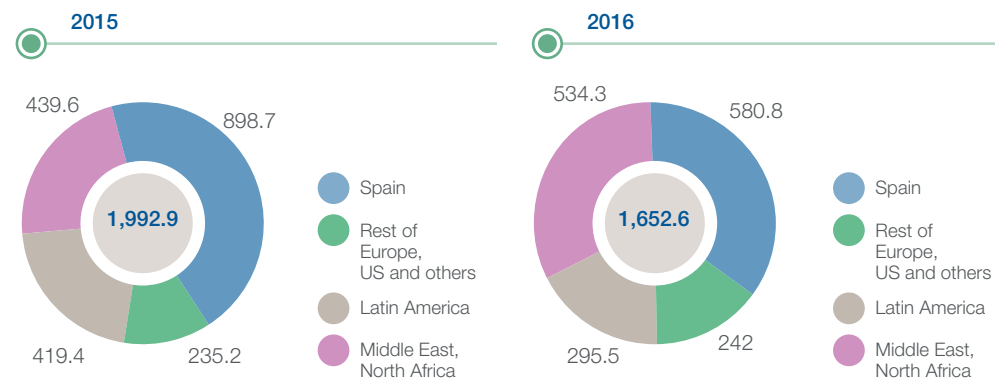


Economic performance

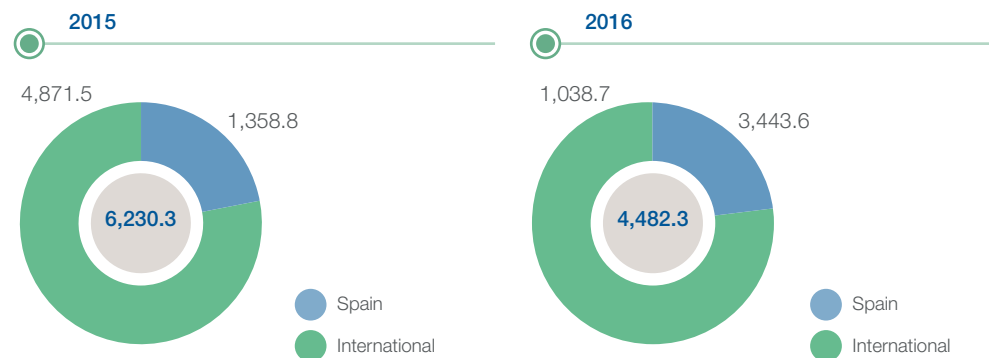
Key financial figures



Turnover broken down by geographical region



Portfolio broken down by geographical region



2016 Milestones

Our organisation

- Setting-up of a new subsidiary company, FCC Américas, owned by Carso Infraestructura y Construcción and FCC Construcción (50% each).
- Award of contract for the Samalayuca–Sasabe gas pipeline (Mexico): the first contract to be won by the partnership between Carso and FCC Industrial.
- Contracts for Salitre wastewater-treatment plant (Colombia), Bucharest metro line 5 (Romania) and Playa Blanca port extension (Spain) awarded to FCC Construcción.
- Completion of works at Açú port (Brazil), Callao port (Peru) and Línea de la Concepción hospital (Spain).
- Completion of deck for Almonte viaduct (Spain), with one of the largest spans for HST bridges in the world.
- Opening of the Cañas–Liberia road (Costa Rica) and the Panama Channel extension.
- A world benchmark in selective building of major civil engineering works (railways, metro systems, etc.).
- International business accounts for 65% of earnings.
- Megaplas sales doubled, with the same team of professionals.
- Stability of the portfolio of orders, 77% of which come from the international market.

Future challenges

- Strengthen synergies between different business divisions to act as a single enterprise, be more efficient, rationalise structures and cut costs.
- Focus the business on known markets, stable regions and profitable activities.
- Continue with the international expansion of FCC Industrial.
- Select iconic, unique projects where FCC can offer differential value.
- Bid for contracts on markets where our historical experience and technical capacity can increase our profitability.
- Reduce the FCC Group's debt in order to leverage new growth opportunities.



Virgen de la Arrixaca hospital
(Spain).

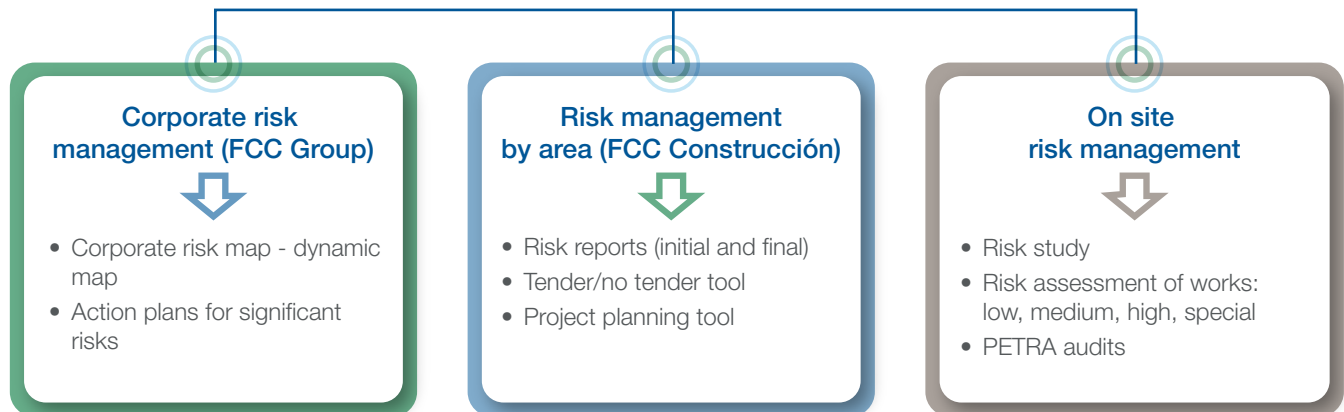
Responsible management and business ethics

