### Communication Network

News for the people of **FCC** 



FCC approves the Group's CSR policy for the sustainable development of its activities





New Housing Planjust for the Group's employees and immediate family members

## Methamorphosis

from waste treatment facilities to bioenergy















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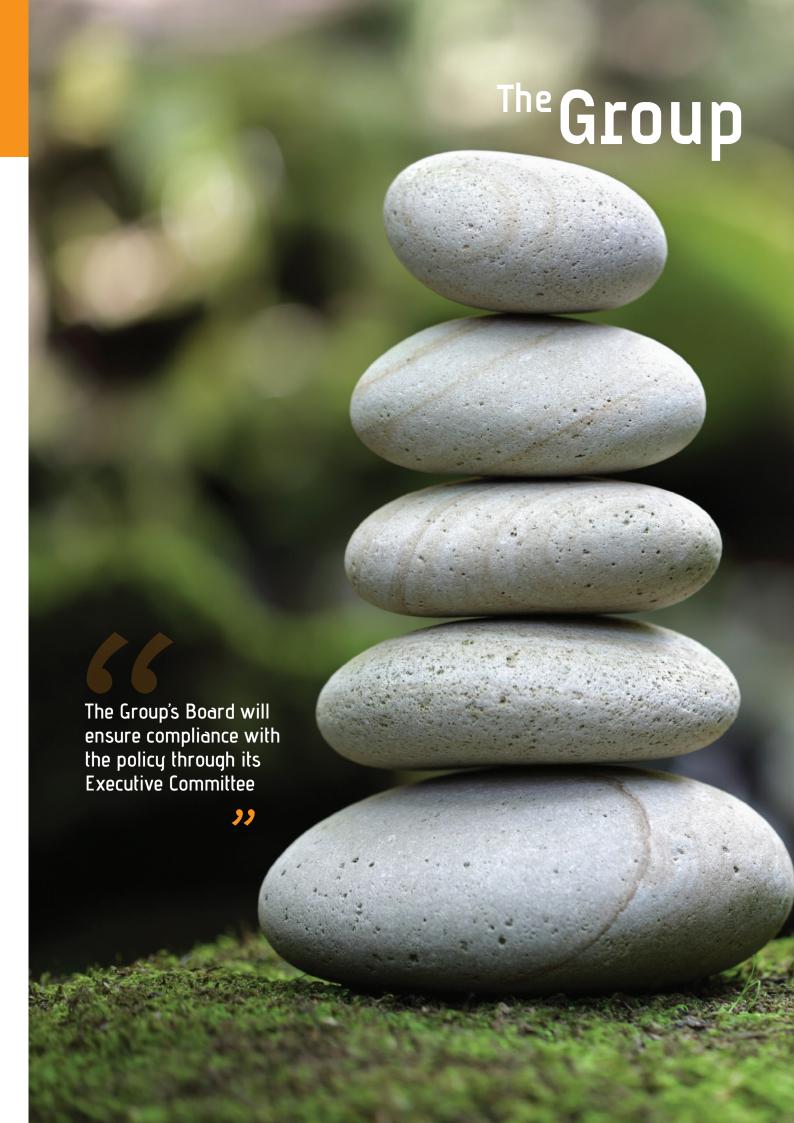
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The commitment to ethics, the environment, and the contribution of value to society in all of its business activities and the areas where it operates are the key pillars of this policy.

The Board of Directors of FCC has approved the Group's Corporate Social Responsibility (CSR) Policy that sets out an action framework for the sustainable development of its business activities. This Policy is applicable to the entire Group. Under this policy, FCC meets the recommendations of the Spanish National Securities Commission (CNMV), which require the Company's highest governing body to approve a policy of socially responsible commitment.

In particular, the Policy approved by the FCC Board establishes the Group's commitment to ethics, environmental protection and the contribution of value to society in all of its business activities and in all of the geographical areas in which it operates.



The Group's Board will ensure compliance with the policy through its Executive Committee

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Furthermore, the document brings together the values and principles of responsible conduct that must be present in the Group's diverse actions. These include: quality and innovation to work, properly meeting the demands of our clients with solutions, foresight and distinction; integrity to act under ethical codes of conduct; efficiency that helps to meet business objectives with resource optimization criteria; and social proximity and commitment that encompass the occupational wellbeing of people within the Group and the wellbeing of the communities where it operates.

#### Alignment with the objectives of the United Nations

This CSR Policy also establishes the fundamental objective of defining the Group's priorities in the area of Corporate Social Responsibility. FCC has aligned its priorities with those of the United Nations Development Agenda, which created a proposal towards the end of 2015 setting out 17 Sustainable Development Goals (SDGs) to be achieved by 2030. Spain and 193 other countries have committed to the goals.

The 17 SDGs define the new challenges, including the fight against poverty and en-

vironmental protection, with the aim of having UN member States improve the lives of thousands of people around the world by means of a public-private alliance, comprising different governments, NGOs, companies and citizens.

#### Socially responsible conduct

Under the alignment with the goals of the United Nations and within the Group's CSR Policy, FCC has established three priorities regarding its socially responsible conduct. The first of these priorities is the connection with citizens, when establishing objectives that provide greater knowledge and understanding of the needs of citizens and public administrations, to subsequently promote with them actions that improve the development of cities and minimise the impact of their activities.

The second priority relates to smart services to drive innovation and quality initiatives for designing the best sustainable solutions for mitigating and adapting to climate change, as well as the extension of positive social impacts and contribution to local development. The third priority regards exemplary performance, establishing objectives that improve the control and supervision of its own conduct, as well as that of its suppliers and contractors, and is geared towards the protection of FCC personnel.



The Group's Board will ensure compliance with the policy through its Executive Committee.

The Corporate Social Responsibility Committee of FCC, the Corporate Responsibility Committees of the business areas and the Corporate Responsibility Management (within the Communication and CSR Management) will implement and drive the policy within the organisation.

For the CSR Policy to be properly implemented, the Company will need to establish specific projects responding to the commitments contained therein. In this regard, work is already being carried out on drawing up a new Master Plan proposal that will be submitted to the Board, which develops the CSR Policy and contributes to the Group's business objectives in an environment in which socially responsible conduct is increasingly sought in client projects.

The Corporate Social Responsibility
Committee of FCC, the Corporate Responsibility
Committees of the business areas
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(within the Communication and
CSR Management) will implement and drive
the policy within the organisation





### New Housing Plan,

## just for the Group's employees and immediate family members

FCC continues with its Housing Plan that is only for FCC Group employees and immediate family members (parents, children, and siblings), offering a new housing development.

The campaign offers a 10% discount over the sales price for the general public, the possibility of making a reservation for a home before goes on sale, and special finance terms for employees. The new private housing promotion launched by FCC is "Residencial Buenavista Tres Cantos", situated in Tres Cantos (Madrid).

The development consists of 33 semiattached homes, all of them with garages, common landscaped areas, swimming pool and children's playground. Marketing of these homes began on 1 September.

The homes will have 220 m2 of floor space divided into a ground floor, first floor and attic.



Read Link

Check all the information on the Residencial Buenavista Tres Cantos.



## FCC improves the energy performance of its Las Tablas (Madrid) headquarters



In keeping with its sustainable development policy, rational management of resources, and the search for innovative solutions that contribute to the preservation of the environment, FCC has implemented an energy management system at its Las Tablas (Madrid) headquarters based on ISO-50001 standard.

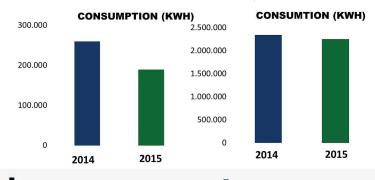
The system requires the measurement of energy consumption at the various facilities so that, in the event that an unexpected increase is detected, the reasons behind such increase are identified and measures are implemented subsequently with the aim of improving energy performance.

During the 2014-2015 period, FCC was able to improve the energy efficiency at its headquarters, significantly reducing the consumption of natural gas and electricity. The energy efficiency measures implemented during the 2014-2015 period were as follows:

- Optimising lighting and air-conditioning equipment.
- Installing meters for measuring the main points of energy consumption.
- Optimising power capacity.
- Replacing equipment with other enhanced efficiency equipment (LED lighting at the parking facilities, halls, and lifts).

Thanks to these measures, it was possible to reduce CO2 emissions by 27% and 4%, respectively.

### Natural Gas and Electricity results in the 2014–2015 Gas Natural Energía Eléctrica



27% Emissions ES CO<sub>2</sub>

4% Emissions CO<sub>2</sub>





The Company's eighth facility of this type in operations plus another one under construction

FCC Environment, FCC's subsidiary in the United Kingdom and the Buckinghamshire City Council, commissioned the Greatmoor EfW plant situated in Aylesbury District in the central part of the Island. Awarded in 2013, the 30-year contract is worth 1.095 million Euros (920.4 million pounds). The project was funded with 250 million euros (209.7 million pounds). This sum also includes the construction of two waste transfer facilities (High Heavens and Amersham) and a new access road. The facility is fully in operations, has 46 full-time workers and generates up to 2.3 million pounds per year for the local economy of the Aylesbury Vale (new jobs and contracts with local suppliers).

Designed and built by the Japanese company Hitachi Zosen IINOVA (HZI), Buckingham (U.K.) the EfW plant is FCC's eighth plant in operations. There is also

another plant under construction. The funds for the project were financed by FCC during the construction phase and were mostly repaid by the client after the plant was commissioned.

#### From waste to energy

The facility will treat up to 300,000 ton of waste per year and will generate 22 megawatts of electricity; the equivalent to the electricity needs required to power up to 36,000 homes and will be the primary disposal point for all of Buckinghamshire's local waste. Aylesbury Vale District and some of the county's Household Waste Centres will deliver waste directly to the facility with the three southern district councils (South Bucks, Chiltern y Wycombe) and the rest of the HWRCs will use the waste transfer station at High Heavens, near Wycombe. The waste transfer station will be used to bulk waste for its subsequent transport by truck to the new EfW facility.

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Paul Taylor, the Chief Executive of FCC's subsidiary in the United Kingdom said during the inauguration ceremony that the "Greatmoor EfW will convert Buckinghamshire's household and business waste, that is, material that cannot otherwise by recycled, into renewable energy. This will reduce the county's dependence on landfill disposal". The 30-year contract represents significant financial and sustainability benefits for Buckinghamshire.

According to Taylor, ": "The construction of Greatmoor EfW marks an important step forward for FCC Environment as the business continues to develop, focusing on its customers' requirements for extracting value, in the form of energy, from the waste left over after recycling has taken place. Greatmoor EfW represents an integrated service that the county can be proud of."

#### Addresses environmental challenges

Antonio Alfonso, managing director of FCC Medio Ambiente Internacional, said, "The Greatmoor EfW marks a step forward for FCC as a global partner of cities and administrations that want to address environmental challenges. The commissioning of this plant showcases our ability to provide energy-from-waste solutions with public-private finance models (PPP)".

In 2011, Buckinghamshire City Council accepted FCC Environment's bid for the non-recyclable waste treatment contract. In April 2013, after securing the necessary urban and environmental permits, the Buckingham City Council awarded the definitive contract for a term of 30 years.



Awarded in 2013, the 30-year contract is worth nearly 1.095 million euros (920.4 million pounds)

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## FCC completes the first construction phase of the Dallas (U.S.) recycling facility buildings

FCC Environmental Services is building the three structures comprising the waste recycling facility in Dallas (U.S.) after having completed the phase involving the building of the industrial premises.

Work is going ahead as scheduled under the terms of the project and include the construction of the main sorting plant building using the most advanced technology in the industry. The Company is also completing work on the two adjacent facilities, the office building, locker rooms, the visitors' centre and a workshop for mobile machinery.

The size of the recycling plant is 5,400 m2, of the office building 840 m2, and the workshop about 300 m2. The total size of the facilities is 5.3 hectares, equivalent to the size of eight soccer fields.

Construction and operations of this recycling facility is contemplated in the contract awarded to the company less than a

year ago. FCC will be handling all of the city's recyclable waste over the next 15 years. The contract can be extended for another 10 years and turnover will be approximately 270 million euros.

The structure of the automatic sorting plant was successfully completed in the first phase using the latest technology. It will be able to sorting and classification techniques, including optic sorters and the largest sieves in the sector.

After completing this project phase, work will continue on the installation of the various technical equipment inside the buildings such as waste sorting machinery communication networks, and the work furnishings of the workshops and offices.





## FCC Environment CEE, awarded a contract for cleaning of drainage systems in two of Austria' railway tunnels

FCC Environment CEE (A.S.A.) was awarded the contract put out to tender by the Austrian Railroad Company (ÖBB) for cleaning the drainage systems of the 11 km long Wienerwald Tunnel and the smaller Pomersdorf tunnel.

The contract also contemplates the elimination of waste from pipes and audio-visual recording of the pipes before and after the cleaning process. This tunnel cleaning process is to be performed twice a year.

This type of railway tunnel cleaning work is being carried out without closing traffic thanks to an innovative technology that enables train to travel at a speed of 250-300 km/hour while work is being performed.

Cleaning will begin in November of this year and will be performed in 500 metre-long sections by means of remote control from the exterior of the tunnel. The machines that will be used to clean the drainage pipes will also be able to retransmit the process in real time using a camera.



#### Innovative technology

The Austrian Railroad Company (ÖBB) launched the tender process in 2013 and gave all bidders the opportunity of acquiring the technology necessary to be able to clean the drainage of the tunnels without having to shut traffic. In this way, tunnels would only have to be closed for two hours to be able to introduce the machinery inside the tunnel and anchor it.

This represents a great advantage for ÖBB since it is not necessary to divert railway traffic, a very expensive operation

## FCC Medio Ambiente, present at the Ecofira Environment Fair with a large stand



The Smart City and Sustainability concepts at the spotlight

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FCC Medio Ambiente participated in the Environment Fair of Environmental Solutions (Ecofira) an international event that was held in Valencia on 28 and 29 September.

The Company had a 200 m² stand where other FCC Group Companies and collaborators were also present, such as Sistemas y Vehículos de Alta Tecnología (SVAT S.A), Servicios de Levante (SELESA), Valoración y Tratamiento de Residuos (Vytrusa), and FCC Equal E.E.E (Special Job Company that co-

llaborates in the integration of the disadvantaged in the job market).

FCC Medio Ambiente's participation in Ecofira bolsters the Company's positioning in initiatives for improving the quality of life of people through sustainability and the smart city concept.

FCC is a company committed to the wellbeing of people. The diversification of its activities enables it to provide a global approach to communities ranging from the development of infrastructures to the provision of environmental and urban services. Each day, more than 50,000 FCC people throughout the world interact with the communities in search of day-to-day sustainability.

The creation of socially integrated cities where citizens ae able to enjoy a better qua-

#### Ecofira awards the Innovation Diploma 2016 to FCC Medio Ambiente

The Innovation Diploma 216 was awarded to FCC Medio Ambiente for its "50 collection containers" initiative and the incorporation of hybrid electric vehicles in its activities. Elena Cebrián, Councilwoman for Agriculture, the Environment, Climate Change and Rural Development, handed out the prize.

This recognition of the work carried out by the Levante I Regional Office headed by Salvador Otero rewards the pioneer wager of the Valencia Regional Government. It underscores Company's close cooperation with the City Council whose objective is to comply with current regional Law, as contemplated in the Comprehensive Waste Plan and the Zone Plan for the above-mentioned city, that promotes the implementation of sorted organic waste collection. Besides the "50 Container" initiative, FCC unveiled a fleet of hybrid electric vehicles, with zero emissions, featuring a soundproofed lift for containers. This represents yet another step in fulfilling its goal, which is to improve of the community's quality of life.

Another commitment to improving the quality of life of citizens as part of the sustainable and intelligent city philosophy supported by FCC that has been very positively received by Joan Ribó, the mayor of Valencia, and other municipal managers.

The pilot test for the "50 container" initiative led FCC managers to propose to the Valencia City Council the use of a separate vehicle, easily identifiable by neighbours, for the collection of organic waste. To add a significant qualitative element to the project, FCC incorporated a hybrid electric truck that is non-polluting in terms of emissions as well as noise. A total of 26,909 people will benefit from the pilot test in which FCC incorporates the innovative, zero emissions, hybrid electric vehicle.











