

# We are **FCC**

Nº 7



**FCC completes  
sale of a 49% stake  
in Aqualia to IFM  
for 1,024 million  
euros**

The Group implements a  
**Compliance System**  
in the Company





# SUMMARY

 FCC Group

 Business

- Environment
- Water
- Construction

 People

 Responsibility

 Wellness

 Innovation

 Communities

 Communication

 Brief

- Environment
- Construction
- Water

# FCC completes the sale of a 49% minority stake in Aqualia to Australian fund IFM for €1,024 million

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FCC has formally completed the sale of a 49% stake in its Aqualia subsidiary to Australian fund IFM Investors for €1,024 million after receiving the green light from the European Commission (EC) on 22 August, in accordance with the merger regulation, and approval by the Federal Economic Competition Commission of Mexico on 20 September.

Aqualia, as head of FCC's water management area, plans to maintain its current strategy, operations and commercial relations (with public administrations, private customers, suppliers, etc.), while strengthening and developing new markets, benefiting from the active involvement of its new shareholder, the resulting synergies, and the continuity of the company's current management.

Therefore, this operation enhances Aqualia's capacity and is a testimony to the company's track record and a

recognition of its reputation as specialist and expert technology partner for administrations and industry in providing water management services.

This is IFM Investors' first investment in a water management company in continental Europe, and its third globally. The Australian fund has amassed more than 15 years of experience in the sector, having invested in Wyuna Water (Australia) in 2003 and Anglian Water (UK) in 2006.

Accordingly, the new shareholder structure strengthens Aqualia's board of directors, which will be chaired by FCC, composed by seven members; of which four will be designated by FCC and three by IFM.

FCC has used the disposal proceeds mostly to pay down financial debt at the parent by more than

## IFM, an ethical fund managing assets worth \$81.2 billion

IFM Investors is a global investor-owned fund manager which, at 31 August 2018, managed assets worth \$81.2 billion. Established more than 20 years ago, it is owned by 28 Australian pension funds, which manage the savings of 15 million people worldwide.

Its investment teams in Europe, North America and Australia manage institutional strategies in infrastructure (equity and debt), debt investments, listed equities and private equity. IFM Investors has been a signatory to the United Nations-backed Principles for Responsible Investment since 2008. IFM Investors has offices in eight locations: Melbourne, Sydney, New York, London, Berlin, Tokyo, Hong Kong and Seoul.

## About FCC

FCC Group, a subsidiary of investor group CARSO, has evolved over its 100-year history, developing a model predicated on partnerships with public administrations that afford benefits and wellbeing to society at large.

FCC is an international benchmark specialising in environmental services, end-to-end water management and infrastructure. It has operations in over 30 countries.

It has more than 50,000 employees and is a creator of value for society, with a sustainable, and socially, environmentally and financially responsible business model.

debt at the parent by more than EUR 800 million and, coupled with the new funding raised, repay FCC, S.A.'s previous syndicated loan, the remaining of the proceeds from the sale will be used for corporate purposes.

“Aqualia plans to maintain its current strategy, operations and management team. The new situation enhances the company's ability to growth and is a testimony to its track record.”



## About Aqualia

Aqualia is the water management subsidiary of FCC, one of Europe's leading citizen services companies. With around 8,000 employees, it is the fourth-largest investor-owned water company in Europe and among the world's top 10, according to the most recent ranking by Global Water Intelligence (GWI) magazine (November 2017). In 2017, governments evidenced their trust in the company as an expert technology partner by awarding it major contracts in: Abu Rawash (Egypt), Burgos (Spain), Glina (Romania), Arraiján (Panama), Guaymas (Mexico), Sohar (Oman) and Al-Watha (UAE). So far in 2018, the company has renewed several major concessions in Spain, including Mazarrón (Murcia), Tarifa (Cadiz), Herencia (Ciudad Real) and Miajadas (Caceres). It also has plant operation and maintenance (O&M) contracts in La Línea and San Roque (Cadiz), La Rioja, the coast of Gerona, metropolitan Madrid, and towns in Castille-La Mancha. Internationally, it has O&M contracts for plants in Saudi Arabia and the Czech Republic, in addition to the BDP contract for the Arraiján wastewater

treatment plant in Panama and the BOT for the Guaymas seawater desalination plant in Sonoro (Mexico), as well as the water system management contract of Majis (Oman).

It was also voted best company in its sector in Spain and LatAm in 2017 by specialist magazine iAgua, and has been nominated for Water Company of the Year, the most coveted category of the Global Water Awards 2018, established by the prestigious publication Global Water Intelligence (GWI).

It currently provides services to 22.5 million people in 1,100 municipalities in 22 countries: Spain, Italy, Portugal, Czech Republic, Poland, Romania, Montenegro, Bosnia, Mexico, Chile, Uruguay, Algeria, Egypt, United Arab Emirates, Saudi Arabia, Serbia, Tunisia, Qatar, Oman, Colombia, Ecuador and Panama. In 2017, Aqualia reported more than €1,000 million in revenues.

# FCC holds its 2018 Investor Day

in the company of Carlos Slim and the Group's management team



Carlos Slim Helú, the main shareholder of the FCC Group

On 31 July, FCC held its first Investor Day, attended by Carlos Slim Helú, the FCC Group's main shareholder, FCC Chair Esther Alcocer Koplowitz, FCC CEO Pablo Colio Abril and Cementos Portland Valderrivas and Realia CEO Gerardo Kuri Kaufmann. They all spoke at the event, highlighting FCC's positive growth, strength and positioning in Spain and worldwide.

Esther Alcocer Koplowitz inaugurated the proceedings. Carlos Slim then gave a speech outlining the Group's current situation and strategic prospects, and Pablo Colio subsequently overviewed each FCC business area, noting their most significant aspects and key figures. Gerardo Kuri Kaufmann then offered a presentation on Cementos Portland Valderrivas and the Real Estate division.