Ethics and integrity framework Risk management and mitigation

Complaints received via the ethics channel

Code of Ethics area	2016
Respect among people	2
Corruption and bribery	0
Career development, equal opportunities and non-discrimination	0
Integrity principle	0

Risk Management Framework of FCC Construcción



Castrovido Dam (Spain).



Pajares Tunnels (Spain).

Balanced relations with our suppliers

Number and cost of suppliers by geographical location

	2015				2016			
	Total number of suppliers	Number of local suppliers	Total cost of suppliers (€M)	Cost of local suppliers (€M)	Total number of suppliers	Number of local suppliers	Total cost of suppliers (€M)	Cost of local suppliers (€M)
Spain	7,629	7,540	1,233	1,197	8,062	8,048	494	475
European Union (rest)	1,031	1,006	90	76	929	920	76	65
US and Canada	176	169	21	21	131	131	28	28
Latin America	1,133	1,122	197	187	501	500	535	535
Rest of the World*	440	403	145	135	381	365	61	59
Total	10,409	10,240	1,686	1,616	10,004	9,964	1,194	1,162

* Rest of the World: Asia, North Africa and Middle East.

Assessment of suppliers

	2015	2016
Suppliers in the database	111,525	118,262
Suppliers with poor assessments	4,853 (4.4%)	4,619 (3.9%)
Anomalous	4,102	3,877
Conflictive	672	663
Vetoed	79	79



Riyadh Metro Project (Saudi Arabia).



Accesses to La Sagrera station (Spain).

2016 Milestones

Responsible management

- Considerable diversity in terms of gender and nationalities on FCC's Board of Directors.
- FCC's capital increased by €709 M.
- Renewal of FCC Construcción management team.
- Approval of FCC Group's CSR policy, in line with the Sustainable Development Goals.
- FCC Construcción's Sustainability Report 2015-2016 published, explaining how the company is working to integrate the UN Sustainable Development Goals into its strategy.
- For the fifth year running, awarded the highest possible score ('Advanced Level') in the United Nations Communication on Progress.
- Responsibility and Sustainability Award of the Madrid Professional Association of Civil Engineers won by FCC Construcción, for its SAMCEW© methodology.
- Definition of risks and opportunities associated with the organisation context and its interested parties.
- Centralised management of procurement, dependent on the Administration and Finance Division.
- Launch of the implementation of an electronic tool for managing the company's procurement, in partnership with a specialist supplier.

Future challenges

- Continue to progress by adopting best practices with regard to the Board of Directors.
- Integrate the Sustainable Development Goals (SDGs) into FCC Construcción CSR policy and strategies.
- Analyse all realisable risks with a view to increasing economic margins and reducing losses, and update the risks map.
- Update the FCC Group's Code of Ethics, adapting it effectively to the 2015 amendment of the Spanish Penal Code.
- Encourage the contracting of local suppliers.
- Prepare a responsible-procurement policy.



Connection N-344 to Jumilla
(Spain).

Sustainable construction and innovation

Investment in RDI (€)

	2015	2016
Total investment during the financial year	7,286,703	4,200,888
Percentage of investment allocated to sustainability -and environment- related projects	12.1%	30.6%
Subsidies received	460,350	279,602
Loans obtained on advantageous terms	1,052,865	678,873

Dredging activities in the Bogotá river (Colombia).

Outstanding innovative projects



CALA

Enhanced water security and higher capacity of the reservoir capacity of masonry dams

The basic objective of this project is to devise a tool that integrates an optimal design code for protecting masonry dams against overspill by implementing spill-collection side channels. This tool will numerically model the water flow over the dam in overspill situations and its interaction with the protection planned, based on the built-in design criteria.



ZERO IMPACT

Development of an anti-bird-collision screen, based on halogen-free tubes

Interaction between high-speed transport infrastructure and wildlife on the land crossed is a growing concern both for infrastructure managers and for biodiversity managers. In the case of birds, further specific, complex measures are necessary, depending on the land crossed and the species to be protected, and diverse measures that can be adapted to the circumstances must often be applied. This project develops one of these measures to avoid bird collisions.