## With the joint participation of Group and collaborating companies

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lity of life and the smartest services is one of the challenges that FCC, jointly with public entities, is currently addressing.

FCC Medio Ambiente, with more than 100 years' experience, operates in major cities and towns nationwide and around the world. The most important sustainability challenges are in cities and, as such, are the places for developing innovative solutions that have a significant and rapid impact.

FCC Medio Ambiente has an unwavering goal: to be the leader in the design and operation of the best solutions for transforming cities into more sustainable communities. To this end, three essential pillars underpin our core priorities: connection with the community, innovation applied to smart services, and firm commitment.



## FCC and the newspaper Levante organized the "New Times for Environment Management"

FCC Medio Ambiente, in collaboration with the newspaper Levante, organized several seminars on environmental management to disseminate the division's new policy in the Valencia Autonomous Community and to build bridges with local public entities.

The series of seminars on "New Times for Environment Management" with two sessions already having taken place, is the result of the work carried out by FCC Medio Ambiente's Levante I Regional Branch Office, headed by Salvador Otero, and the managing director of Medio Ambiente, Jordi Payet.

The first seminar featured Elena Cebrián, Councilwoman for Agriculture, the Environment, Climate Change and Rural Development of the Generalitat Valenciana. On 24 May, she gave a speech on the "New Environment Policy of the Generalitat Valenciana". Ximo Puig, president of the Generalitat Valenciana was in charge of the closing speech of the session that counted with the participation of more than 200 people.

In this first seminar, Jordi Payet, managing director of FCC Medio Ambiente, stressed the fact that "preservation of the environment is one of the key pillars of FCC." Payet mentioned the Citizen Services Group's pioneer implementation of new fuels and hybrid an electric vehicles that minimise the carbon footprint and reduce the noise level of the company's day-to-day activities. "FCC is committed, in alignment with the European Union, to reducing  $\mathrm{CO}_2$  emissions by at least 20% before 2020".

Lastly, he also mentioned the Group's 100 years' experience in environmental management currently endorsed by the fifteen million people "to whom we provide our services throughout the country".

Juliá Álvaro, the secretary of the regional government, Joan Piquer, the managing director of Climate Change, the chairman of the Valencia Federation of Municipalities and Provinces and mayor of Elda (Alicante), Jorge Rodríguez, were amongst those who participated and accompanied the Councilwoman of Agriculture, Elena Cebrián and Jordi Payet in the second conference which was held on 5 July.

In his speech, Payet referred to the importance of municipalism as the "backbone of public entities and the administration that is closest to the community and, at the same time, the one that tackles on a daily basis the requirements and obligations of cities in relation to the environment".

The managing director of FCC Medio Ambiente announced that "our core priorities are underpinned by three key pillars: connection with the community, smart services, and a firm commitment."

## Paterna renews its fleet of cleaning and waste collection vehicles

FCC and the Paterna City Council (Valencia) unveiled three trucks that will be part of the fleet of 25 vehicles used for cleaning and collecting waste in this municipality in Valencia. The new additions are a new collection-compression vehicle that will provide services mainly in La Canyada plus two Piaggio Porter ancillary vehicles that will be replacing others that are more than 14 years old.

The process for replacing work machinery that is being carried out by FCC and the City Council through its Infrastructures Area, aims to improve the efficiency and sustainability of the cleaning service throughout the entire town, wagering on the use of more modern, silent, functional, and less polluting vehicles.

#### Commitment

The new collection-compressing truck has a capacity of 24 m³. It will be in charge of collecting solid urban and garden waste. The two ancillary Piaggio Porter vehicles will be used as satellite vehicles to repair zones and for more agile and precise manoeuvring.

During the presentation of the vehicles, Núria Campos, Councilwoman for efforts being carried out by the City Council to improve the cleanliness and quality of public spaces in Paterna by renewing the street cleaning fleet. This will make it possible to optimise the service and will enable operators to work more efficiently".

Campos also said, "the objective is to continue offering a quality service, adapted to the town's needs at each moment. The new vehicles represent the City Council's com-



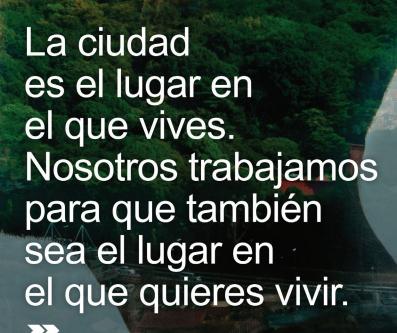


mitment to the future and to the use of new technologies applied to cleaning processes".

This revamping of the fleet of vehicles reaffirms the commitment of FCC and of the various entities for which it provides its services to the optimisation of municipal resources for cleaning purposes and the concern for urban sustainability and the protection of the environment.

### The 25 vehicles comprising the fleet

The fleet that provides cleaning and waste collection services in Paterna comprises nine waste collection trucks, three mechanical sweepers, a street flushing vehicle, high water pressure equipment, two dump trucks, and nine Piaggio Porter vehicles.



En FCC trabajamos día a día gestionando el agua, encargándonos de la limpieza viaria y del mantenimiento de las zonas verdes; así como de los residuos, algunos de los cuales los convertimos en fuente energética. Cada día más ciudadanos cuidan el lugar donde viven y así mejoran la calidad de vida de todos. Y nosotros colaboramos a que se sientan orgullosos de su gran hogar.

Lo estamos haciendo juntos.

www.fcc.es

Servicios Ciudadanos

## FCC Aqualia adapts its Management System to the new provisions of ISO 9001 and 14001 standards

FCC Aqualia's senior management approved the documents relating to the Management system that will enable the company to adapt to the new revised ISO 9001 and ISO 14001 standards that were announced recently. Accordingly, FCC Aqualia will be one of the first of the Group companies to implement these revised standards.

The main changes affecting the standards include the bolstering of the "leadership"



The Company is now one of the first Spanish companies to adapt to the new standards

### **AENOR**

concept" and the incorporation of new terms such as the company's internal and external "context", "stakeholders' expectations", a transversal vision of risks, the inclusion of the "lifecycle" concept and adaptation to climate change and biodiversity.

Taking advantage of the alignment of documentation, an adjustment was also made that is focused on the Company's new reality (regional, by zone, country, and branch office). The purpose of the new functional and territorial structure is to drive the company towards the ongoing improvement of its activities, supported by processes and procedures that are part of its Management System.

Several documents were revised, including the "Management System Policy" (available online) which includes the eleven criteria governing the Company's Management System. The project process was also revised, adding the new "unique projects" concept.

By adapting its management system, FCC Aqualia ratifies its commitment to constant improvement in each of the activities that it conducts thanks to which it has been awarded certificates in the Quality, Energy Management, Carbon Footprint and R+D+I; the certificate for its Information Security systems; the certification of its laboratories; and the verification of its annual CSR reports.

## SmVaK inaugurates a new deposit in Jablunkov (Czech Republic) that will improve the service provided to thirteen thousand users

The new water deposit, built in the outskirts of Jablunkov, near the Polish border, was inaugurated and commissioned in the presence of the representatives of the towns of Jablunkov, the easternmost part of the Czech Republic, Jiří Cienciala, the Government representative for the Moravia and Silesia Region, and SmVak senior management.

The facilities are part of a major project connecting the towns in this region with the main drinking water distribution system, wholesale water from Ostrava and its corresponding wastewater treatment plant (WWTP) as well as from the central sources of drinking water (the Morávka, Šance and Kružberk water deposits).



From left to right: Anatol Pšenička, CEO of SmVaK, Marek Síbrt, SmVaK's Communications Manager; Milan Koníř, Waterworks Manager; and, Jiří Cienciala, the Czech Government's representative in the Moravia-Silesia Region, during the inauguration of the deposit.

Thanks to the execution of this project, about 13,000 people who until now used underwater and ground surface sources of water from the Beskydy Mountains will have access to SmVaKOs supply network. Traditional resources provide insufficient flow of water during draughts and, therefore, it was often necessary to resort to provisional pumping stations or supply via cistern

trucks, as during last summer. Now, thanks to the new system the population will be able to, when necessary, have access to the Morávka water deposit or obtain water supply from Slezská Harta and Kružberk reservoirs, which are almost 100 kilometres away.

## The event was broadcast live in the Czech Republic's public TV station

The event received wide media coverage given what it will contribute to improving the quality of life of the people who live in this region. The inauguration ceremony was broadcast life by the ČT 24 news channel of the Czech public TV station. SmVak's representative had the chance to explain the details of the project in an interview that was broadcast in the local Ceskatelevize channel.





## The BioSol project achieves its first milestone after two years of research

FCC Aqualia and its partners delivered the follow-up report that backs up the pre-financing of 40% of the total project.

The first phase is being developed in the Centre for New Water Technologies (CENTA) in Seville at an anaerobic digestion unit and has a treatment capacity of 13m³/day. The second phase, which has a capacity three times larger, will be carried out at the El Toyo WWTP (Almería).

Co-funded by the European LIFE+ program, the BioSol project's objective is to develop and test an innovative microalgae-based wastewater treatment and reuse system. The biomass generated produces high value biofertilizers and/or biogas. The projects makes it possible to compare FCC Aqualia's raceway technology with new tubular photobioreactors developed by Heliopur. The project is to be implemented in two phases.

#### **Recovery cycle**

The first phase, being developed in Centre for New Water Technologies (CENTA) in Seville will test the recovery of microalgae generated in the production of biogas at an anaerobic digestion unit with a treatment capacity of 13 m³/day. The second one, with a capacity three times larger, will be carried out at the El Toyo (Almeria) WWTP and, in this case, the recovery of microalgae will by means of enzymatic hydrolysis for the production of biofertilizers, developed by the University of Almería.

Simultaneously, in order to confirm the technical viability of this technology in latitu-



From left to right: Carlos Aragón, from CENTA; the chairman of IWA, Helmut Kroiss; Frank Rogalla, Aqualia' s Innovation and Technology manager; and César Narváez, from Coldep.



The objective is to develop and test a new microalgae-based wastewater treatment and reuse system

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des with less sunshine in order to optimise operations in different climates, FCC Aqualia has installed two raceway-type pilot reactors in Grado (Asturias).

The increasing operations in microalgae-based systems, with ongoing projects in Chiclana, Asturias, Seville and Almería, will enable the company to develop a broad and detailed database that will make it possible to market successfully this technological, innovative, and sustainable solution, making wastewater treatment a value-generating enterprise.

#### Award-winner at the IWA LET 2016

The BioSol project poster won the Best Poster Presentation Award at the 13th edition of the IWA LET 2016 conference. A panel of 22 international experts singled out the poster, out of more than 200 posters from around the world, which was produced by the consortium team.

## FCC Aqualia

## wins new sanitation management contract in Llanes and Ribadedeva (Asturias)

Consorcio de Aguas de Asturias (CADA-SA) awarded FCC Aqualia a contract for the operation, maintenance and upkeep of the Public Sanitation Systems of Llanes and Ribadedeva. The new contract represents a portfolio of 3.9 million euros in the first four years and contemplates annual extensions of the contract up to the year 2026.

Since the population centres are very scattered and there are several independent sanitation systems, the contract is a complex one. Wastewater from the central Llanes shore, from Niembro to Cue, is treated at fifteen pumping and spillway facilities and at the Llanes wastewater treatment plant (WWTP). Sanitation at the San Jorge Valley comprises five pumping stations and the San Jorge Valley WWTP. At Ribadedeva,



Detail of the lamella decanters at the Llanes WWTP

four pumping stations bring wastewater to the La Franca WWTP. Twelve small facilities handle the treatment of wastewater from the rural areas of Llanes.

The Llanes WWTP is the most important one. It treats wastewater from population centres along the central shoreline. A chain of several pumping stations brings raw water from the sanitation network to the main pumping station located in Llanes. From there, water goes to the WWTP that has a

flow design of 8,500 m<sup>3</sup>/day, equivalent to a population of 34,000 people.

The San Jorge Valley WWTP in San Antolín de Bedón has a flow design of 3,866 m³/day, equivalent to a population of 11,466 people. The La Franca WWTP treats wastewater from the towns of Colombres, Pimiango, El Peral and La Franca, all belonging to Ribadedeva County and is designed to provide services to a population equivalent to 5,000 inhabitants. The last system, in charge of treating water from the rural areas of Llanes, comprises twelve different types of facilities.

Thanks to this new contract, FCC Aqualia will be treating wastewater equivalent to a population of 60,000, thereby bolstering its positioning in Asturias where it has been providing services to 49 of the 78 counties in the region.





# FCC sponsors breakfast with Francina Armengol, president



From left to right: Jordi Payet, María González Veracruz, Félix Parra, Francina Armengol, Cesar Chiva, Miquel Iceta and Santiago Lafuente.

#### of the Balearic Island regional government

Armengol played the key role at the information breakfast organised with the collaboration of FCC Medio Ambiente y FCC Aqualia. The Group's representative at this event were Jordi Payet, managing director of FCC Medio Ambiente, and Santiago Lafuente, manager in Spain of FCC Aqualia. Several politicians were also present at the breakfast event.

Organized on 7 July in Madrid, the event, enjoyed broad media coverage and a large many people participated. Francina Armengol, president of the Balearic Islands Government, Jordi Payet and Santiago Lafuente, as well as María González Veracruz, member of the Socialist Party (PSOE) and secretary of Science, Online Participation and Politics and congressional representative, and César Chivas, the director of the Executive Forum, in charge of organising the event sat at the presidential table. Current politics were the main subject of the breakfast event that re-



FraFrancina Armengol, president of the Balearic Islands Government during her speech.

ceived wide media coverage. In her speech, González Veracruz wagered on financing of the autonomous governments that was more just and on Armengol's management. Armengol, on her part, made several headlines in national as well as local politics.

The FCC Group has a large presence in the islands both in water management as well as in environmental services, and operates in cities such as Palma de Mallorca, Marratxí, Llucmajor, Ciutadella, Maó and Sant Antoni de Portmany, and its commitment dates back to more than 30 years.

Armengol was accompanied by: Miquel Iceta, Secretary General of the Catalan Socialist Party (PSC); Manuel de la Rocha, secretary of the economy of the Socialist Party (PSOE); the senator and former president of the Ba-

learic Islands Francesc Antich; the mayor of San Josep, Pep Marí Ribas; the mayor of San Antoni, José Tur; and Montserrat García, councilwoman for the Environment of the Eivissa City Council.





#### FCC completes the Cañas-Liberia section of the Inter-American Highway, Costa Rica

The Cañas-Liberia section of the Inter-American highway, built by FCC Construcción in Costa Rica, is now in operation. This milestone completes the Mesoamerican Corridor, the link between the protected areas of Central America, and equips Costa Rica with a route that will improve transport and trade in the region.

The Inter-American Development Bank provided almost 127 million euros (140 million dollars) of project financing. The Cañas - Liberia route forms part of the Inter-American North highway as it passes through Costa Rica, measuring 50.61 kilometres long. FCC used more than 50,000 tonnes of cement and nearly 500,000 m<sup>3</sup> of aggregates to build it.

The President of Costa Rica, Luis Guillermo Solís Rivera, attended the opening ceremony along with the First Lady of the Republic, Mercedes Peñas. They were joined by the Minister of Public Works and Transport, Carlos Villalta, mayors Luis Fernando

Mendoza, William Guido and Julio Viales, the General Manager of the Inter-American Development Bank, Gina Montiel, the Director of FCC Construcción in Latin America, José María Torroja, and the Manager of FCC Construcción in Costa Rica, Mauricio González.

For further information:



The section forms part of the Inter-American North highway as it passes through Costa Rica, with a length of just over 50 kilometres





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Worth 127 million euros. the Inter-American Development Bank financed the project

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## FCC Industrial participated in building the first liquefied natural gas (LNG) plant in Finland

FCC Industrial has participated in the construction of Finland's first liquefied natural gas terminal. The subsidiary company of the Citizen Services Group built the storage tank for the plant in Pori, on the west coast of the Nordic country.

FCC Industrial participated in building the plant, which was officially opened on 12 September, after it won the contract to design, construct and start-up the 30,000-cubic meter storage tank, measuring 35 metres in height and 42 in diameter. The contract also entailed carrying out all the other auxiliary services required to operate it. The contract was worth a total of 30 million euros.