This major event, pivotal for relations with investors, analysts and the media, was attended by Esther Koplowitz y Romero de Juseu and other members of the Board of Directors, as well as members of the company's executive team, including Agustín García Gila, Chairman of FCC Medio Ambiente; Félix Parrá Mediavilla, managing director of Aqualia; CFO Miguel Martínez Parrá; and company secretary Felipe Bernabé García Pérez.



The principles of the Carso Group adopted at FCC



Key points of Investor Day



Investor Day presentation



From left to right: Gerardo Kuri Kaufmann; Esther Koplowitz y Romero de Juseu; Carlos Slim Helú; Esther Alcocer Koplowitz and Pablo Colio Abril.



# Investor Day

in pictures



# The **FCC Group** implements a **Compliance** system in the Company and reinforces its commitment to **integrity**

The Compliance System of the FCC Group is the model used by the organisation to ensure that all the Group's companies and all its employees behave in accordance with certain principles set out in its Code of Ethics and Conduct, and that the company does not commit any criminal offence. The Model is made up of a set of rules and procedures and bodies responsible for their application.

The high-level body entrusted with the promotion and supervision of the FCC Group's Compliance Model is the Compliance Committee, which is chaired by the corporate Compliance Officer. The figure of the Compliance Officer has recently become very important in the business world, as a result of the reform of the Spanish Criminal Code, which introduces the criminal liability of the individual. Companies may face criminal sanctions if their legal representatives, managers, employees, suppliers or subcontractors commit any crime for the benefit of the company.

The implementation of appropriate procedures and controls to reduce the risk of committing crimes, the development of a culture of zero tolerance for possible legal breaches and the collaboration of the entire organization in the periodic verification that the established controls are adequate and effective, will allow this system to be an attenuating factor in unwanted situations of possible crimes, helping the continuity of the company in the development of its activity and giving employees greater legal certainty in making business decisions.

For this reason, all employees in the organisation are responsible for knowing, complying with and enforcing the Group's code of ethics and conduct, as well as collaborating in

the identification of risks of crime, applying the procedures established in the Compliance Model and verifying compliance with the controls designed to reduce the risks of legal non-compliance.

Specifically, the persons indicated in the organization as being responsible for risk controls will certify, every six months, their compliance through an IT tool implemented by the organization for this purpose.

## **Javier López-Galiacho, Director of Corporate Responsibility and Compliance for the FCC Group**

The FCC Group reminds all its members of everyone's commitment to the application of the highest standards of integrity and ethical and regulatory compliance in their businesses. The FCC Group is and must continue to be synonymous with absolute integrity and the highest level of ethical conduct, fighting corruption in all its manifestations. For this reason, the company, at the proposal of the CEO and with the favourable report of the Appointments and Remuneration Committee at its meeting held on 11 September, the



Javier López-Galiacho.

FCC Group has appointed Javier López-Galiacho, Director of Corporate Responsibility and Compliance for the FCC Group. The main mission of the post will be to implement the FCC Group's Criminal Prevention Model, as Corporate Compliance Officer, combining this work with Corporate Responsibility management. Its functions include the dissemination of the Prevention Model, the identification of risks, the definition and monitoring of the relevant controls and the treatment of complaints and investigations relating to crimes and breaches of the Code of Ethics and Conduct received.

In each of the Group's businesses, the figure of the Business Compliance Officer is established, under the hierarchical dependence of the Board or equivalent decision-making body of the business, and functional of the Corporate Compliance Officer, whose main task is to assist the Corporate Compliance Officer in the implementation of the Compliance Model. Likewise, in order to provide support in matters of Criminal Prevention and Compliance in each business, the Business Compliance Committees have been set up, made up of the Compliance Officer and the Director of Legal Advice and the Human Resources Director of the business itself.

# The Compliance Officers of the business units

## FCC Medio Ambiente



Eva Egido Delgado

The chairman of FCC Medio Ambiente's Business Area, Agustín García Gila, and at the proposal of the Management Committee of the Environmental Services Area, has decided to appoint EVA EGIDO DELGADO, Chief Compliance & Data Protection Officer of the FCC Environmental Services business area.

The main mission of the post will be the development and implementation of the compliance model of the Environmental Services area, as well as the updating and improvement of the data protection system.

Its functions include the dissemination of the prevention model, the identification of risks, the definition and monitoring of the relevant controls and the treatment of complaints and

investigations related to crimes and breaches of the Code of Ethics and Conduct received, as well as contributing to perfecting the data protection systems in accordance with the regulations in force in each country.

Eva holds a degree in Chemical Engineering from the University of Salamanca and a Master's degree in Environmental Engineering and Management from the EOI, and has spent part of her career at Deloitte, joining the FCC Group in 2007 in the team of the Internal Audit Department, from which she joined the Management Systems Department of the Environmental Services area.

## Aqualia



Jesús Ortega

At the proposal of Aqualia's CEO, Félix Parra Mediavilla, the company's Board of Directors has appointed Jesús Ortega as the new Chief Compliance Officer.

The new CCO has a degree in Law from the Complutense University of Madrid and in Journalism from the Carlos III University, with several postgraduate studies such as, among others, Compliance at the Carlos III University of Madrid.

He joined Aqualia in 2007, and is currently in charge of providing legal advice for Europe within Aqualia's Legal Department.

The first task of the new CCO will be to develop and implement Aqualia's Compliance Programme, one of the company's most important priorities for the coming months.

## FCC Construcción



Juan Dezcallar López-Chicheri

Juan Dezcallar López-Chicheri, Compliance Officer of the FCC Construcción Business, has been appointed at the proposal of the FCC Construcción General Management and the FCC Group Compliance Officer.

The main mission of the post will be to monitor and supervise the Criminal Prevention Model, periodically review the map of risks and criminal controls, and propose action plans when non-compliance or ineffectiveness has been detected in the operation of the controls.