ROBIM

Research into self-contained robotics for inspecting and assessing existing buildings, using BIM technology

The objective of this project is to develop an automated, active, multidisciplinary technology for the inspection, evaluation and diagnosis of the composition, condition and energy efficiency of the walls of buildings. The technology is based on a mobile, light, self-contained robot to facilitate the collection of reliable, sufficiently detailed data on existing building systems and pathologies, to obtain a comprehensive analysis of the building. The information will be implemented using BIM technology to facilitate decision-making and global data management.



IN2RAIL

Computer systems associated with railway-network maintenance

The purpose of this project is to establish the basis for setting up a flexible, homogeneous, profitable, high-capacity, digitised European rail network. Innovative technologies will be studied to all information to be integrated, optimised and disseminated in such fields as engineering, infrastructure management, maintenance, and energy consumption. Compatible and interconnected automatic traffic-management systems, energy-management procedures and new power sources for railways will be explored.

Priority RDI areas at FCC Construcción



Energy efficiency
in building



Railway
infrastructure



BIM-Building
Information Modelling



Maritime works

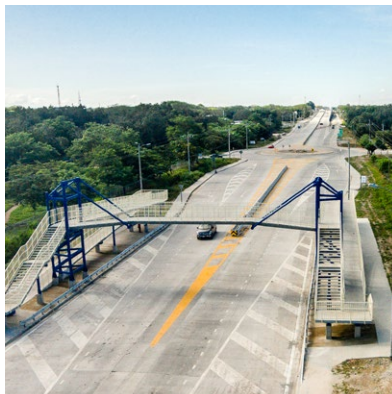


Sustainable
construction

2016 Milestones

Sustainable construction and innovation

- Analysis of the framework of grants and tax benefits in countries where FCC Construcción operates.
- Focusing RDI activity on undertaking large-scale projects.
- Participating in more than 45 working groups related to sustainability, innovation and the environment in construction.
- Participating in various working groups organised by the Building Information Modelling (BIM) Commission (National BIM Implementation Strategy, chaired by the Ministry of Development).
- Brainstorming ideas to prepare RDI projects oriented towards mitigating and adapting to climate change.
- Obtaining the maximum BREEAM® classification in Spain for the EUIPO extension project, undertaken by FCC Construcción.



Cañas-Liberia Road (Costa Rica).

Future challenges

- Prepare proposals for projects in line with the RDI policy and priority areas for the company, such as BIM (Building Information Modelling) and Industry 4.0.
- Consolidate and strengthen involvement by clients and public authorities in the development of innovation projects.
- Strengthen links with universities and technology centres and organisations working in the innovation field.
- Certify RDI processes on site and leverage tax benefits in countries where FCC Construcción is present.
- Encourage involvement and participations by the various organisations in certifying projects.
- Strengthen knowledge management within the organisation by means of innovative techniques hinging on digitisation, reference management, training and experience acquired by the company.
- Apply the company's own methodology, SAMCEW© 2015 FCC Construcción S.A., to assess sustainability in civil engineering works and build awareness of it in external forums.

Engaging with our stakeholders

Dialogue and informative transparency

Main communication channels with stakeholders



FCC One Construcción

Main internal communication channel for company employees, featuring company news, statements, procedures of different organisations, publications, videos and technical documentation.



Websites and social media

Websites of FCC Construcción and FCC Industrial in different geographical locations: (Portugal (RRC), UK and Ireland, Romania, Brazil, Canada, Chile, Costa Rica, United States, Mexico, Panama and Peru); FCCCO Live, created as a videoblog for external communication; FCCCO YouTube channel; and FCC Construcción's LinkedIn and Instagram accounts.



FCC City

Online channel that allows two browsing types: a virtual city and a world map, showing more than 120 special works undertaken by FCC Construcción, organised by continents and countries.



Corporate communications

The company's corporate communications are channelled via press coverage, publications, posters, leaflets, the Friday newsletter, the "Information Capsule" channel, topic videos and corporate videos, manuals, conference papers and reports, in both hard-copy and digital format.



Sustainability Report and Environment Communications

Publications for internal and external communications with all stakeholders, presenting the economic, environmental and social performance of the organisation. Although they are published in alternate years, the data is updated every year.



Assessing customer satisfaction

Customer satisfaction is measured by the final survey upon the works, where our clients assess a number of different aspects of the work done by FCC Construcción, giving them a score from 1 to 4 and grading their importance.



Client interlocutor

Person assigned to explore areas for cooperation, address any suggestions received, process the information compiled at meetings with clients and subsequently communicate any actions undertaken because of their suggestions.