The LNG terminal includes loading docks, two process units (compressor and vaporisers), three loading docks for trucks, a heat production unit and other ancillary facilities and constructions. The terminal is connected to a 12-km gas pipeline that runs to the liquefied natural gas network. The new terminal and the LNG tank were built in the envisaged 24-month timeframe.

With this new reference point, the division of FCC strengthens its international presence in terms of industrial projects and exports



The new LNG terminal and tank were built within the 24 months contemplated in the contract



the 30-plus years of experience it has in constructing and starting up hydrocarbon (oil and gas) storage and transportation facilities in Spain for the leading energy companies, such as Enagás, Gas Natural Fenosa, CLH and Repsol, etc.

FCC Industrial has constructed seven LNG storage tanks with a capacity of 150,000 cubic metres. Of these, four were built in the regasification plant in the Port of Barcelona, two in the facilities of the Port of Musel in Gijón (Asturias) and one with seismic protection in Cartagena. These form part of the interesting design, construction and start-up portfolio of industrial works.



The storage tank has a capacity of 30,000 cubic metres, equivalent to the size of an eight-story apartment block

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## FCC Industrial

## order intake topped €500 million in the first half

FCC Industrial landed over €500 million in new contracts in the first half of 2016.

Recently awarded contracts, including, among others, the Samalayuca-Sasabe gas pipeline in Mexico, upgrading of fuelling facilities at Dublin airport (Ireland), and the electromechanical installations on Riyadh Metro lines 5 and 6 (Saudi Arabia), boosted order intake sharply in the first half of the year to 28.7% more than the initial target. This figure corroborates good performance in industrial construction projects worldwide.

Order intake increased in Spain, including upgrading installations in landmark buildings such as Madrid's Royal Theatre and the Pelli Tower in Seville, together with the contract to maintain public lighting for the municipality of Lepe (Huelva).

It is worth pointing out that the Group's synergies are leveraged effectively to secure new contracts. As a result, the company makes efficient use of human and material resources to boost profit margins.

With more than 30 years' experience in industrial projects, FCC Industrial has a diversified portfolio of activities. Its main lines of action include industrial construction, fuel storage and transportation, electricity distribution networks, electromechanical installations, industrial plant operation and maintenance, infrastructure maintenance, pre-cast concrete structures, and smart transport systems.











## FCC awarded 300 million euro electromechanical installation contract for Riyadh Metro

Thanks to this contract, the FCC's construction division increases its involvement in its largest international project, the Riyadh Metro.

The value of the contract is around 300 million Euros and is due to be completed within 36 months.

The scope of the project includes all electro-mechanical installations, i.e. lighting, ventilation, fire-fighting and air conditioning systems on the two metropolitan railway lines. It is also a clear example of leveraging the different synergies of the companies that form part of the Citizen Services Group.



This contract increases the involvement of FCC's construction division in its largest international project, the Riyadh Metro

#### FCC and local authorities go on the first drive through the Coatzacoalcos underwater tunnel (Mexico)



On 30 August, Tomás Ruiz, secretary of Infrastructure and Public Works (SIOP) of the Veracruz state government, and Joaquín Caballero, mayor of Coatzacoalcos, along with representatives from different public and private bodies, including representatives from FCC Construcción in Mexico, went on the first drive through the underwater tunnel that connects the cities of Coatzacoalcos and Villa Allende.

The infrastructure is 95% complete and will be finished in the forthcoming months. The tunnel measures 25 metres in width and 750 metres in length, of which 696 metres are underwater. The starting point is 12 metres underwater, dropping to around 15 metres at the midpoint.

The work project will allow users to cross the city in only three minutes, saving them considerable time. The same journey, on a road used by over 22,000 vehicles, currently takes 45 minutes.

At the event, the authorities emphasised the technical complexity of the work and its progress. The access point to Colón Street was also opened at the event, which allows areas of Coatzacoalcos to be reconnected: the Coatzacoalcos pier, Malpica Avenue and General Anaya. The opening of this street will benefit residents of the Esfuerzo de los Hermanos del Trabajo neighbourhood, as well as visitors to the 20th of November Market and the Port Authority.

## The Mersey team in the United Kingdom reopens the road connecting the country's Central and Southern Expressways

The Mersey Gateway Project team, the consortium in the U.K. of which FCC is a member, has announced that a connection to the Southern Expressway route in Runcorn has re-opened to traffic. Thanks to the re-opening of the road, southbound traffic using the Central Expressway no longer has to divert around local roads.

Hugh O'Connor, General Manager of Merseylink, said: "the reopening is one of the most important parts of the project in terms of the reconfiguration of the road."

Upgrading and re-modelling the road infrastructure is a key part of the Mersey Gateway Project. The objective is to create a 7 km link road to connect the new bridge to the national motorway network.

When the project is completed, there will be a new free-flowing north to south route

that links the new bridge and the Central Expressway with Weston Link and on to the M56 Junction 12, benefitting those who live and work in the area.

#### Caring for biodiversity in Halton

The Merseylink team committed to protecting the environment has planted a wildflower meadow at Clifton roundabout in Runcorn at Junction 12 of the M56. This action is part of the Mersey Gateway project's long-term landscaping works carried out by FCC in the UK.

Several native wildflower species have been planted including: red poppies, white camomiles, blue cornflowers and yellow corn marigolds. The aim is to create a stable ecological bed by linking two important local habitats: Floodbrook Clough; an ancient semi-natural woodland designated as a Site of Special Scientific Interest; and Clifton Lagoons, another site with a great botanical value.

The seeds, sourced from local environmental charity, Landlife, which is based at the National Wildflower Centre in Knowsley, were carefully mixed to attract pollinators such as butterflies and bees.

The wildflower meadows not only provide a unique visual display, but also create an essential haven for wildlife.

According to Hayley Percival, Merseylink's Environmental Coordinator of the scheme, "supporting the natural environment of each site and boosting biodiversity are two of Merseylink's key commitments".





### FCC Construcción

## participates in the Global Engineering and Public Works Forum

FCC Construcción took part in the Global Engineering and Public Works Forum, held at the International University Menéndez Pelayo, in Santander, on 6 and 7 July and organised by the Association of Civil Engineers and Fundación Caminos.

Miguel Jurado, chairman of FCC Construcción, participated in one of the forum's theme round tables. He talked about the global leadership of Spanish construction and engineering companies and described the Company's experience in building Lines 4, 5 and 6 of Riyadh Metro (Saudi Arabia).

He highlighted FCC's experience, contributed to the entire project as the leader of the consortium and the positive impact on the Saudi population, by reducing traffic congestion and strengthening and boosting the economy of the Kingdom of Saudi Arabia and improving the quality of life of its citizens. At the same time, he mentioned the need to recover public works in Spain as an instrument for promoting the country's growth.

Ana Pastor, Minister of Public Works, and Isabel García Tejerina, the Minister of Agriculture, Food, and the Environment, also participated in the event jointly with the chairmen and senior management of the country's leading construction and engineering companies.

Over the course of the event, they discussed important issues such as investment in infrastructures as essential for ensuring growth and employment; the Spanish brand and its global leadership; construction and engineering companies in the world; and the new public contracting model where quality is more important than price.





Other conferences were organised on topics such as stability as the premise for recovery, economic efficiency and social cohesion, the role of infrastructures, the Spanish construction companies as international success models, water and the environment as the centre of attention worldwide.

Miguel Jurado highlighted FCC's experience, contributed to the entire project as the leader of the consortium and the positive impact on the Saudi population







## FCC ptakes part in events to celebrate expansion of Panama Canal

FCC took part in the events organized by the Republic of Panama to mark the inauguration of the new navigation section of the Panama Canal. The Citizen Services Group was responsible for the PAC 4 project to expand the Panama Canal.



The President of the Republic, Juan Carlos Varela, accompanied by the Minister of Canal Affairs, Roberto Roy, the CEO of the Panama Canal, Jorge Luis Quijano, representatives from more than 60 delegations from all over the world and thousands of Panamanians witnessed the passage of the first New Panamax ship, "Cosco Shipping Panamá", of Chinese origin, with a load of 9,400 containers.

Representing FCC at the inauguration ceremony were the director of FCC Construcción in Central America, Manuel Antonio Olivares, the manager of Civil Engineering of FCC Construcción in Panama José Manuel Garrido, and the manager of the Pacific Access Channel (PAC-4) project, Jesús Martínez, who attended on behalf of the consortium in charge of undertaking the project, led by FCC, along with the Mexican company ICA and the Cost Rican company MECO.

The PAC-4 project, which formed part of the work on the Panama Canal Expansion, consisted of the excavation of a new channel in the Panama Canal with the aim of linking the new locks with the so-called Corte Culebra, the narrowest stretch of the waterway, with a length of 12.6 km, close to the Canal's Pacific access.

According to Manuel Antonio Olivares, director of FCC Construcción in Central America, the construction of the 3.7 kilometre channel approaching the Pacific locks, with a width of 200 metres, involved "a technical challenge of the highest magnitude".

The PAC-4 also included the construction of a 2.4 km-long dam from loose materials, the excavation, transportation and dumping of some 27 million cubic metres of material, mainly rocky, as well as the completion of the access routes and bypass channels for water drainage, the creation of reservoirs and clearing approximately 80 hectares of waste material area.

## The largest infrastructure project in this century

FCC joined the celebration of the largest infrastructure project of this century and is proud to have contributed, with its skill and experience, in achieving this milestone of global importance.

This project started on 22 January 2010 and was delivered to the Panama Canal Authority on 20 December 2015.

## FCC celebrates its 20th anniversary in Panama

Over these two decades, the Citizen Services Group has contributed to developing Panamanian wellbeing with iconic projects such as Line 1 of the metro in the capital city and the expansion of the Panama Canal.

FCC celebrates 20 years of working in Panama, during which it has contribution to the economic development of this Central American country through a range of projects mainly linked to infrastructure development. The most significant of these projects include Metro Lines 1 and 2, the Luis "Chicho" Fábrega hospital centre and the expansion of the Panama Canal.

Over the 20 years of FCC activity in Panama, the Group has contributed to economic development and to improving the quality of life of its citizens, as seen, for example, in the 20,000 people who have worked for the Citizen Services Group on its many projects.

At the anniversary celebrations, an event organised for everyone linked to the company, the director of FCC Construcción in Central America, Manuel Antonio Olivares, called these 20 years a milestone for the Group that "prove we are a Panamanian as well as a multinational company". Speaking before the organisations and individuals at the event, Olivares stressed that it has been a great "privilege for FCC to be part of the growth and progress of this country", confidently added that it will "continue to do so for many years to come".

Olivares highlighted the different activities conducted by the group over these two decades. Among these, the FCC's chief executive in Central America mentioned the construction of housing, health care facilities, transport, hydraulic mobility, ports, and the rehabilitation and maintenance of several key structures.



More information at:



View Link



Over the 20 years of FCC activity in Panama, the Group has contributed to economic development and to improving the quality of life of its citizens

New special Central American Bulletin: "FCC's 20 years in Panama"

\*\*Construcción\*\*

\*\*Construcción\*\*

\*\*FCC en Panamá cumple 20 años y queremos celebrarlo compartiendo con cada persona nuestra pasión por lo que hacemos con un gran equipo al servicio de la comunidad panamento.

\*\*FCC Construcción en Panamá / Superio de 2016

\*\*Penamá / Costa Rica \*\*\*

\*\*View Link\*\*

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# facilities: much more than sports

Among the non-residential building projects undertaken by FCC Construcción, sports facilities deserve special mention because of their uniqueness and the high degree of specialisation required. In this area, the company has built more than 15 large-scale venues around the world that have hosted major sporting events including football, tennis, motorcycling and athletics.

Large-scale, avant-garde, sustainable and functional sports infrastructures are great feats of architecture and engineering. FCC Construcción has devoted its technical expertise to overcoming significant challenges across a wide range of sporting venues. It has guaranteed success, becoming a global reference in the sector through the application of innovative solutions.





RCDE Stadium of the RCD Espanyol (Barcelona) soccer team.



Allianz Arena Stadium (Munich).

#### Soccer showcases

FCC has been present in some of the most important football championships, building the spectacularly designed Allianz Arena stadium in Munich for the 2006 World Cup finals in Germany.

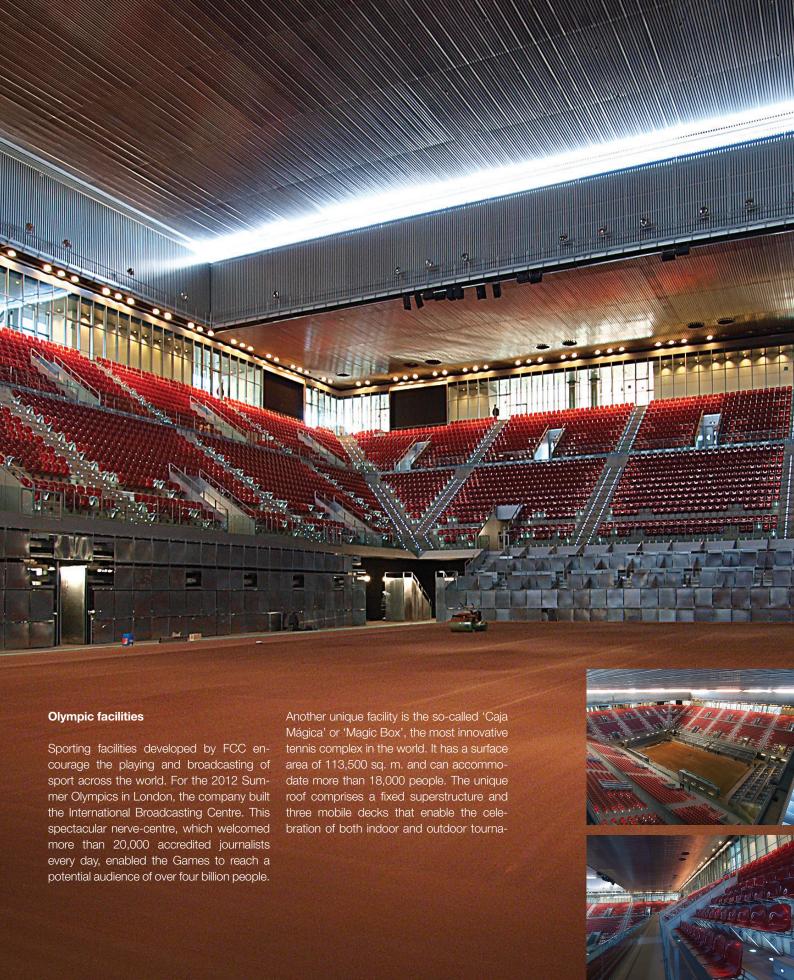
The company also played a key role in Euro 2008 held in Austria & Switzerland, where FCC's involvement included building or refurbishment projects of multi-purpose arenas in Salzburg, Innsbruck and Klagenfurt. Four years later, in Poland 2012, the company built three venues that have since become landmarks in the country: the National Sta-

dium in Warsaw, Poland's largest; the PGA Arena in Gdansk; and the Poznan Municipal Stadium, where all the seating is under cover and the stands have a unique 'U' design.

In Spain, FCC built the Real Madrid City, with a total surface area covering 1,200,000 square metres. It also refurbished the stands of the Santiago Bernabeu Stadium, built the new Condomina Stadium in Murcia, and RCD Espanyol's stadium, which won the World's Best Sports Facility of the Year in the 2010 Business Stadium Awards.



Santiago Bernabéu Stadium (Madrid).





The new Atlético de Madrid stadium (Madrid).

#### A new Peineta

FCC is currently working on the construction of La Peineta Stadium, which will be home to the Atletico Madrid team from the 2017/2018 season onwards. It will have a capacity for over 67,000 fans, in stands, boxes and VIP areas. The total surface area

will cover 145,721 sq. m. and it will have a new, modern steel structure weighing about 6,336 tons. This will be tensioned with radial cables (measuring a total length of 16,590 metres) and joined by a membrane fabric

Computer graphics of the new Atlético de Madrid Stadium (Madrid).





The Sports Palace of the Madrid Community (Madrid).

covering an area of 83,053 square metres. This new stadium will have all the necessary features required to host the biggest football games.