Its functions include the dissemination of the Prevention Model, the identification of risks,

the definition and monitoring of the relevant controls and the treatment of complaints and investigations relating to crimes and breaches of the Code of Ethics and Conduct received.

Juan holds a degree in law from the Complutense University of Madrid and a master's degree in foreign trade and international relations, and has spent a large part of his career with the FCC Group.

# FCC Group

## Code of Ethics

Ethics must be present in all the actions and activities of a company, and our Code of Ethics and Conduct is the company's main rule governing relations between FCC employees and between employees and their stakeholders.

At its meeting on 27 February, FCC's Board of Directors approved the new Code of Ethics and Conduct, the purpose of which is to encourage all persons linked to any company in the FCC Group to be guided by behaviour guidelines with the highest level of demand in compliance with laws, regulations, contracts, procedures and ethical principles.

The new Code of Ethics and Conduct, which also incorporates a

redefinition of the values on which FCC's corporate culture is based, will prevail over those internal rules and local codes of conduct that might contradict it, unless they establish more demanding conduct requirements, allowing specific adaptations to the countries in which the FCC Group operates, after consultation with and authorisation from the Group's Compliance Committee.

This Code is binding on all persons related to any FCC Group company, regardless of the type of contract determined by their employment relationship, position or geographical area in which they perform their work.

The FCC Group is promoting training programmes and strengthening

communication systems to publicise the new Code of Ethics and Conduct in order to strengthen employees' personal commitment to the company's ethical compliance system.



Access the new Code of Ethics of the FCC Group

## PRINCIPIOS de actuación del Grupo FCC

### Honestidad y Respeto

- 1 Respetamos la legalidad y los valores éticos.
- 2 Tolerancia cero ante prácticas de soborno y corrupción.
- 3 Actuamos contra el blanqueo de capitales y la financiación de actividades terroristas.
- 4 Protegemos la libre competencia y las buenas prácticas de mercado.
- 5 Nos comportamos de forma ética en el mercado de valores.
- 6 Evitamos los conflictos de interés.

### Rigor y Profesionalidad

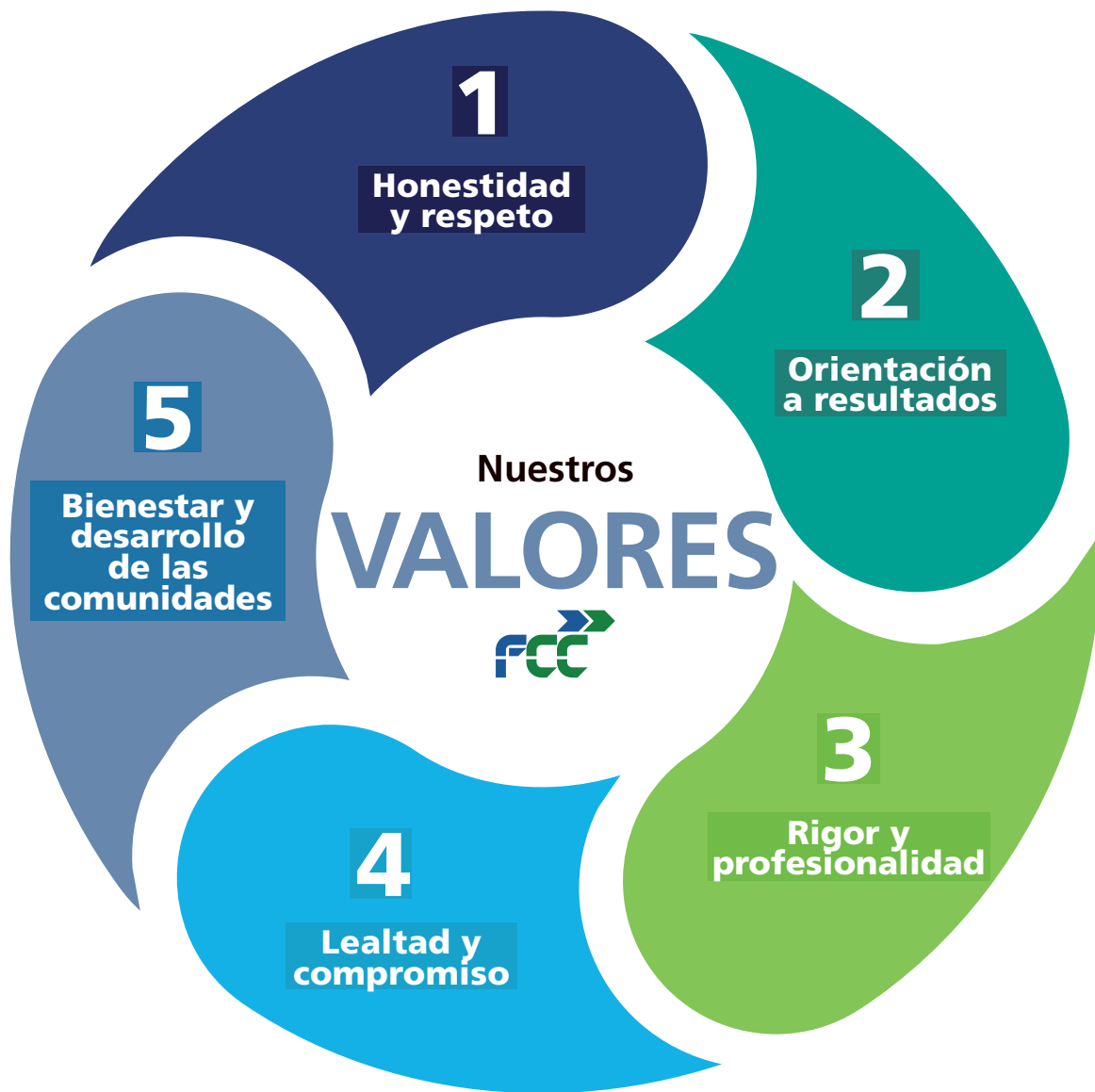
- 7 Rigor en el control, la fiabilidad y la transparencia.
- 8 Protegemos la reputación y la imagen del Grupo.
- 9 Usamos de forma eficiente y segura los medios y los activos de la compañía.
- 10 Vigilamos la propiedad y la confidencialidad de los datos y la información.