Fairs, conferences, courses and congresses

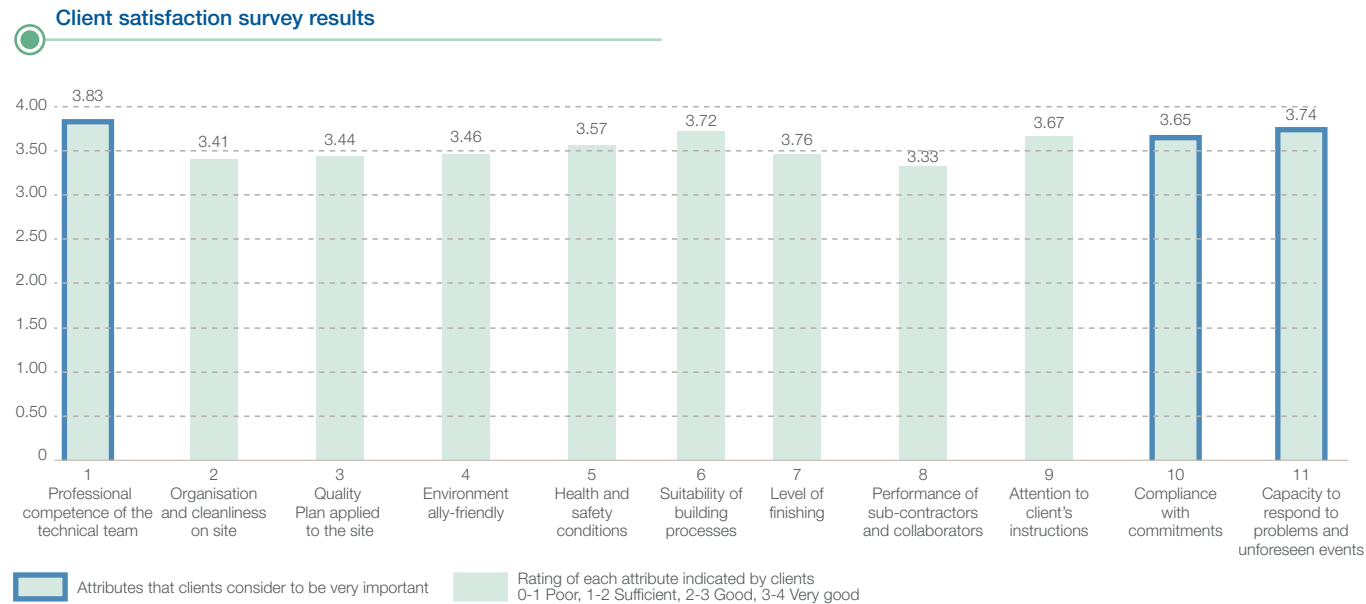
Presence at many forums, conferences, courses, talks on current issues, public presentations, working groups and other events, to share knowledge and disseminate the information and experience acquired in our day-to-work and research activities.



Associations

FCC Construcción is a member of and plays an active role in numerous associations and sector organisations, including AENOR, Spanish Rock Mechanics Society, AETOS, ACHE, PTE Foundation, Technical Ports and Coastlines Association, AEC, Global Compact Spanish Network, SPANCOLD, APTB, ENCORD, Technical Roads Association, CICCOP, ECTP and SEOPAN.

Clients



Toronto metro project (Canada).



Salamanca hospital (Spain).

Local communities

Some social projects undertaken by our worksites



La Valdeza (Panama)

As part of the Social Responsibility Plan of La Valdeza quarry, in the district of La Chorrera, FCC Construcción is working extensively with the communities involved, in order to develop a large number of activities. Specifically, in 2016 a painting a drawing course was organised for children aged 6–12 at the 19 de Abril community; a medical tour was carried out in the Guadalupe community sector, treating more than 90 people (children, teenagers, adults and old people); a needlework course was organised for people living in nearby communities to specialise in making curtains and valances; and, in partnership with the Panamanian Ministry of the Environment, an environmental education day was organised for schoolchildren, to coincide with the Month of the Oceans.



Lima Metro (Peru)

All the Construction division's projects and workplaces implement a management system to identify and assess any environmental and social aspects of relevance for the local communities we interact with.

It is remarkable the social-management system implemented in the Lima Metro, which is based on integrated communication with all the actors involved, providing them with information on any ad hoc actions being undertaken. To strengthen this communication, there is specific personnel defined for dealing individually with communities within the project's area of influence. The system includes programmes, such as complaint-handling and resolution, local employment, communications, social monitoring, handling social impacts and institutional alignment, among others.



Matinsa offices and conservation centres (Spain)

Matinsa works with the "Llamada Solidaria" Foundation's campaign to support research into rare diseases, fostering research with a view to relieving their serious clinical and social effects.

Collection points have been installed at offices and conservation centres, delivering 155 unused mobile terminals. These terminals are classified for reuse or recycling, obtaining financial benefits that are given to the foundation, which distributes them among the associations they work with.



Lima Metro Project (Peru).



Mersey Bridge (UK)

The Mersey Bridge project is characterised by the desire to become a socioeconomic catalyst for the area where it is located and for all local people. Thus, since the works first began, multiple social programmes with local communities have been launched.

In 2016 volunteers have continued to explain the story of the bridge to their fellow citizens. Other actions with the community have also been carried out, including converting a plot of land into a school garden for pupils at Halton primary school, working to build awareness of issues related to road safety, and helping a local rowing club to renovate its facilities.