#### Full speed ahead

FCC's portfolio of sports facilities includes the Jerez Racing Circuit, renovated to adapt it to new international standards required by the Automobile and Motorcycling Federations.

Other successfully completed projects

include the renovation following a fire of the Madrid Regional Palace of Sports, the Trujillo sports complex in Peru, and the complementary infrastructure for the 2013 Bolivarian Games – an international sporting event between the Bolivarian Nations (Bolivia, Colombia, Ecuador, Panama, Peru and Venezuela) held every four years.

FCC Construcción will continue to work to spearhead of future infrastructure projects to take sport and public venues to unprecedented heights.

The Jerez Circuit (Jerez de Frontera).



#### Interview

## Hilario Jesús Gómez

Head of FCC Construcción Central Spain's Technical Building Services and Civil Works Department



### What differentiating value does FCC Construcción bring to its construction of sports facilities?

Unquestionably, its people. The expertise built up over the last few decades in the delivery of major projects in all sectors gives us great potential with which to undertake such projects both now and in the future. Within that human capital, special mention should be made of the team, led by Fernando Bernaldo de Quiros, that implements the work and draws on the vast know-how accumulated through previous large-scale projects, such as Telefonica's 'City of Communications'. Another highlight is the support given by our Technical Services division, with their extensive experience in unique buildings, sports stadiums and iconic buildings across the Madrid skyline, such as the Cepsa Tower and Terminal 4 at the Adolfo Suarez Madrid-Barajas.

#### What is the greatest achievement to date?

It is very difficult to single out one main achievement in a company that has spent over 100 years participating in the great landmarks of Spanish engineering, both within our national borders and abroad. On top of those mentioned above, we could add a number of singular infrastructures and buildings or the numerous challenges successfully built for the Barcelona Olympics and the Universal Exhibitions in Seville and Zaragoza.

### What has been the company's contribution in terms of innovation and sustainability?

Sustainability forms part of both FCC Construcción and the Group's business policy.

The use of innovation is enhanced with each project and each operation. Similarly, R&D+I projects are present in all the work we carry out. For example, in the La Peineta stadium, seven research, development and innovation projects are being implemented, and it is quite likely that new ones will appear before the project is concluded, which demonstrates the company's concern with maintaining its technological leadership. Such projects include: a field study to optimise the design of the Stadium's deep foundations; a comparative study on the results of pile integrity testing; the development of wall-to-land anchors by means of selective repetitive injection into soils with self-consolidating materials; the design, feed dosage, manufacture and application of self-compacting concrete for the stands: and finally, the roofing assembly formed by the outer compression ring, the inner tensioning ring, the radial cables and the membrane that forms the tensile structure surface.

Talking about La Peineta Stadium, what jobs are currently underway? What are the challenges to be met when expanding a ready-built stadium?

Any building work that takes place on an existing structure poses some serious challenges.

You have to rely on older parts to support the new bits. This requires a detailed study of its features and assumes that old and new must now be coordinated to avoid significant technical and design differences.

We are at a very significant moment in the construction process: starting the assembly of the roofing. In July, the first section of metal structure that forms the compression ring was hoisted. This will be the main milestone in the project over the coming months once the concrete structure that forms the main body of the stadium and the roof support has been completed. After the compression ring is in place, the tensioning ring and the radial cables will be installed, followed finally by the textile membrane that comprises the actual roof.





## People

## Joan Lara, from FCC Aqualia,



# creates his challenge for children with cancer

The head of the El Vendrell Sports Centres, Joan Lara, travels the 1,582 kilometres that separate Barcelona from Rome, performing 7 Ironman in 7 consecutive days to help children with cancer. If last year he travelled 85 kilometres per day during 15 days to bring the dreams of children with cancer to the last corner of the world, from Barcelona to Finisterre, this year, Joan Lara beat his own record.

Joan is the head of the Sports Centres in El Vendrell (Tarragona) and a triathlete. On this occasion, he wanted to symbolise an army fighting a war with cancer and, under the name of EP7C performed 7 Ironman on 7 consecutive days to go from Barcelona to Rome. He swam 26.6 km, cycled 1,260 km, and ran 296 km.

#### The dream of a cancer-free world

Running an average of 13 hours per day, Joan Lara had to put up with strong gusts of wind in the Camargue the slopes of the Maritime Alps, and intense heat throughout the entire week.

Once again, the solidarity challenge of this initiative was to raise funds for AFANOC, an association for children with cancer, and Casa de los Xuklis, a home for the families of these children. The challenge was very difficult and took him to the limit, but, as he said, "there is no tougher army than the one that never gives up".

Donations can be made at







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### .A.S.A. Servicii Ecologice and Goldis University 1C1M Arad - Partnership for the future of Arad basketball

With the support of ASA Servicii Ecologice (presented under the brand FCC Environment) the uncertain future of the most famous sport's team in Arad - the Goldis University ICIM Arad - has been secured. The women's basketball club from Arad is one of the most decorated in the country, having won 9 national championship titles, as well as two Romanian cups and three trophies in the League of Central Europe.

"This partnership is the first step on the way to a better future for basketball in Arad, the first ray of sunlight after a long period of uncertainty", said Dan Moraru, coach of the women's basketball club.

The contract was signed at the Town Hall by Emanuel Maris (.A.S.A. Servicii Ecologice) and Marcel Urban (representative of the club) in the presence of the deputy mayor Călin Bibart, confirming the support of the local authorities to the sport in Arad, in particular to women's basketball.

## The pupils' competition in collection of waste paper breaks records!

Since 1997 the company FCC Environment CEE (.A.S.A.) has been systematically engaged in cooperation with schools in environmental education. The most important objective of FCC programs is to encourage ecological behaviour of future generations in the spirit of the company motto "Service for the Future". The program also includes a school competition in the waste paper collection.

The competition started in the school year 2001/2002 in the Czech Republic. "Back then, 10,757 pupils from 67 schools in Prague and Brno participated in this competition, who collected 198,954 kg of paper," recalls Martina Mazurová who is in charge of the competition in the Czech Republic. "During the 15 years of the competition, the number of participants and the amount of the collected paper multiplied. We can say that almost every year we break records. "In the calendar year 2015/2016 pupils collected a record amount of paper again 4,027,682 kg. 105,675 pupils from 620 schools participated in this competition.

Such competition also runs in the Slovak Republic and Serbia. The competition has been held in the Slovak Republic since the school year 2008/2009 and in Serbia since 2013/2014. Only this year the pupils have already collected over 300,000 kg in these countries.

During the duration of the competition, the pupils in the three above mentioned countries belonging to the FCC Environment CEE Group (.A.S.A.) have collected in total over 37 million kilograms of paper. This would have saved about 75,000 tons of wood as a primary raw material.





## **FCC** supports charities in Suffolk County (United Kingdom) by recycling second-hand items

FCC Environment, the Group's subsidiary in the United Kingdom, joined the "Advantage Suffolk" campaign launched by Suffolk County Council, in Eastern England, and the Benjamin Foundation. The goal is to encourage people to donate the items that they don't need so that other people can use them.

Since 2009, FCC Environment manages household waste recycling centres (HWRC) where citizens are able to leave the items that they don't need and which are subsequently transported by FCC to the re-use shop in Foxhall, also managed by the Company.

Thanks to this innovative initiative, it was possible to reduce the volume of waste in the county by 400 tons, an amount expected to increase in the coming years to 550 or 600 tons.

Steve Bell, reuse manager at FCC Environment said: "Our reuse shops have proven incredibly popular across the country. We are providing residents with bargains, preventing items which are reusable from being discarded, helping to meet government recycling targets and raising funds for local charities. Everyone really does win."



Matthew Hicks, Suffolk County Council's cabinet member for environment and public protection, said: "It's great that preloved items are now finding their way through our recycling centres to the Reuse Shop. Thanks to the residents of Suffolk, we are reducing waste and raising money for our charity partner, the Benjamin Foundation."

Reuse shops are becoming very popular throughout the United Kingdom, raising Money for charity and, most importantly, preventing unnecessary waste from being created.

The range of materials being sold includes electrical items from vacuum cleaners to blenders, furniture from chairs to dressers, children's toys along with prams and high-chairs, sports equipment including golf clubs and bags, weights and even skates, CDs and DVDs, books, bicycles and DIY and garden tools...



Thanks to this innovative initiative, it was possible to reduce the volume of waste generated in the county by 400 tons a year

"



## Wychavon District Council (United Kingdom) and FCC Environment pay tribute to five employees for their long service

Emma Stokes, Councillor for the Environment and Street Scene at Wychavon District Council (west of London) and FCC Environment Chief Executive, Paul Taylor, joined FCC Environment Regional Manager Fernando Capelastegui, to mark the long service of Donald Roberts, Jimmy Smith, Steve Moore, Dave Caines and Andy Ryan for their long service as members of the town's cleaning team.

Each of the five have clocked up a at least 25 years with FCC Environment which has been providing collections services to the 54,600 households in Wychavon since 1991. Four of the five had been working directly for the council for many years before FCC was awarded the contract.

During the ceremony, Paul Taylor had a few words for them ""well done to Donald, Steve, Dave, Andy and Jimmy. These 5 key team members have worked a total of 169 years helping keep Wychavon clean and tidy with Donald achieving a milestone of 40 years. I would like to personally thank them

for both their service and their continued dedication to their vital jobs."

Emma Stokes said "Wychavon is a close community and our collections and street cleaning teams are well known personalities so to be able to recognise the long service of five key members of the team today gives me great pleasure."

#### Five stories adding up 169 years

FCC Environment Regional Director Fernando Capelastegui went over the professional career of each of the employees, congratulated them and thanked them for their years of service.

Donald has been cleaning the streets in the town for 40 years. When FCC Environment took over the contract in 1991, Donald was on the route which collected refuse sacks from properties that the collection lorries couldn't get to (narrow access). Since wheeled bins were launched in 2008, Donald now collects from properties exempt from wheeled bins in the south of the district, as well as cleaning several streets on Saturdays.

Jimmy, in pre FCC days, carried out refuse collections during the week and street cleaning duties at weekends. Since FCC Environment was awarded the contract, Jimmy has continued to clean the streets of Wychavon.

Steve has carried out refuse collection duties in his time but more recently he has been assigned to street cleaning duties in Droitwich. Residents can see Steve walking with his street cleaning barrow daily through the town centre and surrounding residential areas.

Dave has worked as a refuse collector throughout all his years of service and still carries out street cleaning duties at the weekends in Droitwich.

Andy has been driving Refuse Collection vehicles since he started with the FCC in 1991. Andy states that originally he went on every round as a 'trouble shooting' driver and has remained a highly valued member of the team.

## Lincoln youngsters win zero waste lunch box challenge

Lincolnshire County
primary schools have
taken part in a challenge
to reduce the amount of
waste from their lunch box
at the County Council's
Energy from Waste facility
(EfW).

FCC Environment manages the EfW facility at Lincolnshire which opened in 2013 and produces energy from waste, thereby sharply reducing the amount of waste that Lincolnshire residents send to the landfill. The facility can treat 170,000 tons of urban and business waste each year and, as a consequence, generates 11.24 megawatt per hour of renewable electric energy which it sells to local grids. This amount is equivalent to the electricity supply of 26,500 households.

Youngsters from Reepham C E Primary School, near Lincoln, are the best in the county at recycling.

Over the past year, primary schools from across the county have been taking part in a challenge to reduce the amount of waste from their lunch box at Lincolnshire County Council's Energy from Waste facility.

lan Randall, headteacher at Reepham C of E school, said: "It's so important that our young people get a well-rounded educa-





"Thirty three students took part from Reepham school and managed to only have 100g of waste when they had finished eating! That's less than an iphone! Amazing! "

Sally Hood, visitor manager for FCC Environment, who runs the Energy from Waste facility, comments: "It was an absolute delight to have the children and young people from Reepham visit us at the facility. I hope that it provokes thoughts of waste management and encourages them to change their lunch box habits – which evidently it has! Excellent news!"

tion. We need to teach them about the world we live in, how it works and how we can help protect it for future generations.

"The visit to the EfW facility was brilliant. It allowed us to start conversations about the importance of recycling and how we can all play a role in taking care of the environment."

Reg Shore, executive member for waste services at Lincolnshire County Council, said: "This challenge is a great way for youngsters to learn about waste and recycling.

"Making simple swaps, such as cutting up cheese, fruit and vegetables into sticks rather than buying individually packaged ones and putting sandwiches in a tub instead of using cling film, zip-lock bags or foil and bringing drinks in reusable bottles, can make a huge difference in the amount of waste which is put in the bin.

## More than 90% reduction

In 2011, the Lincolnshire County Council made the commitment to reduce the amount of waste that is sent to the landfill sites and, since the Energy from Waste Facility started operations, this objective has been reached, reducing waste by somewhat more than 90%.

## Vigo's street cleaners committed to the city

Vigo can boast of being one of the cleanest cities in Spain. For the fifth consecutive year, this city in Galicia won the "Platinum Broom", an award given by Asociación Técnica para la Gestión de Residuos, Aseo Urbano y Medioambiente (ATEGRUS), to reward the efforts of towns and cities in environmental practices and street cleaning.

This commitment of the city with cleanliness is evident in the video produced by several of the FCC employees involved in the street cleaning service for the local TV where they demonstrate, based on their own experience, their enthusiasm and desire to improve the image of the city which has already been awarded five "Platinum Brooms".

## FCC welcomes a group of Saudi students, members of the summer program promoted by ADA

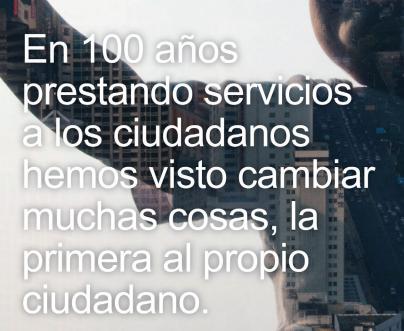
The FAST consortium, led by FCC, hosted a summer training program promoted by Arriyadh Development Authority (ADA), focused on renewing national talent in engineering for the purpose of having trained personnel who can be part of the project.

During the week of 10 July, a group of 10 Saudi students were welcomed at FCC's headquarters in Las Tablas. They toured several projects, including La Peineta Stadium, the Alcántara-Garrovillas section of the high speed train (AVE), the Arganda Machinery Park, the El Alto factory, the Palma del Río thermosolar project, and ended their visit at the Málaga Metro.



The summer program organised in cooperation with universities in Saudi Arabia, is designed for Civil Engineering, Electrical Engineering, Mechanical Engineering and Architecture graduates.

FCC, committed to knowledge transfer and the promotion of talent, demonstrated first hand its long experience in engineering and its ability to face new challenges, from the technological standpoint and a global approach.



En FCC diseñamos y construimos infraestructuras, recogemos, reciclamos y valorizamos residuos urbanos e industriales, limpiamos calles, cuidamos parques y jardines, mantenemos el mobiliario urbano y suministramos agua en 5.000 municipios de todo el mundo desde hace más de 100 años. Al principio éramos unos pocos preocupados porque millones de personas disfrutasen de un lugar mejor donde vivir. Hoy son esos millones de personas los primeros que se preocupan por crear un lugar mejor donde vivir.

Lo estamos haciendo juntos.

## Social Responsibility

## FCC, committed

# to training and hiring people with disabilities

FCC continues to be firmly committed
to being as company that is
increasingly more inclusive,
diverse and socially responsible in
each of its management areas. One of
the main actions being carried out in
this respect is the training and hiring
of people with disabilities where FCC
Equal is playing an essential role.





Since last year, FCC Equal, attached to the environmental services area, has been involved in the comprehensive management and execution of Special Employment Centres (SEC) and to providing auxiliary services to people with disabilities. Besides the in-house work of the Group, FCC supports and works with specialised entities, organizations and foundations whose purpose is the social and job integration of people with disabilities and to improving their safety and health conditions.

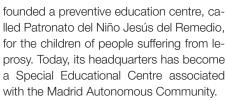
Fundación Carmen Pardo-Valcarce is one of the institutions with which the FCC Group collaborates. It is an institution with more than 60 years of experience in the social-job integration of people with intellectual disabilities. Thanks to the agreement in force between FCC Equal and the Foundation, several students from this organization are trained at FCC offices in jobs relating to the Group's business activities: waste collection, cleaning and maintenance of gardens, etc. After receiving training, many of these people are hired as FCC employees in its different sections.