### Lealtad y Compromiso

- 11 Nuestros clientes están en el centro.
- 12 La salud y seguridad de las personas son principales.
- 13 Promovemos la diversidad y el trato justo.
- 14 Estamos comprometidos con nuestro entorno.
- 15 Nos relacionamos de forma transparente con la comunidad.
- 16 Extendemos el compromiso a nuestros socios en el negocio.

# Tenemos mucho en común

## Código Ético y de Conducta



**SOMOS** más de 57.000 profesionales operando en más de 40 países.

**COMPARTIMOS** un reto común: mejorar la calidad de vida de los ciudadanos y contribuir al progreso sostenible. **SEGUIMOS** un mismo camino guiados por los principios del Nuevo Código Ético y de Conducta de FCC.

Conoce, respeta, cumple el nuevo Código Ético y de Conducta de FCC.



Consulta el nuevo Código Ético y de Conducta de FCC en [www.fcc.es](http://www.fcc.es)







## More than 30 years committed to the **circular economy** of the city of Girona

FCC Medio Ambiente has been present in the city of Girona for more than 30 uninterrupted years, supporting the City Council in the development of the city's circular economy and actively participating in its leadership, with 49% of selective collection in the ranking of cities in Catalonia.

The main activities carried out in the last four years in Girona, which has almost 100,000 inhabitants, have been the unification of the so-called "ecological islands" with the presence of side loading containers of five fractions (Form, pa-

per, containers, glass and rejected discharges); the implementation of organic fraction collection in the municipality, as well as door-to-door collection of the five fractions also in shops.

At the same time, FCC Medio Ambiente has begun the implementation of door-to-door collection in homes located in low-density neighbourhoods, with selective collection results of 80%. This process, which began in 2017, will continue in 2018 with three new neighbourhoods, one of which will be residential. Pilot tests are cu-

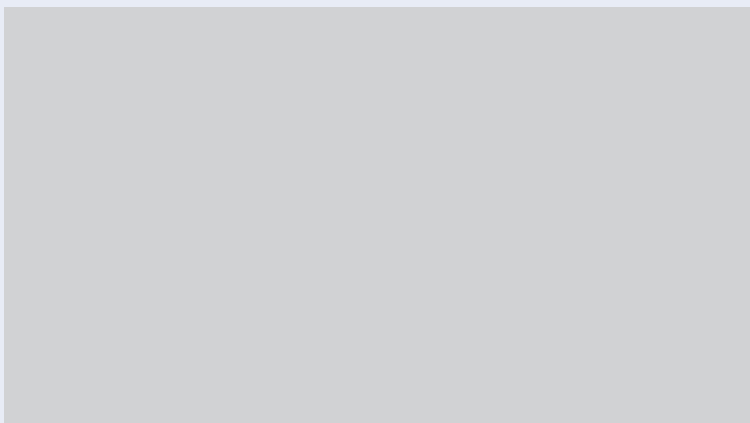


Currently being carried out on “smart” containers with user identification and installation of filling sensors.

All these processes are being carried out with the support of new technologies for identifying users and weighing containers, which leads to better knowledge and monitoring of citizen behaviour and commercial activities.

The final objective of all the actions is to increase the levels of selective collection and get closer to the circular economy objectives set by the European Union for 2020 and 2030.

### FCC services in the city of Girona.





# Inauguration of the desalination plant

that will supply drinking water to the Isle of Djerba in Tunisia.



“ Will supply 50,000 m<sup>3</sup>  
of drinking water to the  
city's population ”



The Isle of Djerba now has a major infrastructure that will supply 50,000 m<sup>3</sup> of potable water per day to the city's inhabitants and which could be increased 75,000 m<sup>3</sup>/day.

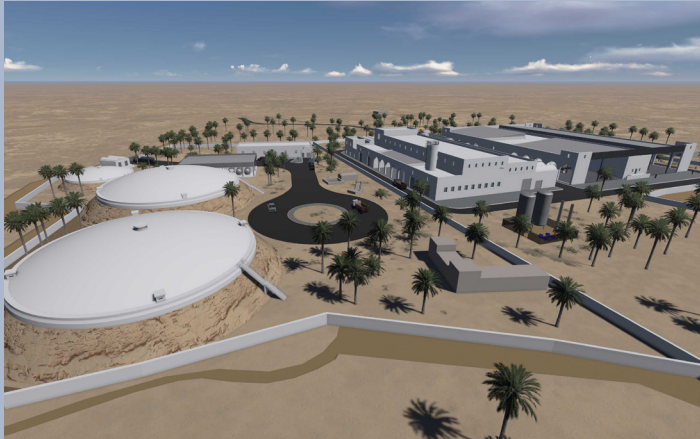
This is one of the most beautiful and largest islands in the whole of North Africa, located in the Gulf of Gabés, in southern Tunisia, and one of the country's main tourist attractions, with an area of 514 square kilometres and a coastline of 125 kilometres, where some 150,000 people live.

The design and construction project, executed 50% by Aqualia and GS Inima, will contribute decisively to the economic, social and environmental development of the island, one of Tunisia's main tourist enclaves.

Once the desalination plant comes into operation, it will be an important factor in the economic, social and environmental development of the island.

The project was awarded by Tunisia's national water distribution utility (SONEDE) and jointly financed by the German Development Bank (KfW) and French Agency for Development (AFD).