2016 Milestones

Engaging with our stakeholders

- Renovation of FCC Construcción digital channels (internal and external), unifying the company's image, improving the browsing experience and optimising performance.
- Publication of websites and FCCCOLive videoblog under Life Ray technology, which meets level AA of the standard UNE 139803:2004 and assures the accessibility of content.
- New Instagram profile for FCC Industrial.
- Participation in numerous events to disseminate and publicise knowledge.
- High score for our site teams' professional ability (3.8 out of 4) awarded by our clients in the final surveys upon the works.
- Preparation of a report with the conclusions of the "Eco-cities Trends Observatory", identifying social perceptions and society's needs for the cities of the future.
- Numerous social projects with benefits for local communities undertaken by FCC Construcción worksites.



Concha de Artedo Bridge (Spain).

Future challenges

- Continue to build FCC Construcción's social-media presence.
- Complete publication of websites in countries where FCC Construcción operates (Saudi Arabia, Qatar and Spain).
- Increase international expansion of "FCC One", our internal communication channel, to connect all employees.
- Extend the mechanism for formal complaints on social or environmental impact, employment practices and/or human rights to include all the organisation's stakeholders.
- Increase the record of communication with stakeholders to increase the variety of topics and stakeholders.
- Whenever works are not explicitly received by the client, establish a system to monitor any unforeseen circumstances that could give rise to clients' complaints (faults due to the use of the works or otherwise).
- Define the process for managing the organisation's knowledge and organise specific training for the personnel involved.
- Communicate to suppliers and subcontractors the criteria used to assess their performance.

Our professionals

Workforce

Breakdown by gender, contract type and geographical location

	2015	2016					
	Total	Total	Distribution by sex		Distribution by contract type		
			Women	Men	Indefinite	Temporary	Assigned
Spain	4,014	3,516	430	3,086	1,404	919	1,193
EU (rest)	315	295	76	219	149	139	7
US and Canada	24	20	3	17	17	3	0
Latin America	1,864	1,236	156	1,080	528	695	13
Rest of the World*	634	604	47	557	97	506	1
Total	6,851	5,671	712	4,959	2,195	2,262	1,214

* Rest of the World: Asia, North Africa and Middle East.

Breakdown by gender and professional category

	2015			2016		
	Total	Women	Men	Total	Women	Men
Category 1	638	111	527	513	76	437
Category 2	1,428	233	1,195	1,358	200	1,158
Category 3	840	376	464	651	308	343
Category 4	3,945	182	3,763	3,149	128	3,021
Total	6,851	902	5,949	5,671	712	4,959

Category 1: Senior Managers, Directors, Service Heads and Area Managers

Category 2: Graduates, Section Heads, Office Managers, Workshop Managers and other qualified graduates.

Category 3: Assistants, administrative workers and middle managers

Category 4: Operators and subalterns.

2016

5,671
employees

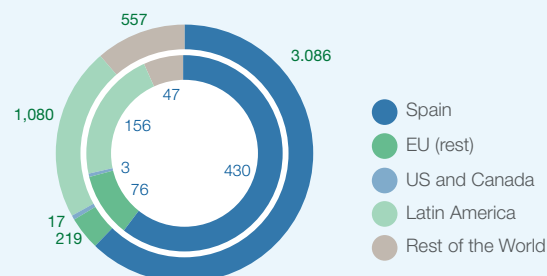


4,959
men

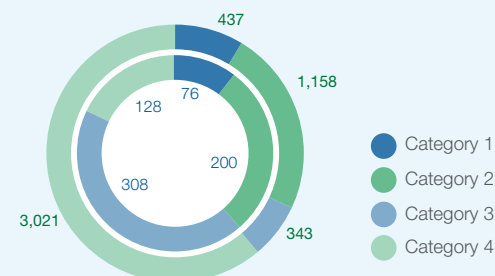


712
women

Staff by gender and geographical location



Staff by gender and professional category



Breakdown by age and professional category

	2015				2016			
	Total	< 30 years	30-50 years	> 50 years	Total	< 30 years	30-50 years	> 50 years
Category 1	272	0	150	122	216	0	108	108
Category 2	834	9	646	179	642	14	480	148
Category 3	573	10	403	160	448	6	296	146
Category 4	2,335	113	1,506	716	2,210	106	1,397	707
Total	4,014	132	2,705	1,177	3,516	126	2,281	1,109

Data solely for personnel on payroll in Spain.

Category 1: Senior Managers, Directors, Service Heads and Area Managers

Category 2: Graduates, Section Heads, Office Managers, Workshop Managers and other qualified graduates.

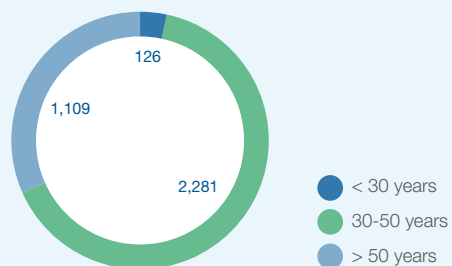
Category 3: Assistants, administrative workers and middle managers

Category 4: Operators and subalterns.

Staff by age (Spain)

3,516
employees

2016



Yesa Dam (Spain).