Accordingly, the Citizen Services Group has a specialised staff of nearly 1,000 people with some sort of disability (more than 2% of people employed directly by the company) who make up various professional categories in proportions similar to the total workforce.

#### About Fundación Carmen Pardo-Valcarce

The Foundation began to function in 1948 when its founder, Carmen Pardo-Valcarce,











The "Pardo-Valcarce" Occupational Centre started operations in 1991 with the aim of acting as the liaison between people with intellectual disabilities and the job market. This space, very close to the FCC headquarters in Las Tablas, also associated with the Madrid Autonomous Community since 2002, offers training adapted to the interests and needs of each of the students and users, enabling them to acquire the necessary skills for working in a regular company. In order to accomplish its objectives, the Foundation's workshops count on the support of an Employment Office and several Special Job Centres to facilitate access to the job market.



The Foundation also has training laboratories in different fields, such as: gardening, flower arrangements, or maintenance of city orchards; a printing shop where students receive training in typesetting, printing, or binding; post offices where they manage postal mail and handle and orga-



nize 7 million stamps on an annual basis; car washing and basic mechanical maintenance; fashion accessories; bakeries, and, lastly, a furniture factory with carpentry and painting activities.

Those who are helped by the Foundation and their families agree that the institution and the companies that collaborate with it, such as FCC, are doing a great job and express their appreciation of the Company's monitors and tutors who help them every day to ensure their optimal social and job development for their future.



The "Pardo-Valcarce"
Occupational Centre started operations with the aim of acting as the liaison between people with intellectual disabilities and the job market

























## Almudena Martorell

### Director of Fundación Carmen Pardo-Valcarce

## Why is collaboration with external companies, such as FCC, important for the Foundation?

We work so that people with disabilities participate in society and employment is undeniably one of the ways to achieve this. Work makes us feel part of the community; it motivates and challenges us and is a place where we can make friends. It is also essential for an independent life, leisure sports. People with intellectual disabilities want and can work. It tells a lot about FCC that they believe in this and that it opens its doors.

#### How do both parties benefit from the agreement?

We firmly believe that companies also win when they give people with an intellectual disability an opportunity. A diverse workforce is rich and versatile and mobilises more competencies than in workforces that are not as diverse. They are more open to creativity and innovation. And, most importantly, companies are increasingly more human and committed to society and this also a differentiating trait.

## What is the role of companies in the social and job integration of people with an intellectual disability?

As explained above, they play a key role. Inclusion in the workforce is logically in their hands and as we have seen, everything hinges on the participation in the job market. Companies as well as society must advan-

ce as a whole towards changing a charitable model into one where we truly value the wealth that workers with an intellectual disability are able to contribute.

#### What type of activities can people with an intellectual disability perform best?

Sometimes I dare to compare the incorporation of women in the job market with that of people with disabilities. Until quite recently, it was considered that we could not be productive and we are not even allowed to vote. But, when an entire society looks at you that way, it is very difficult to change that reality. I believe that people with an intellectual disability are in a similar situation. But if we believe that they can, they can do anything that they set their minds to. Thanks to initiatives such as FCC's, we are coming closer to fulfilling that dream.





## FCC takes part in the seventh edition of the "Greencities" Forum of Urban Intelligence and Sustainability

FCC participated in the seventh edition of the Greencities Forum of Urban Intelligence and Sustainability which was organised on 5 and 6 October in Malaga. It is one of the main national meetings on sustainable urban management based on taking advantage of new technologies. Other well-known institutions, authorities, and professionals in the sector participated in the event.

FCC, which has more than 115 years experience in providing urban services, is committed to technological innovation with the aim of improving the lives of people and of making cities smart and more sustainable and socially responsible, respecting their natural habitat and contributing to preserving the environment.

The Citizen Services Group had a stand at the congress where it provided information on its activities in the environmental and urban services sector. The Company also participated in the panel discussion on "The Environment and sustainable urban development" with Ignacio Arespacochaga, head of FCC Medio Ambiente's Information Systems and Technology, giving a speech on behalf and representing FCC.

As an expert on smart cities and a specialist in the application of new Information and Communication Technologies (ICTs) to smart services, Ignacio Arespacochaga des-



cribed the work carried out by FCC in this area. One of the most relevant aspects is the development of VISION, the global management platform of FCC Group's urban services.

The presence of FCC at this event reaffirms its involvement and responsibility in a sector with which it has been involved since its inception and demonstrates the great importance attached by the Environment Division to the sustainable development of smart cities.

#### **About FCC Medio Ambiente**

FCC Medio Ambiente is the FCC Group division that provides environmental services to 53 million people in 5,000 municipalities in thirteen countries, from comprehensive management of urban and industrial waste to all types of municipal services (waste collection, street cleaning, green spaces...) to the recovery of contaminated soil.

It processes nearly 20 million tons of waste in more than 200 waste recycling and treatment facilities, applying all technological



As an expert on smart cities and specialist in the application of new Information and Communication Technologies (ICTs) to smart services, Ignacio Arespacochaga described the work carried out by FCC in this area.

solutions, from the mechanical and biological treatment to the most advanced and ecological energy from waste recovery.

At FCC Medio Ambiente, waste is treated as a resource, reused and recycled as much as possible and recovering energy from the rest.











VISION, the global management platform for FCC Group's urban services.







## FCC Medio Ambiente, present in the course on smart cities and waste management in El Escorial

Raúl Pérez, director of FCC Medio Ambiente's Madrid branch office described the main current and future challenges in urban waste management and treatment in smart cities at one of the activities conducted in the "Smart Cities 3.0 – Citizen's Connection" which was held in San Lorenzo de El Escorial.

At the round of conferences organised by Universidad Complutense de Madrid and by the trade union UGT – Madrid on 6, 7 and 8 July, several experts, executives, and representatives of companies and institutions discussed the needs of urban centres to achieve the transformation of cities into smart cities. In this transformation, the relationship based on transparency, accountability, and the use and appropriate recovery of resources, innovation and technology are among the fundamental elements to be taken into account. One of the greatest challenges faced by smart cities is management of urban



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waste, a subject that was discussed in detail at a round table in which Raul Pérez participated.

The director of FCC Medio Ambiente's Madrid branch described the improvements required in this field on which the Group is already working on at its various services and locations. Proof of this is FCC's commitment to the preservation of environmental sustainability y means of the technological development of waste collection vehicles with reduced polluting emissions.

In another topic discussed at the session, Raúl Pérez stressed the importance of improving communication with citizens in order to optimise the information given to residents in relation to the urban waste management and treatment process. In this respect, Pérez mentioned that the top priority was to reduce the production of waste through

the correct prevention and the awareness of citizens while companies in the industry perfected their waste collection systems and their facilities.

Lastly, Raúl Pérez underscored the need for wagering on the development of the energy-from-waste industry, considering waste as an energy resource.

### FCC Medio Ambiente and Down Madrid

### enter into a collaboration agreement to improve the social and job integration of people with different capabilities

FCC, through its Environment Division and the Madrid Down Foundation, entered into a framework agreement to promote different measures aimed at improving the quality of life of people with Down syndrome and other types of intellectual disabilities so as to achieve their full integration, socially and in the workforce.

The event, held at FCC's headquarters in Madrid, counted with the presence of representatives of both entities and the agreement was signed by Luis Suárez, manager of Human Resources at FCC Medio Ambiente, and Elena Escalona, managing director of Down Madrid.

Luis Suárez stressed the responsibility of companies when incorporating people with different capabilities for their correct integration in society. He also pointed out that FCC does not simply comply with the Law on the Social Integration of the Disabled, part of the General Disability Law, but goes beyond far beyond this and more than complies with the 2% minimum quota. A video was shown after his speech describing what FCC is doing in this respect, showing workers with



Representatives of both entities during the Agreement signing ceremony

intellectual or physical disabilities performing their jobs and fully integrated in their work teams.

Elena Escalona was impressed with the Company's real commitment to integrating people with special characteristics in their teams and said that this was the first agreement of its kind that the Foundation had signed with a company listed in the lbex35 stock market index.

The aim of the agreement is the incorporation of participants in Down Madrid's Stela Service at FCC, the collaboration of this entity in training participants and the possibility that those who participate in Down Madrid's Job Training programs for internship work at the Environment Division of the Citizen Services Group.



The aim of the agreement is the incorporation of participants in Down Madrid's Stela Service at FCC

"

### FCC signs two agreements

### to create awareness on trafficking in women and their integration in the workforce



FCC's Environmental Services Division signed two collaboration agreements with two religious orders, the Sisters Adorers and the Oblate Sisters, who provide housing, orientation, and social integration in order to promote awareness on women at risk of social exclusion or are subject to trafficking and their integration in the workforce.

Both agreements were signed at the Las Tablas headquarters of FCC in Madrid in the presence of representatives of both entities and of the Human Resources Department of the Business area.

The aim of these agreements is the collaboration of FCC and both entities through hiring for the services that they provide in various Environment concessions nationwide. The goal is to make effective the social and job integration of women who have been victims of trafficking as well as the necessary collaboration to build awareness against this violent phenomenon.

#### **Sisters Adorers**

The Hope project of the Sisters Adorers, which FCC has joined, has been accompanying and facilitating a future to more than 300 women who were victims of women trafficking. It also collaborates closely with other organizations within the framework of the Spanish Network against Human Trafficking and the Global Alliance Against Traffic in Women (GAATW).



#### **Oblate Sisters**

The mission of the "Your Home" project of the Oblate Sisters is to offer a space where these women can live to protect their integrity and that of their children; facilitate their personal and social autonomy and their social-job integration.

By signing these agreements, FCC joins the worldwide movement against human trafficking coinciding with the celebration of the World Day Against Trafficking in Persons of the United Nations to create awareness on this problem and, from its Environment Division, to reinforce its commitment with the communities where it provides services.



In the photo above, representatives of the Oblate Sisters with members of the Human Resources Department of FCC's Environmental Services. In the photo below, representatives of the Sisters Adorers during the agreement signing ceremony.

## FCC Aqualia, is a finalist in the "El Chupete" International Children's Communication Festival

Then FCC Group subsidiary is the first company in the water sector to be chosen to participate in the "El Chupete" International Children's Communication Festival. The "Drawing Contest" was a finalist in the contest where more than 200 participated.



The president of the "EL Chupete" Festival, Rodrigo Ron (first on the right) gives the diploma to the FCC Aqualia Communications and CSR team.



The "El Chupete" International Children's Communication Festival selected FCC Aqualia's initiative, the "International Children's Drawing Contest" as a finalist in the 12th edition of this festival which, every year gives an award to the best creative works with social values aimed at children and youngsters.

The International Drawing Contest, which FCC Aqualia has been organizing every year since 2002, was the Company's wager for participating in this festival for the first time in the Digital Campaign category, competing with the work "What we really think of them" of the OgilvyOne Madrid Agency for ING and in favour of UNICEF which won the first prize in this category.

The contest is just one of the numerous awareness-building actions developed by the company and is focused on contributing to the development of the cities and towns where the Company operates, with a strong social commitment in all of its business decisions. Over the past few years, the Drawing Contest is FCC Aqualia's main tool to teach

children about water management in municipalities and to create awareness amongst them on respect for the environment. In 2016, the FCC subsidiary organized the 14th edition of this initiative under the slogan "The cycle of water for the brave". A message disseminated among more than 160,000 people: 150,000 school children, 6,800 teachers, 2,000 employees, 1,000 city councils, and 850 news organizations.



In the photo, the mentors and mentees who participated in the 2016 edition of the Mentoring Program, one of the Company's initiatives in the field of Equality.

## The Ministry endorses FCC Aqualia's commitment to Equality

The Ministry of Health, Social Services and Equality endorses the work that the company carries out on a daily basis to equalise the work of men and women. This work has been recognised since 2010 with the "Equality in the Company" seal.

The Ministry of Health, Social Services and Equality has endorsed the 5th annual monitoring report on the "Equality in the Company" seal submitted by FCC Aqualia. In the report, the Company details the measures implemented in relation to the equality seal that the Ministry granted in 2010 as well as the evolution of the measures developed since 2013, the year on which the seal was renewed.

In its report, the Administration expressed its agreement with the awareness campaigns developed by FCC Aqualia to celebrate the International Women's Day on 8 March and the fight against gender violence on 24 November as well as other training measures on equality with more than 800 participants throughout 2015, particularly the actions to facilitate the increase of women in managerial positions, such as the Management Program for Women with High Potential, the Mentoring Program to promote women, the "Lead your future" and "Support Talent" workshops.

Despite all the work that has been carried out, there is still a lot of work to be done. FCC Aqualia has set as its challenges to achieve gender parity in managerial positions and in the makeup of its Board of Directors as well as in Senior Management. The salary gap is another great challenge for the company in its commitment to promote and ensure equality excellence in the Company.

Since the Ministry of Health, Social Services and Equality granted the "Equality in the Company" seal, FCC Aqualia has strengthened its commitment to the fight against gender inequality in favour of equal treatment and opportunities among men and women, disseminating this message and having all the team that makes up the company involved in this process.

## The Ministry of Health, Social Services and Equality rewards FCC Construcción with the ""Equality in the Company" seal

FCC Construcción was awarded the "Equality in the Company" seal 2015 by the Ministry of Health, Social Services and Equality as recognition for the support and commitment with policies aimed at achieving equal opportunities among men and women.

Alfonso Alonso, the minister of Health, Social Services and Equality sent a letter to FCC Construcción congratulating the Company for the work carried out.

FCC's Code of Ethics stresses the need to promote equality policies for fair treatment at all levels and for the elimination of gender barriers in work environments.



### FCC Construcción publishes its 2015-2016 Sustainability Report

The publication of the report, which focuses on the UN Millennium Development Objectives, coincides with the first anniversary of the UN Sustainable Development Goals.

FCC Construcción has published its 2015-2016 Sustainability Report to outline the company's efforts to integrate the UN Millennium Development Goals into its strategy.

The report highlights the significant actions in relation to the way of managing the company's human rights, employment standards, the environment and the fight against corruption throughout the 2015 financial year, and how these efforts and initiatives of the organisation help to achieve the SDGs.

The Report, drawn up in accordance with the "comprehensive" option of the GRI G4 Guidelines, was based on a materiality criterion and, therefore, although it deals with a wide range of issues to give an account of our performance regarding sustainability, focus is placed on issues that are important for the organisation and its main stakeholders.

FCC Construcción experienced major change in 2015. It was a vear in which our company began a major transformation in the areas of operation, finance and governance, seeking to strengthen our ability to provide improved and more sustainable solutions to better respond to the wellbeing and development of people.

Internationalisation is an obstacle we must overcome by capitalising on the best human and technical resources, allowing us to embark on projects in any part of the world. With revenues of 1,993 billion euros in 2015. and with a stable presence in more than 15 countries, over 78% of our backlog is secured internationally. This situation means that developing our sustainability strategy around 17 global objectives is an important roadmap to follow in order to facilitate its implementation in the different business areas and alongside our stakeholders.

The Report gives an account of milestones including the active participation in working groups in relation to sustainable construction and innovation, restructuring in Spain, the commitment to training and the safety of our employees in the workplace. It also mentions the accolade of obtaining the "Equality in the Workplace" hallmark from the Ministry of Health. Social Services and Equality: renewing the FCC Construcción communication model by expanding its communication channels through different social network profiles; as well as extending the Environmental Management System certification to cover 97% of all company activities.

Lastly, the high number of case studies outlined in the publication is worthy of mention. They highlight the company's actions and commitments related to communication.



training, development of local economies, and the Environment. Human Resources or Innovation in the different countries where we operate.

One year has passed since the 2030 Agenda for Sustainable Development was launched on 25 September 2015 when worldwide leaders agreed on a set of global objectives to achieve sustainable development.

This global action plan entails a set of 17 Sustainable Development Goals and 169 specific targets which address the most pressing challenges to be faced by people and the planet in the next 15 years. It is also important to mention that it not only seeks to end extreme poverty and hunger, guarantee health, education, water and sanitation or economic development, but does so from a comprehensive and universal approach, balancing the three dimensions of sustainable development: economic, social and environmental.