Representatives of the Tunisian Government, headed by its prime minister Youssef Chahed, were present at the inauguration and visited the new facilities, which will be the responsibility of Tunisia's national water distribution utility (SONEDE). This



event was also attended by Tunisian political authorities, international organisations involved in financing the project (German Development Bank and French Agency for Development) and the press. Representing Aqualia was Luis de Lope, Director of International Affairs.

The design and construction also included the seawater and effluent capture systems, well-water iron removal plant, product water pumping station and the installation of pipes to connect with the existing distribution network (23.7 kilometres of pipelines). The consortium's contract with SONEDE also contemplates the commissioning of the facilities and their management for a period of one year.



## Aqualia's expertise

Aqualia has an extensive track record in desalination plants in North Africa. In addition to the two major seawater desalination plants (SWDP) built and managed in Algeria, namely SWDP Mostaganem (daily water production of 200,000 m<sup>3</sup>) and SWDP Cap Djinet (100,000 m<sup>3</sup> daily), the SWDP El Alamein (150,000 m<sup>3</sup> daily) is another large desalination plant currently being built in Egypt for the Egyptian Ministry of Defence.



Youssef Chahed, Tunisia's prime minister, drinking water at the delivery point of the desalination plant.



In the photograph, representatives of the German Development Bank (KfW), the French Agency for Development (AFD), Mohamed Daesh, Managing Director of SONEDE (4th on the left) and Luis de Lope (6th on the left), Director of International Affairs at Aqualia, visited the facilities of the new desalination plant.





## FCC Construcción, a global reference in infrastructures

**FCC Construcción is the fourth largest companies in Spain in terms of revenues and among the 15 leading construction companies in Europe. It is a global reference in the design and execution of major infrastructures**

FCC Construcción's proven experience in the management of complex projects, which requires multidisciplinary skills, has enabled it to be awarded important projects. Supported by its design and technology capabilities, it has concentrated on singular civil works contracts, such as those related to transport, and more specifically with the railway sector, where it is executing metro projects in six capitals around the world.

### Riyadh Metro (Saudi Arabia)

One of the most significant works that the company is carrying out internationally is the Riyadh Metro in Saudi Arabia. This is the largest engineering and construction contract in the world developed by a Spanish company. The project has an investment of 6,070 million euro.

FCC is facing the challenge of designing and building the world's largest underground, with 175 kilometres and lines 4, 5 and 6. It will have 25 stations; 64.5 kilometres of underground tracks; 33 kilometres of viaducts; 22 kilometres of underground tracks and 9 kilometres of surface tracks.

### Red Line of the Doha Metro (Qatar)

Also in the Middle East, FCC Construcción is developing the Doha Metro Red Line. The project, called Red Line South Elevated & At Grade, consisted of the construction of a 6.9-kilometre viaduct (mostly built using the precast segments and single-beam system) and three elevated stations of approximately 12,000 square metres each. In addition to the metro works, a one-kilometre-long underpass has been built for the Doha-Al Wakra mo-

torway. This is FCC's first major project in this Emirate. It should be noted that the company recently obtained the first Taking Over certificates for the Doha Metro project, corresponding to two of the three elevated stations, Economic Zone and Al Wakra.





### Line 2 of Panama Metro

Another noteworthy project FCC is currently carrying out is Line 2 of the Panama Metro, the second metro in Central America. The project, which will benefit half a million people, will have 16 stations and a length of 21 kilometres.

Each train on this line, which will have the capacity to transport 1,000 people, has been manufactured using state-of-the-art technology and equipped with internal closed-circuit television (CCTV) came-

ras, a video-surveillance technology designed to monitor users' activities.

The project began in October 2015 and has generated more than 5,300 direct and indirect jobs, of which 40% are local. This infrastructure, when fully operational, scheduled for April 2019, will benefit more than 500,000 Panamanians living in the eastern sector of the capital. Currently, the work is 82% complete.

### Lima Metro (Peru)

In America, FCC is also building line 2 of the Lima Metro and a section of line 2. The contract also contemplates the design, funding, operations and maintenance. The total sum of this project is 3.9 billion euros.

Line 2 will be 35 kilometres long and will cover the East-West axis of Lima. Once in operation, its 35 stations will serve more than 600,000 people a day. On the other hand, the branch of Line 4, which will connect the Peruvian capital with the airport, will run along 8 kilometres of tunnel.