Key skills training and development

Number of hours of training (distributed by sex and professional category)

	2015		2016	
	Total	Total	Women	Men
Category 1	8,260	3,093	633	2,460
Category 2	43,744	52,538	9,020	43,518
Category 3	13,932	8,702	2,720	5,982
Category 4	29,446	19,260	591	18,669
Total	95,382	83,593	12,964	70,629

Category 1: Senior Managers, Directors, Service Heads and Area Managers.

Category 2: Graduates, Section Heads, Office Managers, Workshop Managers and other qualified graduates.

Category 3: Assistants, administrative workers and middle managers.

Category 4: Operators and subalterns.

Hours and expenditure on training (distributed by topic areas)

	Hours		Expenditure (€)	
	2015	2016	2015	2016
Environment	576	1,522	6,027	10,899
Occupational Health and Safety	21,838	19,922	339,548	415,345
Quality	635	1,032	19,620	12,159
Economic, legal and technical knowledge	72,333	45,110	1,254,052	664,327
Other training areas		16,007		488,196
Total	95,382	83,593	1,619,247	1,590,926

Arroyo La Charca-Grimaldo high-speed rail section (Spain).

Occupational Health and Safety

	2015				2016			
	Frequency index ⁽¹⁾	Seriousness index ⁽²⁾	Incidence index ⁽³⁾	Absenteeism index ⁽⁴⁾	Frequency index	Seriousness index	Incidence index	Absenteeism index
FCC Co Spain	8.34	0.34	1,471	4.03	10.20	0.49	1,973	4.57
Total FCC Co	16.23	0.39	4,004	4.08	9.26	0.30	2,032	3.35
SEOPAN average (Spain)	11.23	0.36	2,096	–	12.41	0.44	2,156	–
Sector average (Spain)	36.70	1.19	6,315	–	39.30	1.31	6,794	–

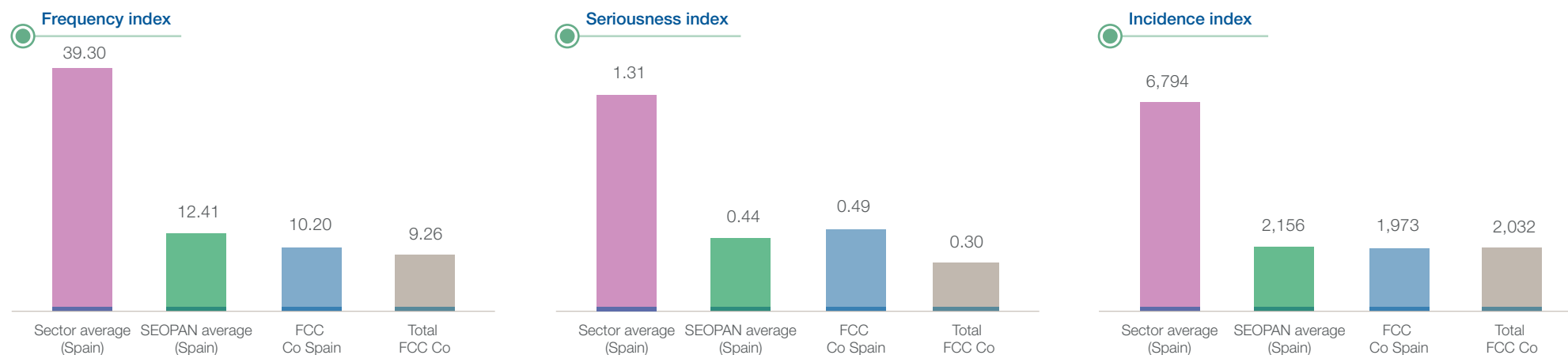
⁽¹⁾ Frequency index: number of accidents with sick leave for every 1,000,000 hours worked.

⁽²⁾ Seriousness index: number of working days lost due to recorded sick leave accident for every 1,000 hours worked.

⁽³⁾ Incidence index: number of accidents with sick leave for every 100,000 workers, divided by the average number of workers.

⁽⁴⁾ Absenteeism index: number of days missed due to illness divided by the average number of workers.

Note: The breakdown of accidents by sex is not relevant in the construction sector, as practically all the workers are men.



2016 Milestones

Our professionals

- Restructuring the workforce in order to adapt it to production, with 649 departures.
- Launch of outplacement programmes, with 196 people involved.
- Agreement signed between FCC Construcción and the Ministry of Health, Social Services and Equality to increase the presence of women in management positions.
- "Equality at Work" mark awarded to FCC Industrial and FCC Construcción.
- Participation in the worldwide UN campaign "Paint Your World Orange" to fight against gender-based violence.
- Reactivation of "Family Plan", safeguarding employees' welfare and their children's social integration.
- Participation in the programme "Development for Management: Women With High Potential", organised by the Industrial Organisation School (EOI).
- More hours of training received per worker (15h in 2016, compared with 14h in 2015).
- Start of training in BIM (Building Information Modelling) for professionals within the organisation.
- Accident rates still well below the sector averages.
- Best practices applied on our sites to assure better active security, and "Best Practices Report" published, containing examples that can be extended throughout the organisation.
- Control charts implemented for four-monthly monitoring of OHS performance.