Read the report:

## FCC Construcción publishes its sixth report on Greenhouse Gas Emissions, verified by an external entity

For the sixth consecutive year, FCC Construcción has validated its Greenhouse Gas (GHG) Emissions based on UNE-EN-ISO 14064-1 standard and the sector's EN-CORD benchmark, once again demonstrating the efforts of the organization for measuring and reporting on its environmental performance based on internationally consolidated methodologies.

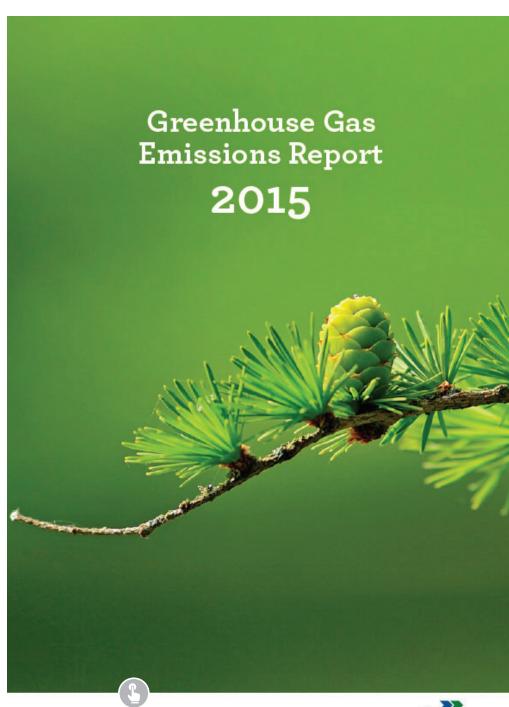
Aware of the importance of climate change, in 2010 FCC Construcción implemented its Climate Change Strategy, designing a methodology to be able to confirm the situation by quantifying GHG emissions in its organization.

FCC Construcción was the first Spanish construction company to have the report verified by AENOR and, since 2012, has the "Environment  $\mathrm{CO}_2$  verified" certificate of its carbon footprint which confirms the veracity of the calculation as well as the inclusion of GHG management in the organization's system and strategy.

FCC Construcción was also the first company to voluntarily record its carbon footprint in the corresponding registry of carbon footprint, compensation and absorption projects created in 2014 by the Ministry of Agriculture, Livestock, and Environment. Data reflected in the 2015 report will be registered, along with the footprints of 2013 and 2014, in this Public Registry.



FCC Construcción was the first Spanish construction company to verify this type of GHG emissions report



Link: Read the report



## FCC Industrial produces renewable energy at its Guzmán (Córdoba) and Villena (Alicante) thermosolar plants for the consumption of more than 30,000 households



Since 2012, FCC Industrial has been operating and maintaining two thermosolar plants of 49.0 nominal megawatts/hour based on the parabolic cylinder collector technology both of which were designed and built by FCC Industrial.

The Villena thermosolar plant in the province of Alicante occupies a plot of land of about 200 hectares. It has a solar field of more than 141,000 mirrors which translates into a 360,000 m2 area for capturing energy.

The Guzmán thermosolar plant in Palma del Río (Córdoba) occupies an area of 897,000 m². The solar field comprises more than 129,000 mirrors equivalent to a 310,406m² area for capturing energy.

These thermosolar plants mark an important milestone, reflecting FCC Industrial's contribution to sustainability and energy efficiency. The annual electricity generation capacity of both plants is more than 190 gigawatts hour annually, which means that it is able to supply 30,000 households and a population of approximately 70,000 inhabitants.

As a result of this, both plants contribute to reducing carbon dioxide emissions by 16,400 tons a year, equivalent to the carbon dioxide that would be absorbed by a forest of 15,000 hectares.

#### Sustainable company

FCC Industrial in its activities involving the operation and maintenance of photovoltaic and thermosolar plants makes it possible to reduce carbon dioxide emissions by 119,400 tons a year, thereby contributing to the fight against climate change. In Oil&Gas activities, the Company contributed to the commissioning of the Mariña-Lucense gas pipeline, reducing 250,000 tons of carbon dioxide emissions annually.

Sustainable practices have been implemented in the Guzmán thermosolar plant, in line with the environmental policy implemented at FCC Industrial. Nesting points were created at the evaporation basis for species such as Ciconia Nigra and Phoenicopterus. Entry and exit access were also created for bird life. Thanks to these measures, the local population of black storks and flamingos has increased.



## FCC and INADEH offer a sewing course for the communities living in the La Valdeza quarry in Panama

FCC Construcción, jointly with Instituto Nacional de Formación and Capacitación para el Desarrollo Humano (INADEH), completed the fourth sewing course for the residents of the communities near the La Valdeza quarry in Panama. Thirteen women from different communities such as 19 de Abril and la Valdeza attended classes to specialise in making curtains and decorative borders.

The course, lasting one and a half months, was taught by Berta Reyes from INADEH

who taught the different sewing techniques. Professor Dilsa Gutiérrez de Samaniego discussed the importance of these courses for people living in the area and thanked FCC and INADEH for the work they had carried out to develop activities that promote entrepreneurship.

Ana Kanyelis, the coordinator of INADEH in West Panama, said that in order to encourage them to continue their professional development, a course on entrepreneurship would be organised shortly so that the women could fulfil their goals.

Carlos Pantoja, head of FCC Industrial in America, indicated that the company would continue to support these types of initiatives aimed at the development of residents in the areas adjacent to the projects so that, having learned sewing techniques, they are encouraged to open their own businesses.

## on the development of communities

FCC has been involved for several years in the development of the communities living near the La Valdeza quarry, promoting different initiatives such as sports events, road repairs, construction of sports facilities, environmental campaigns to reduce noise, and seminars on health.

## What to do in the event of a virtual kidnapping

#### Advice from FCC's Corporate Security Department

The Corporate Security Department and General Services of FCC have prepared a document providing information on what to do in the event that you are a victim of a virtual extortion and kidnapping scam. The manual, drafted with information from the Civil Guard's Kidnapping and Extortion Team, was published because of the increase in this type of threat.

Even though in Spain, unlike other countries, the incidence of virtual kidnappings is still rare, there have been recent cases in our country. This is why FCC's Corporate Security Department and General Services

decided to prepare this document to keep all employees informed.

Virtual kidnapping is a type of extortion by phone in which a kidnapping is simulated in order to ask for money, mostly by transfer or cash in an envelope, an option that poses a greater risk.

The extortionists take advantage of situations where the alleged victims are not reachable in places such as cinemas or on an airplane to make their families believe that they have been kidnapped.

The modus operandi of this scam usually follows the same pattern. The scammers obtain personal information on the victims mainly in social networks then take advantage of situations when they do not have access to their cell phones or are unable to contact their families to begin the extortion.

They convince the family of the alleged victim that the kidnapping is for real and then ask for ransom. At the moment when one agrees to the extortion is when the real danger begins since, not only does it contribute to perpetuating the crime but also poses the real risk of being kidnapped.

## What to do if a scammer calls you?

Do not provide any personal information until confirming that the call is safe.

Ask for precise data on the identity of the victim in order to dismiss the possibility of an actual kidnapping.

Before becoming alarmed, think of where your loved ones are.



# \*\*Learning how to live securely\*\* workshop at the Spanish Chamber of Commerce in Mexico



FCC took part in the workshop "Learning how to live securely", an event organised by the Security Commission of the Spanish Chamber of Commerce (CAMESCOM) in Mexico City.

The Security Commission of CAMESCOM in Mexico was set up this year following a proposal put forward by some of its members with a view to promote and disseminate the culture of safety and cyber security among colleagues.

Joaquín González López, head of security for the FCC Group in America, and member of the Security Commission, came forward to highlight the importance of establishing effective measures to prevent offences and to protect citizens in an effort to guarantee a more secure future.

David Lee Zamora, national manager of the security campaign "For a more secure future", gave a dynamic talk entitled "Learning how to live securely" on how to tackle the

issue of insecurity. Although the speech centred around the current context of security in Mexico, in his talk David Lee proposed five steps, transposable to any setting, which should be followed by all citizens in order to prevent or undo the offence:

- **1.**IInformation, as a knowledge process that should encourage us to reflect and recognise the necessary actions to counteract crime.
- Risk analysis, to assess the threats present in our lives.
- **3.**Plans, to react accordingly when faced with adverse events in a personal, family, neighbour, school, work and social context.
- 4. Security habits that are properly acquired, internalised and repeated to help minimise the possibility of becoming a victim.
- **5.**Investing in equipment to enable us to live securely and to protect our lives and belongings; always with expert guidance.

Experts claim that 90% of success with tackling the crime is down to prevention, 5% owing to how we react and the rest, luck.

These percentages emphasise the prominence of raising awareness of the topic in order to combat insecurity, reduce the number of victims and prevent young people from becoming criminals.

Lastly, with regard to the question and reflection of how we can play a part in changing Mexico, he called on the packed audience to join efforts to become part of the solution instead of the problem.

## Well-being



## Learning about the Family Plan



It's not every day that we have the chance to learn about stories of personal growth, stories that are difficult to forget and which drives us to become better persons. The moving story of Jimena, a beneficiary of the Family Plan, daughter of Lola, an FCC Aqualia employee is such an example.

The Family Plan, developed by Fundación Adecco, is aimed at family members of FCC employees who have a disability. The goal of this project is to enable these individuals to achieve maximum personal, social and professional development thanks to a personalised and multidisciplinary support process. This support, provided by psychologists, educators, and therapists from Fundación Adecco, enables beneficiaries, be they children, youngsters or adults, to acquire the competencies and skills necessary for being more autonomous and employable. The purpose is to enhance their quality of life, particularly enabling them to perform a job in the short, medium, or long term.

#### The story of Jimena

Since the Family Plan was launched in 2008, 79 FCC people and families have benefited from this initiative. One of them is Jimena, a 5-year old girl whose story if full of "efforts, motivation, courage and work", according to Sara Romero, the consultant of the Family Plan who is in charge of her cases at Fundación Adecco.

Jimena is the daughter of Lola, an FCC Aqualia employee. She suffers from a

metabolic-endocrine disorder considered a rare disease. Because of a genetic problem, Jimena's adrenal glands do not function. These grape-sized glands are vital since they regulate aspects such as our hydration, blood pressure, heartbeat, sugar levels, and our response to stress. It is impossible to live without these glands and, therefore, its diagnosis is part of the heel prick test performed in newborns.

Many must think that because of this Jimena does not lead a "normal life", although the meaning of this expression, used so often, is not the same for everyone. In this context, Lola said, "my daughter Jimena lives this situation very naturally. Besides, even though it is technically considered a disease, we don't think of it as such because she does not feel sick".

Even though Jimena and her family must pay attention every day to her medication, for Lola, the most important thing is not to attach great importance to the disease so that there is no room for feeling sorry for her. "The words 'poor girl' have been prohibited at our house from the day that Jimena was born", Lola assured us.

Jimena currently receives help from the Family Plan on two fronts. The medical treatment she receives to replace the function of the glands would perform naturally is constantly monitored at a specialised hospital by endocrinologists and nephrologists. Sara, from the Family Plan is in charge of encouraging all the skills and capabilities that will enable Jimena to be more autonomous, personally and professionally, through a plan that includes educational or training, social, and job resources adapted to Jimena's age and requirements.

"During the first months and years of Jimena's life, this is essential for the proper psychomotor development and good coordination. Physical exercise is also im-



ying Jimena and advising us is essential for her so that she can have a great future", she said. As parents, Lola and her husband imagine that their daughter will have a happy life, a future where, according to Lola, she does not "feel discriminated or limited by anything, where Jimena can aspire to whatever she wants without fear of not being able to do so because of her condition".

#### A great challenge ahead

Currently, families where one of their members has a disability, face a great challenge; the complete social integration of these people: a challenge that can be overcome and which is also our responsibility. According to the report on disability and the family by Fundación Adecco, many of the families interviewed believe that there was still a lot of prejudice and stereotypes that make the full integration of people with disabilities difficult. Of those interviewed, 45% have felt that this is the case in schools where their children "cannot participate on equal footing in educational activities".

At FCC, we will continue to work with Fundación Adecco and through the Family Plan to help all of our employees who have a family member with a disability to change this trend and to contribute to creating greater awareness in the community.

portant so that Jimena maintains a healthy weight. As she grows, her needs change and, therefore, in view of her schooling, we provide the necessary support so that she is always at the same level as the rest of her class, and so far, we have been able to accomplish in all of her school subjects", Sara told us.

#### Support for the entire family

The Family Plan provides support not only for the family member with a disability but to the entire family. In Jimena's case, the parents and siblings go to the Family Plan School. There, through talks, workshops, camping activities, all their concerns about Jimena's disability are discussed. They can share their experience and also learn from other families

in a similar situation. Having a family member with a disability is not always easy but it is much simpler when you have people who understand, accompany you and help to make day-to-day living less complicated. And yes, this can be achieved.

Lola appreciates everything that FCC and Fundación Adecco, through the Family Plan, have done for her entire family. "Having the possibility of someone accompan-



Read Link

Check the Fundación Adecco's 50 report on Disability and Family













## FCC Medio Ambiente promotes environmental education for children with the recycling 'Goose Game'

FCC Medio Ambiente's Centre Branch Office launched an educational program for 5-6 year olds to build awareness on recycling and sorting waste through the 'Goose Game' board game.

This activity, conducted in Pozuelo de Alarcón (Madrid) was developed as part of FCC's policy of bringing the services that it provides closer to the community and educating families on important issues such as the conservation of the environment and the sustainable development of cities.

The combined work of Antonio Rodríguez Gómez, head of the FCC Medio Ambiente Centre Branch Office, of Leo Guldentops López, the head of the service, and of Roberto Pérez, the foreman in charge of waste collection and cleaning in Pozuelo de Alar-

cón, came up with the idea of creating a recycling 'Goose Game'.

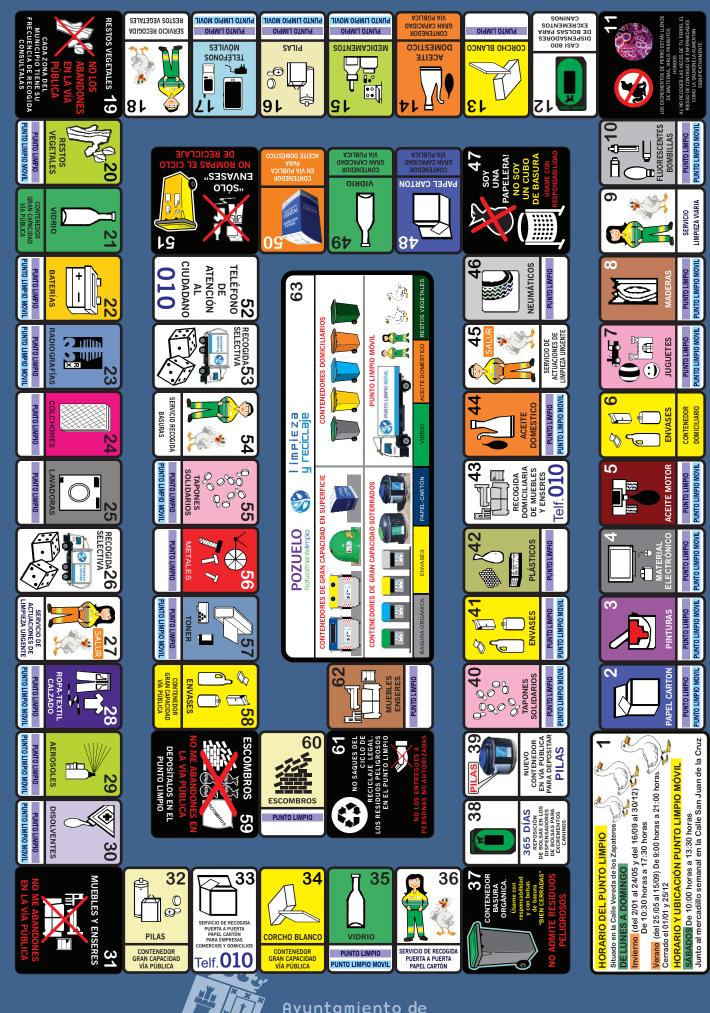
In this environmental version of the game, children are the protagonists. Each player is assigned a colour according to the type of waste (Blue – paper/cardboard; Yellow – containers; Green – Glass; and Orange, household oil) that are used for playing on a large board, jumping over the different boxes as if they were game pieces.