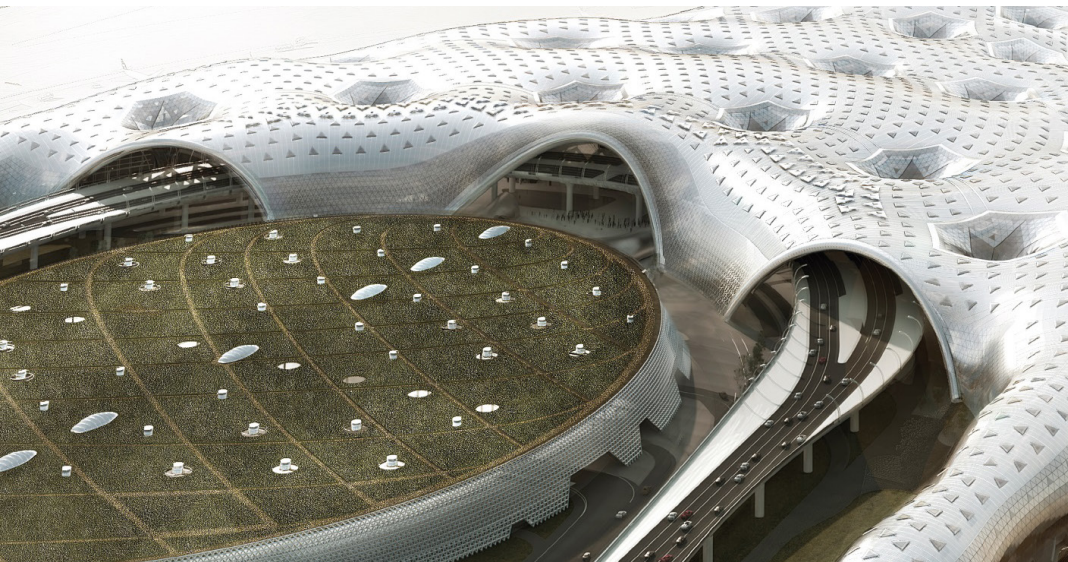
### Romania

In Romania, a relevant contract is the refurbishment of three railway sections in Transylvania that form part of the project to refurbish and revamp more than 121 kilometres of railway line in Corridor IV Pan-European transport corridor that crosses Romania. These awarded sections follow the other two that FCC Construcción is currently building: Sighisoara-Atel and Atel-Micasasa. Furthermore, in this country it is building Line 5 of the Bucharest Metro, 6.1 kilometres long, nine stations and a branch of almost one kilometre long that connects with another station, where the line's garages are also housed.

It should also be mentioned that in Romania, the company is in charge of upgrading and extending the Glina treatment plant in Bucharest (Romania). This project, the largest public contract in the sector tendered in Europe, will serve 2.4 million inhabitants.

The execution of the works of extension and improvement of the treatment plant is a great technical challenge, as they will be carried out while the current facilities are still in operation.





### New airport terminal in Mexico City

In the international infrastructure area, some of the airport works awarded to FCC are worth mentioning. The consortium of which FCC forms part is building the new terminal at Mexico City airport, which will become the second airport in execution worldwide and one of the largest infrastructure projects in Latin America.

The airport's design is innovative and complex and will require the application of the latest technology and the latest advances in engineering for its planning and construction. The new terminal of the future airport will have an area of approximately 743,000 square meters distributed in four levels and through which it is estimated that 68 million passengers will pass each year.

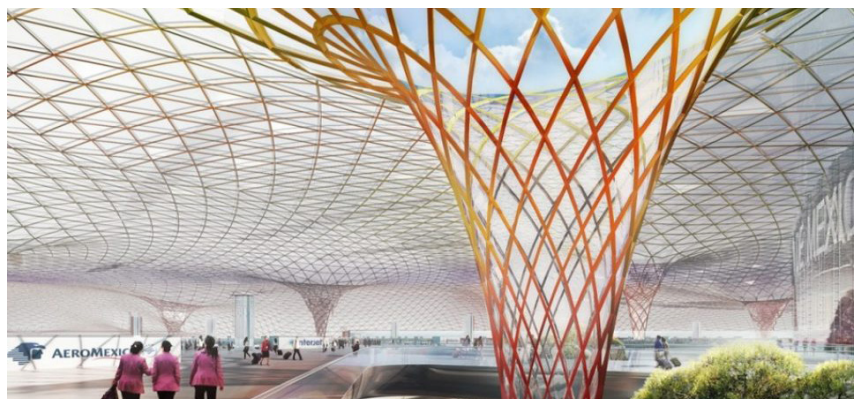
### Toyo Tunnel (Colombia)

FCC won the contract for the design, construction, operation and maintenance of the Toyo tunnel, located between the municipalities of Giraldo and Cañasgordas, some 500 kilometres northwest of the Colombian capital. Once completed, this infrastructure will be the longest of its kind in Colombia.



### The International Jorge Chavez Airport (Peru)

FCC was recently awarded the design and construction contract for the expansion project for the Jorge Chavez international airport in Peru. In this case, the consortium formed by FCC Construcción, Salini Impregilo and Aecom was selected to carry out this major project, which includes an airstrip, a new terminal at Jorge Chávez International Airport and a new control tower, among other facilities. When the project is completed, the new airport infrastructure will be the largest and most modern in the region, thus reinforcing the development and integration of the economic and business sector in Callao (Peru).





### Civil engineering

In terms of civil engineering, FCC is building the Gerald Desmond Bridge in Los Angeles (United States). A project that includes the design, replacement of the old bridge and the construction of a new bridge, with a cable-stayed type, with a main span of 305 metres in length located 61 metres above the Back Channel of Long Beach Harbour.



### El Alamein Desalination Plant (Egypt)

As part of the FCC Group's synergies, the infrastructure area is building the El Alamein desalination plant in Egypt jointly with Aqualia.

Located in the Mediterranean coast, in an area of growing tourist development, the plant will treat 150,000 m<sup>3</sup>/day, thus satisfying the strong water demand in the area.



### Las Playas Corridor (Panama)

Other projects in which FCC is involved abroad are the Las Playas Corridor, Sections I and II (Panama), where FCC Construcción and CICSA have been awarded the contract to widen the Beaches Corridor, Sections I and II, to six lanes.

Section I aims to improve traffic for the 32.7 kilometres affected by the project, which includes design, construction and maintenance, thus improving the interconnection between the completion of the Arraiján-La Chorrera motorway and the new Pan-American highway.

Section II has a length of 21.8 kilometres. The execution of the infrastructure includes 13.7 kilometers corresponding to the Chame-Punta Barco zone variant, in addition to the design of two interchanges to improve the connections between variants.



### Building

In construction, FCC is constructing two buildings for the Dublin Institute of Technology (DIT) higher education centre on the Grangegorman campus in Dublin (Ireland). The Central Quad and East Quad buildings will be constructed in accordance with the Public Private Partnership system. Upon completion, they will provide university services to 10,000 students and the staff of the Grangegorman Centre for Advanced Study.