Future challenges

- Strengthen workers' technical training and geographical mobility.
- Develop campaigns to integrated people with disabilities.
- Foster excellence in training by undertaking tests/assessment after the training actions.
- Improve the international reach of training.
- Extend the mechanism for formal complaints on social or environmental impacts, labour practices and/or human rights and include all the organisations stakeholders.
- Maintain accident rates at a minimum.
- Work on implementing best practices for road safety and health awareness.
- Encourage and strengthen partnerships with authorities, universities and other firms on OHS-related topics.
- Develop a campaign for information and practical training data-viewing screens and guidelines for using them properly from an ergonomic point of view.
- Develop a campaign to provide office personnel with regular voluntary medical check-ups.



Environmental management

Environmental approach and good practices

Implementation of best practices

	2015	2016
Worksites supplying data on best practices	134/136 (99%)	90/91 (99%)
Implementation of best practices on worksites	24/27 (89%)	26/29 (90%)
Worksites meeting the environmental objective	121/134 (90.3%)	83/90 (92.2%)

Responsible consumption

Water consumption (m³)

	2015	2016				
	Total	Total	Spain	European Union (rest)	Latin America	MENA*
Water consumption	2,100,743	1,665,749	716,569	53,598	418,730	476,852

Energy consumption (GJ)

	2015	2016				
	Total	Total	Spain	European Union (rest)	Latin America	MENA*
Direct energy consumption	1,184,145	1,295,599	150,342	39,083	206,721	899,453
Consumo indirecto de energía (electricidad)	92,542	80,234	42,109	5,657	29,270	3,198
Total	1,276,687	1,375,833	192,451	44,740	235,991	902,651

* MENA: Middle East/North Africa.



Callao Port (Peru).

Materials consumption (t)

	2015	2016				
	Total	Total	Spain	European Union (rest)	Latin America	MENA*
Asphalt agglomerate	393,452	344,896	149,146	49,003	111,124	35,623
Concrete	3,628,935	2,622,068	929,302	49,013	630,974	1,012,779
Steel	123,721	451,018	370,568	3,498	44,011	32,941
Bricks	8,191	5,073	4,250	84	0	739
Glass and metals	2,215	5,696	4,646	265	124	661
Aggregates, soil and graded aggregates	30,627,764	18,050,098	6,334,009	0	7,033,683	4,682,406
Topsoil	800,745	406,288	125,560	103,060	177,452	216
Paint, solvents, release agents, concrete-curing liquids, accelerants, fluxing agents, antifreeze and epoxy resins	24,812	7,660	6,554	92	1,007	7
Oil, grease and other harmful or hazardous substances	1,402	2,250	928	163	705	454

* MENA: Middle East/North Africa.



Line 5 of Bucharest metro project (Romania).



Almonte Viaduct (Spain).

Climate change

Greenhouse-gas emissions (t CO₂e)

	Total FCC Construcción*		FCC Construcción Spain**	
	2015	2016	2015	2016
Total GHG emissions	345,158	296,784	108,926	62,598
Direct emissions (Scope 1)	86,768	96,446	13,588	4,960
Indirect emissions (Scope 2)	10,496	7,977	6,058	2,632
Other indirect emissions (Scope 3)	247,894	192,361	89,280	55,006
GHG emissions avoided by implementing best practices	22,349	17,338	4,398	4,594

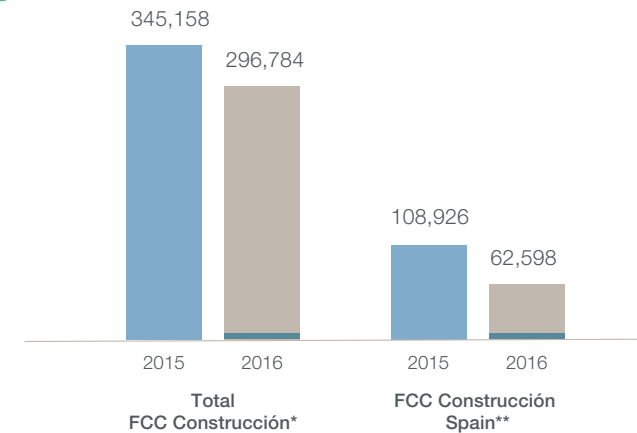
* Emissions reported by the different organisations and countries, without third-party verification.

** Emissions verified by AENOR.

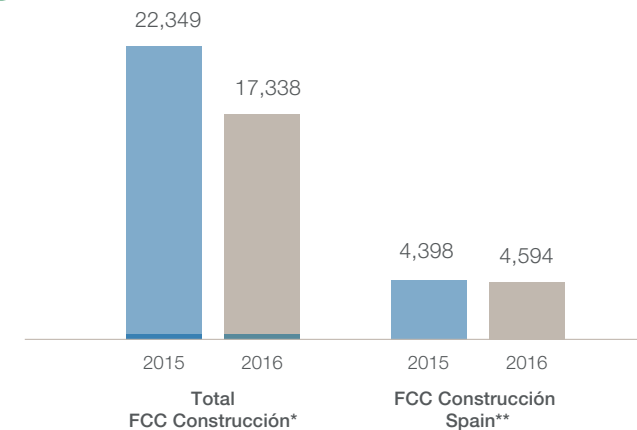


Mersey Bridge (United Kingdom).