Each of the boxes is assigned an educational purpose, such as explaining recycling concepts, informing them of where each type of waste should be deposited, encouraging good environmental practices, or warnings and prevention of uncivil practices.

This training project is part of the collaboration activities that several schools are carrying out in collaboration with the Centre Branch Office this year, such as the tour by students from the SEK Santa Isabel school to the various facilities at the municipal waste collection and street cleaning facilities in Pozuelo de Alarcón or the mobile Clean Points (household waste recycling bins) installed at various schools.



The goal is to educate children on recycling and the sorting of waste





## Once again this year, FCC joins the European Mobility Week

In keeping with its commitment to sustainability and to improving the quality of cities, and with the Strategic Road Safety Plan, FCC, through the FCC Medio Ambiente Levante II Branch Office, have joined the EDWARD project which aims to reduce the number of road traffic accidents in European cities as part of the actions carried out in cities during European Mobility Week, celebrated each year from 16 to 22 September.

Promoted by the European Traffic Police Network (TISPOL), the aim of the ED-WARD Project is to have the 21st of September as the European Day without any mortal road accidents. Different types of material were distributed to create awareness on the initiative.

The Levante II branch of FCC Medio Ambiente translated and distributed the poster describing the commitment to join the ED-WARD project as part of the actions to promote Road Safety.

This project, jointly with the European Day Without a Road Death (EDWARD) celebrated on 21 September and for which cities such as Madrid and Barcelona organised special activities, are some of the activities of the European Mobility Week (EMW) which this year has the slogan, "Smart Mobility. Strong Economy". The objective of this edition is to promote the positive impact that smart mobility can have on the economy.

The actions carried out over the past few years as part of the European Mobility Week have resulted in a greater number of countries and cities joining the project, organizing activities and implementing initiatives to create awareness among citizens on the importance of achieving a more sustainable transport. Spain, with 424 cities joining this edition is, jointly with Austria, one of the countries with the greatest participation.



## The VW Up of the All-gas project is the protagonist of the Mobility Week in Jerez

FCC Aqualia took part in the 5th edition of the Sustainable Mobility Fair in Jerez. All-gas was the Company's wager for participating in this event where citizens discovered the challenges posed by this revolutionary project which aims to obtain biogas from the cultivation of microalgae fed with wastewater.



Researchers Raúl Cano and Esteban Serrano were the representatives of FCC Aqualia at the fair where the Volkswagen Up - which is being used for testing the biofuel currently being produced at the project facilities - was displayed. The Councillor for Sustainability, Participation and Mobility of Jerez City Council, José Antonio Días, visited

the Company's information stand and his opinion was very positive with regards to FCC Aqualia's commitment to developing R+D projects to obtain alternative sources of clean energy.

Jerez City Council planned several initiatives for celebrating Mobility Week and for creating awareness on this issue. FCC Aqualia's collaboration in this event is in keeping with its strategy of contributing as much value as possible, more than just its day-to-day technical management, in the territories where it operates.

## FCC supports the initiative "Companies for a society free of gender violence"

FCC is one of the companies playing a leading role in the video produced by the Government Delegation for Gender Violence. The video shows the actions carried out by institutions that are members of the Initiative of the Network of Companies against gender violence.

The video describes the commitment of companies to eradicate gender violence in society. As regards FCC, it shows some of the awareness-building actions launched by the FCC Group in its various communication channels with the objective of creating awareness on the need to eradicate this social scourge and to mitigate the effect on its victims.

FCC signed the Collaboration Agreement in 2010 with the Ministry of Health, Social Services and Equality to promote Awareness on Gender Violence and the Incorporation in the Job Market of its Victims and since 2012 is a member of the Network of Companies for a Society Free of Gender Violence.

The Citizen Services Group has signed several agreements with entities specialising in incorporating women who have been victims of gender violence in the job market and has joined several campaigns launched by national and international institutions.



#### Committed

For FCC, the fight against gender violence can be summed up in two principles:

- Zero tolerance with these types of practices.
- Promoting the social and professional integration of victims.



Watch the video on the initiative against gender violence



## FCC collaborates in Ecoembes "Recycling to change lives" social integration project

The Las Marinas Solid Waste Treatment Plant (in El Campello, Alicante) owned by FCC Citizen Services, welcomed two students to an internship program called "Recycling to Save Lives" sponsored by Ecoembes, which encourages the integration in the job market of people at risk of social exclusion.

"Recycling to Save Lives" is a program launched by Ecoembes with the objective of training people at risk of social exclusion, offering courses on waste management and a work experience to promote their access to the job market, specifically in the green sector.

The origin of the project is the agreement signed by Entidad Estatal de Trabajo Penitenciario y Formación para el Empleo (State Entity for Penitentiary Jobs and Job Training) pursuant to which Ecoembes organised recycling workshops at Spanish correctional centres. These workshops made it possible to create paid jobs with Social Security contribution and a positive impact when reviewing sentences. In 2014, Ecoembes extended the project nationwide, setting up workshops in 46 penitentiaries, two social insertion centres, and two social entities.

In line with its social commitment, the Las Marinas urban solid waste treatment facility wagered on the "Recycling to save lives"



project and welcomed the students who had received specific training recyclable materials at treatment plants. Before starting the internship, the two students received training on the prevention of occupational hazards at these types of facilities and were given work clothes and protection equipment, thereby increasing their integration with other works at the facility. During their internship, students had the opportunity of putting into practice what they had learned in the 180-hour course given by Ecoembes. Thanks to this program, 1,534 individuals at

risk of social exclusion have received training on waste management, 115 have worked as interns at companies in the sector, and 41 have found jobs in the waste industry.

For the 2016 edition, currently under development, more than 800 people at risk of social exclusion will receive training in waste management and more than 50 of them will be able to work as interns in companies.





Read pdf



# Check your health at FCC's Medical Services

The arrival of autumn is the ideal time for a check-up at the Medical Services that FCC offers its employees.

Knowing your health condition is essential for improving your quality of life. When it comes to your health, surprises are not usually desirable or pleasant. Learning about your health on time makes it possible to tackle bad news with solutions, often quite simple, preventing complications that can clearly deteriorate our quality of life.

FCC's Medical Services are well-equipped with medical equipment and personnel who can successfully treat any incidence and also can help you prevent possible diseases or disorders, such as cardiovascular problems.

The FCC Medical services recommend monitoring these cardiovascular risk factors.

Cholesterol, high blood pressure, smoking, or diabetes can seriously affect our health and incapacitate us to perform our daily activity. Normally, there are no symptoms

but, when they appear, they could be very serious. Simple advice and habits enable us to act efficiently without the need for medication or complicated tests.

Call us and we will inform you: FCC Medical Service. number 913142429

### 6th Corporate Meeting on the

## Prevention of Occupational Hazards



Delfina García Martínez, head of FCC Medio Ambiente's Occupational Hazard Prevention Department.

FCC Medio Ambiente participated in the 6th Corporate Meeting on the Prevention of Occupational Hazards (POH) organised in Alcobendas (Madrid). The purpose of the meeting is to disseminate the preventive culture in companies in the Madrid Autonomous Community.

Delfina García Martínez, head of FCC Medio Ambiente's Occupational Hazards Prevention Department, represented the Company with a speech entitled "Model of a Healthy Company in Urban Sanitation Activities". Promoting the health, safety, and welfare of its employees is included in the objectives of FCC Medio Ambiente in relation to the prevention of occupational hazards, integrating the health of workers in the Company's management policy which promotes preventive actions against diseases and accidents at work and other work-related disorders as well program of preventive measures to encourage healthy habits among employees and their personal surroundings.

The key objective is to prevent occupational hazards, including currently emerging diseases such as cardiovascular pathologies, problems related to the lack of physical activity and a sedentary lifestyle, inadequate eating habits and overweight, consumption of harmful substances such as tobacco, muscle-skeletal disorders and stress. To tackle these problems, specific programs have been launched to eliminate or reduce these risks and to contribute to promoting health in the company in order to have a more pleasant and attractive work environment, improved performance at work, and the right work-life balance.

The factors that have an impact on healthy work places are:

#### Physical work atmosphere

This refers to the structure, air, machinery, furnishings, chemical products, materials, and production processes at work.

#### • Psycho-social work atmosphere

The psycho-social work atmosphere includes work organization, the institutional culture and the attitudes, values, beliefs, and practices at work on a daily basis which affect the mental and physical well-being of employees. These are generally known as the stressing work factors. It is also influenced by the individual characteristics and actions of workers.

#### • The Company's health resources

The personal factors have an impact on health at work are the individual lifestyles, health services, information, resources, opportunities and the flexibility of the company in relation to workers for the purpose of supporting or motivating their efforts to improve or maintain their personal healthy lifestyles as well as monitoring and supporting their current physical and mental condition.

#### The Company's involvement in the community

Companies exist in communities, affect them are affected by them. Since workers live in communities, their health is affected by the community's physical and social environment. The Company's participation in the community includes the activities conducted by the company and the specialised knowledge and other resources that it contributes to the community where it operates, both in terms of physical as well as social aspects that affect the physical and mental health, the safety and well-being of workers and their families.

# En mi trabajo la prevención sí vale la pena





## Knowledge

FCC participating in

## Methamorphosis project to convert waste treatment centres

into bioenergy factories







The project, headed by FCC Aqualia in partnership with Area Metropolitana de Barcelona (AMB) (Association of Metropolitan Barcelona Municipalities), FCC Medio Ambiente (the Spanish brand for FCC Environment), Gas Natural Fenosa, the Catalan Energy Institute (ICAEN) and SEAT, seeks to develop an innovative process for enhancing biofuel production from municipal, agricultural and industrial waste. A project progress report was presented at Biometa 2016, held in Barcelona in May.

Methamorphosis, which was granted funding in 2014 by Europe's prestigious LIFE programme (which supports actions to mitigate climate change), seeks to increment biogas production from municipal waste leachate by modifying and innovating processing techniques. The gas produced by this methanisation process is enriched for use as fuel in vehicles, which contributes to reducing greenhouse gas (GHG) emissions; in the future, it may be injected into the natural gas grid. The project envisages the installation and operation of prototypes to increase biogas output and enrich its biomethane content at the Ecoparc 2 municipal solid waste treatment centre in Montcada i Reixac (Barcelona), which is owned by AMB and managed by FCC Medio Ambiente. The prototypes are based on three innovative technologies developed by FCC Aqualia: an anaerobic membrane bioreactor (AnMBR), a patented system for autotrophic denitrification (ELAN®), and a patented upgrading facility that will produce enriched biomethane from biogas (ABAD®).





This new process will enhance efficiency while also reducing greenhouse gas emissions, by cutting energy demand by 70% and reducing CO2 emissions by 80% with respect to conventional processes. ICAEN will assist in transferring the knowledge obtained from the project and in enhancing its replicability. Methamorphosis represents a step forward in extracting energy from waste and is an important contribution to a circular economy, since it turns a waste treatment centre into a fuel production facility with the ability to feed both vehicles and the distribution network.

The efficiency of the enriched biomethane will be demonstrated in tests with SEAT vehicles monitored by that company's engineers and in FCC Medio Ambiente vehicles that currently use natural gas, in a series of tests totalling 120,000 kilometres per vehicle

The test with FCC Medio Ambiente vehicles will be conducted in normal conditions as the vehicles perform their day-to-day tasks. GHG emissions are expected to be reduced by 30% with respect to diesel, and the impact of biomethane on performance, engine components, fuel consumption and emissions will be assessed in the test fleet,

The technology incorporated by this project will enable waste treatment facilities to be more efficient and to reduce greenhouse gas emissions



The project in which
FCC participates through
its water and environment
subsidiaries is
co-funded by
the European LIFE
programme and has
a total budget of 3.6
million euros



"

by comparing with existing data from using network's natural gas.

Through this project, the FCC Group is furthering the development of a fuel from renewable sources that is both cleaner and more environmentally friendly than existing liquid fuels, produces lower emissions of harmful particles, improves air quality, and helps reduce dependence on fossil fuels. The project is a clear manifestation of FCC's tech-

ture development. It currently employs over 50,000 people and operates in 25 countries. In 2015 it obtained close to 6.5 billion euro in revenues, 47% from countries other than Spain.

FCC Aqualia is the water management subsidiary of FCC, one of Europe's leading citizen services companies. It is the largest Spanish company in its industry, the third-largest private water company in Europe and the seventh-largest in the world, according to the most recent ranking by Global Water Intelligence (GWI) magazine; the company serves 22.5 million people. It currently operates in 1,100 cities in 21 countries.



nology innovation policy, which is focused on providing smart services to citizens and on the practical application of synergies derived from combining the experience of our business areas — Water and Environment, in this case.

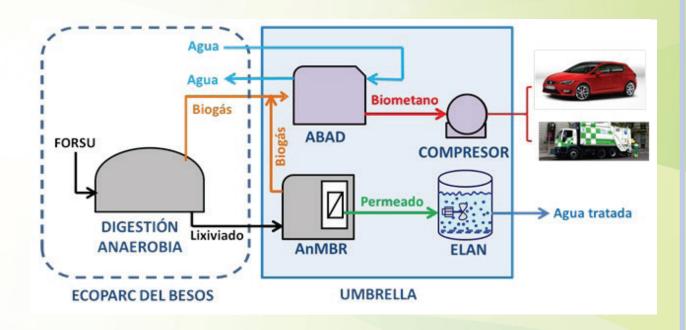
The FCC Group has over 115 years of experience in providing services to citizens. It is a world leader in environmental services, end-to-end water management, and infrastruc-



SEAT vehicles and FCC Medio Ambiente to test biogas produced in the project over 120,000 kilometres

23

#### Outline of the process in Ecoparc2



#### General data

Type of facility: Composting and biomethanisation

Activity: In operations

Owner: Entitat Metropolitana de Serveis Hidràulics i Tractament de

Residus

Situación: Pol. Indus. Can Salvatella de Bar-

berà del Vallés-Montcada i Reixac

(Barcelona)

Population Municipalities in the Barcelona

served: Metropolitan area except Barce-

lona and the towns in Vallés and

Maresme (570,000 inhabitants)

Construction ECOPARC DEL BESÒS, S. A. and management: (EBESA) (FCC, S. A. - TRACTA-

> MENT I SELECCIÓ DE RESIDUS, S. A. -TIRSSA-DIVERSOS)

#### Technical data

Design capacity: 260.000 t/year (RESTO + FORM) +

27.500 t/year (containers)

2 x 45 t/h (RESTO) / 1 x 23 t/h (FORM)

Pre-treatment lines: 1 x 7 t/h

Bottling line: 2 x 20 t/h

Refining line: 120.000 t/año

Biomethanisation: 3 x 3.900 m<sup>3</sup>

Digesters x Useful capacity: VALORGA (Vía Seca)

Biotethanisation technology: -Túneles estáticos (17 Uds.) ROS ROCA

Aerobic composting: -Trincheras volteadas TRACO IBERICA

Treatment of leachates: Planta de tratamiento

Power generator: JENBACHER J 320 GS-B21 (4 Uds.)

### FCC promotes development of an electric vehicle prototype for providing urban services





MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD



FCC Environment continues its commitment to the search, creation and application of new technologies in the services sector with the aim of minimising emissions in the environment and boosting competitiveness in Spanish companies.

One outcome of these efforts takes the shape of the VEMTESU Project (Development of High-Efficiency, Electric-Traction, Vehicular, Modular and Self-Supporting Platforms for Urban Services), which has

been funded by the Centre for the Development of Industrial Technology (CDTI), as part of the CIEN programme, and the European Regional Development Fund (ERDF), through the 2014-2020 Multiregional Operational Programme on Intelligent Growth.

The main objective of the project is to establish, design and develop a vehicle prototype for urban services provision, which will operate completely electrically in an urban environment. In the same way, in an extra-

urban environment, the vehicle is able to recharge its own batteries as it moves, taking advantage of the energy from its heat engine and electrical power generator, which enables it to extend its electrical autonomy for a whole working day.

As a leader in the urban services sector both in Spain and abroad, FCC Environment is aware of the need to study new means of propulsion for vehicles so as to reduce the emission of harmful gases as much as possible, as well as the dependence on fossil fuels in transport.