Our colleagues complete the **Powerade Non Stop Mountain bike**  
770 kilometres adventure:

Madrid-Lisbon in 48 hours and 37 minutes

# Congratulations, champions!



“ This initiative, supported by the FCC Group, reflects the company’s commitment to generating a healthier lifestyle culture. ”

The FCC team made up of Alfonso José Pérez of FCC Medio Ambiente; Javier Ferrero and Sergio Manso of Aqualia; José María Molina of FCC Construcción; and Antonio A. Martínez and Víctor M. Villalba of FCC Corporate Services took part in the spectacular Powerade Non Stop Mountain Bike test. Félix Manso, Sergio’s father, was also present, providing them with all the technical assistance necessary to make this adventure possible.

On Friday 21 September, our colleagues left the municipality of Las Rozas in Madrid, ready to cover 770 kilometres, on paths and tracks, by teams and without compulsory stops, day and night, in a maximum time of 55 hours.

On Sunday 23 they achieved a great victory, arriving in Lisbon in 48 hours and 37 minutes. At 12:37 on that day, the companions of the FCC Group were crossing the finish line of the Park of Nations in the Portuguese capital; it was not a question of winning, but of arriving, and they achieved it.

This year, the event set an absolute record for participation. Until 6 p.m. on Sunday, the finish line in the capital of Lisbon was open to the 834 participants registered for the sixth edition of this mountain biking experience.



Momentos de la prueba Powerade Non Stop.



This initiative, supported by the FCC Group, reflects the company’s commitment to generating a healthier lifestyle culture. Health, safety and well-being at work are of fundamental importance for everyone, and also for the productivity, competitiveness and sustainability of the company.



# Mark Cheetham, climbs Kilimanjaro to support a charity

The regional manager of FCC Environment UK's southern landfill sites climbed the Kilimanjaro in Tanzania to raise funds for the charity Make a Special Kid Smile (MASKS).

On September 8, Mark embarked on a blazing trek through Kilimanjaro, the highest point in Africa at an altitude of about 5,900 meters.

Despite the high altitude and icy temperatures at the summit, Mark was determined to complete the challenge of his 50th birthday that he had agreed to participate in after celebrating it with his friends.

Mark completed the eight-day walk on September 15, reaching the summit after a seven-hour all-night hike. With this feat he has raised around £2,200, double what he initially expected. From this money will benefit the charity MASKS, which helps two special schools in Buckinghamshire improve the lives of more than 300 children with a range of special needs.

Mark, thanks his family, friends and colleagues for all the support received.

## About MASKS

MASKS, founded in May 2005, is a charity that supports the Federation of Special Schools in Aylesbury, Buckinghamshire.

MASKS supports the emotional and physical well-being of the individual child and their families/carers, by using funds raised to provide opportunities otherwise unavailable to them, helping them to realise their potential by giving them social experiences which will build their confidence, support their educational advancement and encourage as much future independence as possible.



## SmVaK's *inspectors*, authentic prescribers of tap water.



The already well-known “Tap Inspector” of SmVaK, Aqualia's subsidiary in the Czech Republic, concluded its fourth year awarding this summer twelve restaurants who offer tap water to clients who request it. In addition to the sticker “We serve tap water”, the businesses were given a jug and glasses for serving tap water, comparable to bottled water thanks to its characteristics and control but, at a much lower cost.

The Company SmVaK launched the “Tap Inspector” project in the summer of 2015. Every year, inspectors organised field trips to check how the situation has evolved in the region. “In past years, 70 businesses were willing to join the project. This year, another 50 were willing to serve tap water, underscoring the fact that serving tap water is becoming a commonplace practice. We find that less and less owners reject providing this service to clients since the argument that this may reduce revenues is, from our standpoint, a false assertion. When I go out to drink beer or wine with my friends, I'm will not be drinking water instead. The idea is to offer new alternatives and services rather than eliminating existing ones”, according to Anatol Pšenička, Managing Director of SmVaK Ostrava.

The project consists mainly of visits to restaurants by company inspectors who recommend tap water, talking to clients and owners on its consumption and benefits.

With regard to the price of tap water compared to bottled water, in Moravia-Silesia, the region in which SmVaK serves, a litre of tap water costs about 8 Crown cents (equivalent to 0.003 euros), while a bottle of 0.33 litres of non-carbonated water is sold in establishments for about 30 crowns (approximately 1.2 euros).

This year, tap inspectors have been visiting mainly the Frýdek-Místek, Havířov and Hlučín counties as well as municipalities in the Odra river area and in the districts of Bohumín and Karviná. SmVaK will continue with the project in successive years and will continue to develop it.

“ More than 100 establishments in the Moravia-Silesia region in the Czech Republic have been awarded the “Tap Inspector” certificate. ”



The project consists mainly of visits to restaurants. This year, tap inspectors have been visiting mainly the Frýdek-Místek, Havířov and Hlučín counties



**Nuria Gallego**, Technical Director of FCC Industrial, receives the **"Best Energy Engineer"** award granted by AEE Spain Chapter

Nuria Gallego, technical director of FCC Industrial, has received the "Best Energy Engineering" award from the Association of Energy Engineers (AEE Spain Chapter) in recognition of excellence in energy matters for her achievements in developing and promoting sustainable energy and energy efficiency as a professional in the energy sector.

The prizes awarded by this Association are intended to recognize the excellence of the work of professionals, organizations and companies by peers and other professionals in the energy industry.

# Promovemos el trato justo

Código Ético y de Conducta



## Tolerancia cero al acoso

Prohibimos el abuso de autoridad y cualquier tipo de acoso, ya sea físico, psicológico o moral, así como cualquier conducta que pueda generar un entorno de trabajo intimidatorio, ofensivo u hostil para las personas.

Tu colaboración es importante, tú puedes:

- Ayudar a **fomentar** un entorno de trabajo agradable y respetuoso.
- **Exigir** que las decisiones de selección y promoción estén siempre basadas en el **mérito** y en valoraciones de carácter **objetivo** y **transparente**.
- **Denunciar** las situaciones de **acoso laboral** y/o **sexual**.