Total GHG emissions



GHG emissions avoided by implementing best practices

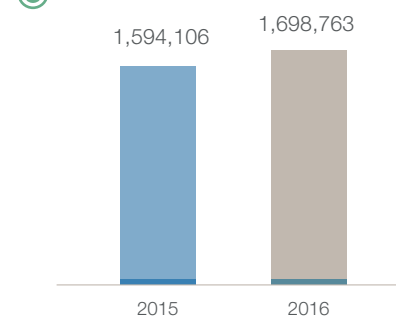


Management of waste and effluents

Generated waste (t)

	2015		2016			
	Total		Total	Spain	European Union (rest)	Latin America MENA*
Hazardous waste	1,141	587	231	70	99	187
Non-hazardous waste	1,592,965	1,698,176	427,646	4,142	911,015	355,373
Total	1,594,106	1,698,763	427,877	4,212	911,114	355,560

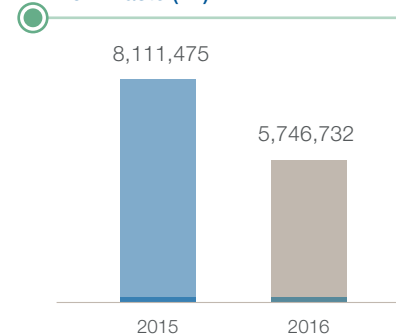
Generated waste (t)



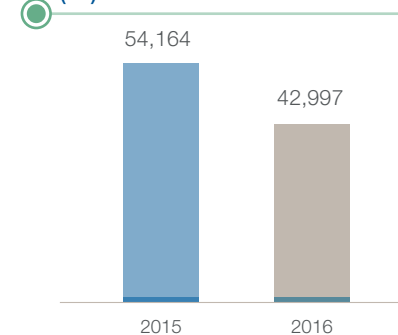
Use of resources coming from waste (m³)**

	2015	2016
Surplus soil and stones	8,076,862	5,613,983
Surplus clean rubble	34,613	132,749
Total	8,111,475	5,746,732

Use of resources coming from waste (m³)**



Water reuse (m³)



Water reuse (m³)

	2015	2016
Recycled or reused water on site	54,164	42,997

* MENA: Middle East/North Africa.

** Data of the projects undertaken by FCC Construcción (FCC Industrial data are not included).

Protecting biodiversity

Land adjacent to or located in natural protected areas or in non-protected areas of high biodiversity value



Impact type	2015		2016	
	Number of sites	Surface (M m ²)	Number of sites	Surface (M m ²)
Location in natural or protected areas or in areas of high value for biodiversity	4	1,000	5	1.13
Location in areas with landscape listed as relevant	16	1,016	11	16.51
Impact on natural watercourse in protected areas	1	0.2	1	0.02
Impact on natural watercourse in areas of high biodiversity value	7	8.4	5	8.39
Impact on watercourses with very high value or relevant for local communities and indigenous populations	7	8.9	8	8.98
Impact on catalogued or protected vegetation	16	10.3	12	9.90
Impact on catalogued or protected animal species	9	15.5	10	15.52

Corgo Viaduct (Portugal).



Alcántara-Garrovillas high-speed rail section (Spain).



2016 Milestones

Environmental management

- Adaptation of FCC Construcción Management and Sustainability System to the new standards ISO 14001:2015 and ISO 9001:2015.
- Best environmental practices implemented and developed on FCC Construcción and FCC Industrial sites.
- Implementation of #CeroPapel awareness-building campaign, aiming at reducing paper use in our day-to-day work at all workplaces attached to the Construction division.
- FCC Construcción obtained the "Calculate and Reduce" seal of the "Register of Carbon Footprint and CO₂ offsetting and absorption projects" for its carbon footprint of financial year 2015, awarded by the Ministry of Agriculture and Fisheries, Food and the Environment (Spain).
- Adhesion to the "#PorElClima Community" set up following the Paris Agreement to establish undertakings to reduce emissions.
- National Award for environmental management and corporate sustainability given by European Business Awards to FCC Industrial.
- Energy audits carried out 28 workplaces of FCC Construcción, FCC Industrial and Matinsa in Spain.
- Reuse of waste generated by Matinsa conservation tasks.
- Active participation in the KPESIC platform to foster environmentally sustainable construction in Latin America and the Caribbean.

Future challenges

- Incorporate best social practices into the current list of best environmental practices.
- Strengthen efforts to build awareness among own workers, suppliers and subcontractors.
- Extend the GHG inventory to cover international operations and verify the emissions report.
- Establish strategies for the company to adapt to climate change.
- Implement energy-efficiency measures at Megaplas: replace the factory's lighting with LED units and liquid fuel with natural gas.
- Draft a basic guide to energy efficiency, containing measures that can be implemented by sites to save energy and money.
- Explore the possibility of incorporating hybrid or electric vehicles into the Matinsa fleet.
- Incorporate circular-economy criteria into business processes.



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