The consortium formed to undertake the project is made up of highly renowned companies such as FCC, IRIZAR, IVECO, JEMA, and JOFEMAR and represents a balanced union, capable of including each and every element in the value chain of the end product. They will all work together with the subcontracted research bodies (INSIA, TECNALIA and CEIT), integrating a solid development team with extensive experience in R+D+I projects, both in Spain and abroad.



FCC Environment is the business area of the FCC Group that provides environmental services to 53 million people in approximately 5,000 cities in 13 countries, ranging from end-to-end management of municipal and industrial waste through the full range of municipal services (waste collection, street cleaning, green area maintenance, etc.) to restoration of contaminated soil.

We process close to 20 million tons of waste per year in over 200 recycling and treatment plants, using the full range of technologies, from mechanical and biological treatment to the most advanced energy-from-waste solutions.

FCC Environment treats waste as a resource, reusing and recycling as much as possible and recovering energy from the remainder.



### The Place

The El Torno wastewater treatment plant in Chiclana de la Frontera (Cádiz)

## FCC Aqualia leas a European project to obtain biofuel

### from wastewater treatment

The aim of the project is to apply research to reduce energy dependency, obtain value from wastewater and find new sources of alternative energy sources.

FCC Aqualia, the FCC subsidiary engaging in end-to-end water management, is leading the All-gas project that will make it possible to obtain biofuel from the wastewater treatment process. The project has a 12 million euro budget and is part of the European Union (EU) R+D+i initiatives. Under the leadership of FCC Aqualia, other research companies from Germany, the United Kingdom, Holland, Austria and Turkey are also participating in the project.

se focusing mainly on research and the remaining three years on production. The El Torno wastewater treatment plant (WWTP) in Chiclana de la Frontera (Cádiz) features the essential installations for the first phase. In the first phase, two ponds with an algae collection system and ancillary facilities have been installed at the adjacent mu-



With a 12 million euros budget, the project is part of the European Union's (EU) R+D+i initiatives

The All-gas project is in keeping with the EU's commitment to research in order to find new sources of clean energy and, as such, the EU is contributing more than 7 million euros for its funding, reflecting European efforts to reduce dependency on fossil fuels. The goal is to have renewable energies account for 20% of the energy produced in Europe by the year 2020.

In practice, the project is based on taking advantage of wastewater for the cultivation of microalgae and its subsequent conversion in products such as biodiesel to produce energy. It is to be developed over a five-year period with the first two-year pha-





nicipal salt marshes. In the second phase, a 10 hectare industrial plant is to be built for algae cultivation.

The All-gas project offers several advantages and innovations. The project involves the cultivation of microalgae, a rapid growth crop, and the simultaneous elimination of

nutrients from wastewater and the collection and processing of the biomass for oil and other chemical extractions. < It is the first time that a project of these characteristics is developed at a large scale (10 hectares of crops). It is expected that the biofuel



### Tratamiento de aguas residuales con tecnología analítica



IBM Research y Aqualia han desarrollado una solución para reducir el consumo de energía y maximizar los recursos recuperados durante el tratamiento de aguas residuales. Se trata de un sistema cognitivo que consolida datos de numerosas fuentes y sensores a fin de predecir el comportamiento dinámico de este proceso.



#### Resultados prometedores

El proyecto se ha puesto en marcha en una estación de depuración de Lleida con una capacidad de 96.000 metros cúbicos/día.



de residuos







Un 13,5% menos de electricidad

Un 14% menos de productos químicos Mejoras de hasta un 20% en eliminación de nitrógeno



With the production obtained from the cultivation of microalgae in a 10-hectare area, it will be possible to cover the annual consumption of a fleet of 400 vehicles

"



produced in this space will be sufficient to cover the annual consumption of a fleet of 400 vehicles.

Moreover, the technology makes it possible to obtain biofuels such as biodiesel, biogas, or biomass efficiently without the need for cultivating large areas and, accordingly, this would also prevent an increase in the price of food products.









Read pdf



Watch video





The project includes designing, financing and building a recycling plant and an energy-from-waste facility in Millerhill (Midlothian), south of Edinburgh. The 25-year contract runs from the facility start up, around Spring of 2019.

FCC Medio Ambiente, through its subsidiary FCC Environment UK, has been awarded the Zero Waste: Edinburgh and Midlothian contract under which the company will manage and process up to 155,000 tons per year of residual waste from the City of Edinburgh Council and Midlothian Council. The contract represents a backlog of approximately 511 million euro (£450 million). Funds invested ascend to 161 million euro (£142.1 million), financed by the provision of equity by FCC and external off balance sheet debt. FCC will design, finance, build and operate a new recycling and energy-from-waste plant in Millerhill (Midlothian), on the outs-





In the photo, signing the contract with the Edimburgh and Midlothian authorities, seated from left to right: Paul Taylor, CEO of FCC Environment, John Blair, mayor of Edimburgh, Standing, from left to right Vicente Orts, CFO of FCC Environment; David Lyon, head of Environment at Edimburgh City Council; Carlos Afonso, Corporate Development and Concession director at FCC Medio Ambiente Internacional; and, Tomás Núñez, deputy director of FCC Medio Ambiente Internacional.



These installations will process close to 135,000 tons of waste from Edinburgh and from the neighbouring Midlothian Council, together with an additional 20,000 tons per year of commercial and industrial waste

"

kirts of Edinburgh. The contract provides for a 30-month construction period ending in the Spring of 2019, after which the facility will be operated for 25 years.

These installations will process close to 135,000 tons of waste from Edinburgh, the capital of Scotland, and from the neighbouring Midlothian Council, together with an additional 20,000 tons per year of commercial and industrial waste. Generating energy from the waste will produce sufficient electricity to power close to 27,000 homes, and the facility has also the potential for feeding the local district heating grid. The waste will first be processed to recover and separate ferrous metals, primarily iron, and non-ferrous metals, such as aluminium and copper.

The plant will create up to 40 jobs once it comes into operation, and is expected to employ between 300 and 350 people during construction.

After signing the contract with the Edinburgh and Midlothian authorities, FCC Environment UK CEO, Paul Taylor, stated that "the Millerhill recycling and energy recovery facility will play a decisive role in increasing the rate of recycling and reducing the amount of waste from Edinburgh and Midlothian that is disposed of in landfills; it also represents a major boost for the Scottish Government's Zero Waste plan."

Carlos Afonso, director of Corporate Development and Concessions at FCC Environment International, said that, "the project is another example of the wide range of development strategies through which

FCC can deliver capital-intensive facilities that benefit the local communities."

Antonio Alfonso, managing director, head of FCC Environment International, alleged that "the Edinburgh and Midlothian contract represents another step in FCC's growth as a global partner to municipalities and authorities wishing to address environmental challenges and achieve the European Circular Economy goals. It also expands our presence in the United Kingdom, where we have been delivering services since 1989, and proves our ability to provide effective energy-from-waste solutions under a public-private partnership approach."

In the photo, the FCC team that participated in the project. Seated from left to right: Vicente Orts, Carlos Afonso, Paul Taylor and Tomás Núñez; standing from left to right: Miguel Ángel Parras, Juan Troyano, Agustín Serrano, Andy Smith, Carol Nunn, Frazer Peavoy, Peter McHenry, Dan Murphy and Tim Gill.





Generating energy from the waste will produce sufficient electricity to power close to 27,000 homes The contract further enhances FCC's international footprint, as it provides environmental services in cities and towns throughout the world. The Group currently operates energy-from-waste facilities in a number of counties in the United Kingdom (Buckinghamshire, Lincolnshire, Kent, Nottinghamshire and Worcestershire - the latter under construction -) as well as Austria and Spain.





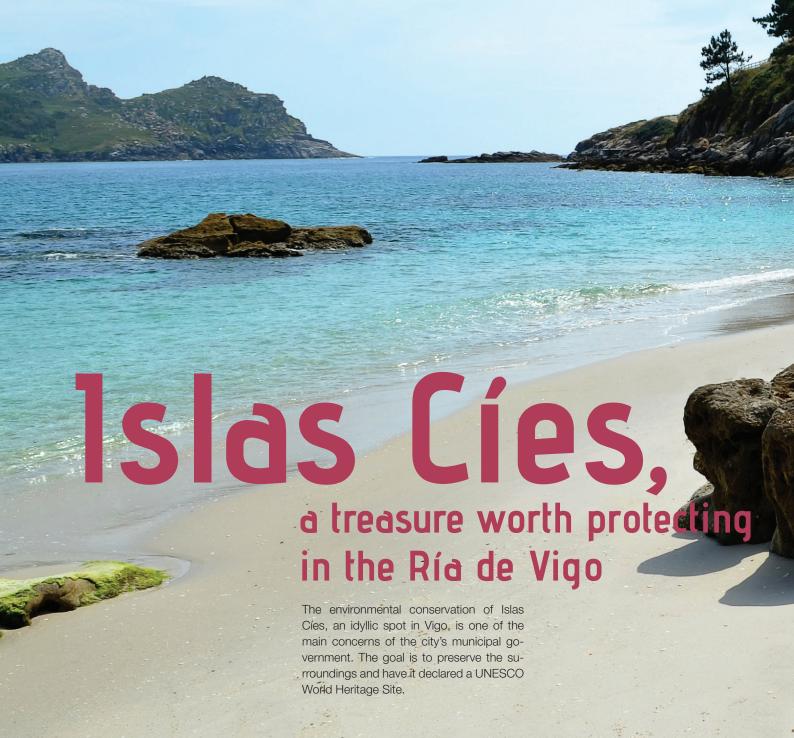




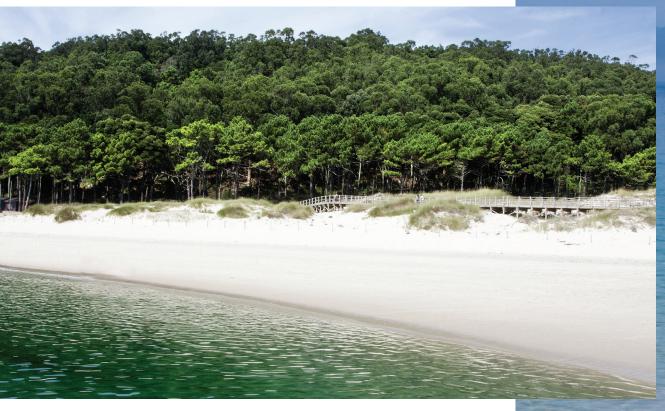














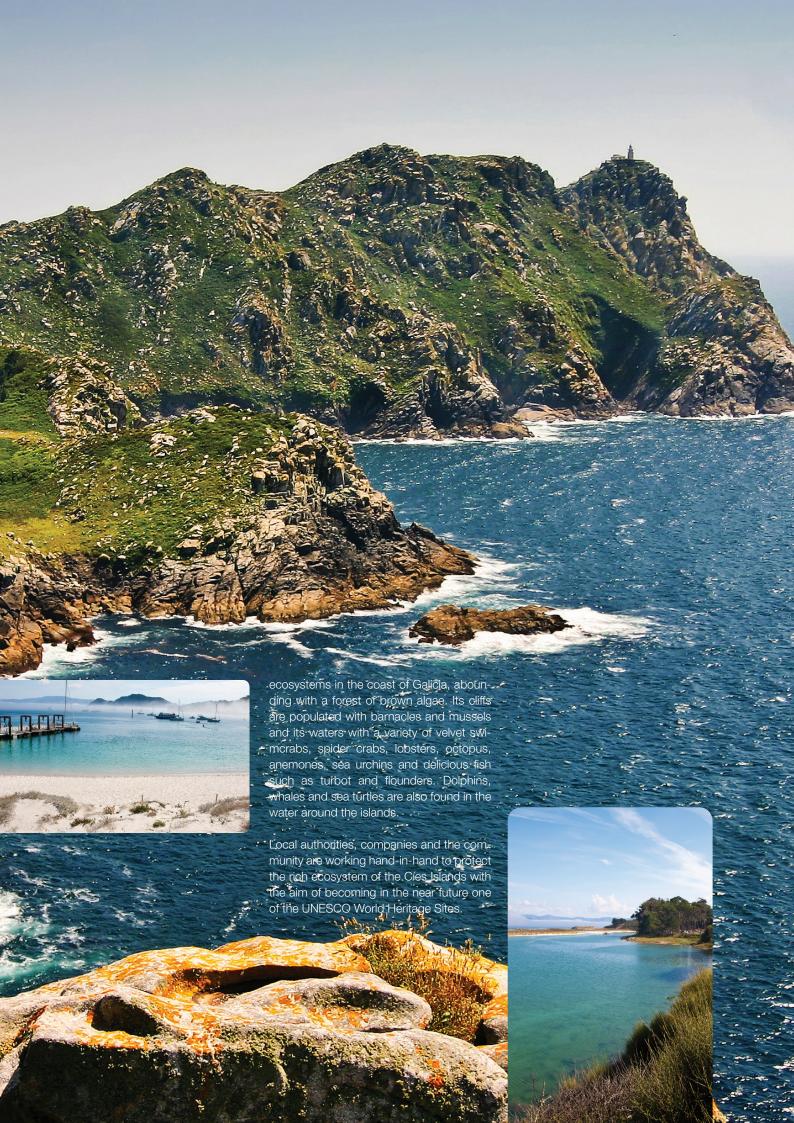
Monte Agudo, O Faro and San Martiño are the names of the three islands of the Cíes archipelago, one of the most beautiful spots in Spain. Cíes, declared a National Maritime-Land Park in 1980 and part of the National Atlantic Islands Park of Galicia, created in 2002, is part of the municipality of Vigo and of the Galician Rías Bajas (flooded river valleys) in the province of Pontevedra.

The Islands of the Gods was the name given to by the Romans in our early history; an Olympus of pristine beaches and crystal-clear waters in a natural area that make it a unique observatory of fauna and flora and where all the natural systems of coastal areas and continental platforms of the Euro-Siberian region can be observed.

The southern Island, San Martiño, is slightly separated from the other two. O Faro, in the centre, and Monte Agudo, in the northern part, are permanent connected by a large sandbank, Rodas Beach, one of the key attractions in this enclave. In 2007, the British newspaper, The Guardian, was captivated by Rodas and named it the best beach in the world.

The only way to reach Cíes is by sea. During the summer months and the Easter holidays, several shipping companies at Vigo Harbour have ferries for round-trip visits to the islands. Thanks to these ferries, it is possible to go directly to the islands of Monte Agudo and O Faro, although it is recommended that you book ahead since Cíes allows only 2,200 visitors per day. It is





## Vigo City Council and FCC launch a recycling campaign in Cíes Islands

Through its campaign, "What comes to Cies must return from Cíes". Viao City Council and FCC Medio Ambiente distributed 20.000 recycling bags this summer among visitors to the islands to enable them to sort the waste generated during their stay. The goal is to have UNESCO declare this paradise in Galicia a World Heritage Site.

Vigo City Council and FCC Medio Ambiente, the company that has had the waste collection and cleaning contract for the city since 1989 launched the campaign "What comes to Cíes must return from Cíes" the main objective of which is to reduce waste in Cíes Islands and implement and recycling culture and awareness among the visitors to the natural park.



As part of the program, 20,000 recycling bags in different colours (blue, yellow and green) were distributed among those who take the ferry to visit the islands. This enables them to sort waste; paper, plastic containers and glass in the different coloured bags. Upon their return from the Islands, they are able to deposit the waste bags at the containers installed at the Vigo Maritime Station.

FCC Medio Ambiente takes care of the waste from restaurants and camping sites at Cíes where it collects approximately 18 tonnes of waste during July and August. The waste collected just during the weekends totals nearly 1,200 kilos.

Recycling to become a World Heritage Site

Abel Caballero, the mayor of Vigo, said during the presentation of the Cíes recycling campaign that the main objective is that this practice "becomes a habit among all visitors for the maintenance and cleanliness of the natural park. Waste at Cíes poses a danger for the survival of the various

species and disrupts the natural balance".

Caballero said that in the coming months a proposal would be submitted for having the Cíes Islands declared a World Heritage Site by the United Nations Education, Science and Culture Organization (UNESCO). The objective is that recycling, as promoted in the "What comes to Cíes must return from Cíes" campaign, becomes a habit among visitors to the islands.