Comunica las incidencias e irregularidades:

Por formulario electrónico en la Intranet:  
<http://fccone.fcc.es/web/fccone/canal-etico-fcc>



Por correo electrónico:  
[canaletico@fcc.es](mailto:canaletico@fcc.es)  
[denunciaacoso@fcc.es](mailto:denunciaacoso@fcc.es)



Por correo postal:  
Apartado de correos 19312 - 28080  
Madrid, España.



Consulta el nuevo Código Ético y de Conducta de FCC en [www.fcc.es](http://www.fcc.es)





Plan Familia is an orientation programme for people with disabilities. Its main objective is to develop skills and competencies.

## The Construction Division celebrates the **10th anniversary of “Plan Familia”**

**Together with the Adecco Foundation, the Construction area of the FCC Group has helped more than one hundred employees with children with disabilities to strengthen their skills and competencies to improve their employability.**

The Construction area of the FCC Group celebrates the tenth anniversary of the implementation of Plan Familia in its organization. An initiative of the Adecco Foundation, the Company supports this project to help employees who have children with disabilities. Over the past ten years, more than 100 employees of the Construction area of the FCC Group with children with disabilities have benefited from the Plan Familia project and, at present, 28 families are part of this initiative.

Plan Familia is an orientation program for people with disabilities. The programme's main objective is to develop skills and competencies in order to increase their autonomy, which, in turn, promotes their social and labour inclusion in the short, medium or long term. Through Plan Familia, people with disabilities and their families have the support of Adecco's Founda-

tion's experts in disability and social and labour inclusion who are responsible for guiding the beneficiaries and their family so that they can achieve their maximum personal, social and professional development thanks to a personalized and multidisciplinary intervention plan. During these ten



Gustavo García with his son Daniel.

years, six children with disabilities of employees of the Construction area of the FCC Group who participated in Plan Familia have found employment between 2016 and 2017. Likewise, nine participate in personalized employment itineraries.

For Gustavo García, head of administration in central services of FCC Construcción and father of a child with a disability: "Plan Familia is a great support for parents who, as in my case, have a child with a disability. Family Plan allows us to work all the skills and abilities of my son Daniel so that tomorrow he can find a job. But not only that, with Plan Familia I have the peace of mind of being accompanied by professionals who advise me when doubts arise or you need a little push".

#### A commitment to diversity #EnPositivo

In 2008 the FCC Group's Construction area implemented its equality plan, first in the entire construction



Through Plan Familia, disabled people and their families have the support Adecco Foundation's experts in disability and social and labour inclusion.

sector. Since then, the company has launched numerous initiatives in the area of inclusion and diversity of people at risk of exclusion. All these measures have contributed to creating an organisational environment that is respectful of diversity.

In this sense, the celebration of Plan Familia's tenth anniversary is yet another milestone for the FCC Group's Construction area. Since the end of 2017 the company has further strengthened its strategy to make all its employees and stakeholders aware of the great value of the diversity of talents in the company, all with the support of the Adecco Foundation.

Many of the actions that the FCC Group Construction area has carried out in terms of diversity during this last year have been channelled through the La Diversidad Suma project, whose details and actions that make it up can also be found on the website: [www.enpositivofcc.com](http://www.enpositivofcc.com).



### The video on the 10th anniversary of Plan Familia is available in FCC Construcción YouTube channel.



In order to commemorate these ten years of Plan Familia, three videos have been produced that allow us to get a closer look at the lives of Daniel, Diego and Ayman, children of employees in the FCC Group's Construction area and beneficiaries of Plan Familia. The videos can be viewed on the website [www.enpositivofcc.com/planfamilia.html](http://www.enpositivofcc.com/planfamilia.html)





Shannon McCarthy, Secretary General of IDA (International Desalination Association), handed the prize to Félix Parra, CEO of Aqualia.

## Aqualia is recognized by the **International Desalination Association (IDA)** for its leadership in water reuse

Aqualia wins the “IDA Exceptional Utility Leader in Water Reuse and Conservation Award” in recognition for its outstanding management of public and private services that have successfully implemented innovative water reuse and conservation projects.

Shannon McCarthy, Secretary General of the International Desalination Association (IDA), expressed his thanks to Felix Parra for the “Aqualia’s incredible work” during the meeting that both have held today at the company’s headquarters in Madrid. In a subsequent gathering, in which some of the company’s directors have also participated, issues such as the upcoming challenges of the

water management sector, innovation, and the next congresses that the IDA will organize in 2019 have been discussed.

This award recognises the company’s extensive experience in water reuse and conservation. Since 2009, and in collaboration with more than 40 international research centres, Aqualia has implemented more than 30 R&D projects, which have produced 11 patents, in fields such as the circular economy and the reuse of water and energy.

Water reuse is one of the pillars of Aqualia’s circular economy commitment, but not exclusively. During 2017, nearly 20 Aqualia projects were

breaking new ground in biofuels, low energy desalination, smart metering and data analytics. These initiatives, which represent a great advance for the water sector and for citizens, demonstrate Aqualia’s commitment to achieving more sustainable development from a social, economic and environmental point of view.

## FCC joins the Integra Foundation campaign



# “Por una segunda oportunidad”

At FCC, and in line with our commitment to socially responsible employment and the inclusion in the labour market of people with disabilities or at risk of social exclusion, we would like to share the Integra Foundation’s “For a second chance” campaign, the aim of which is to give visibility to the work of this organisation, which supports socially excluded and disabled people so that they can take charge of their lives through labour insertion.

The campaign contains four videos starring real people reintegrated into society, a former prisoner, a woman victim of gender violence, a homeless person and a disabled person, who hear their story for the first time through the testimonies of their closest environment. In all cases, family members, colleagues or friends tell how having a decent job has enabled them to overcome their difficult situations and regain their independence and self-esteem.

FCC currently has a collaboration agreement with the Integra Foundation for the training and labour insertion of groups at risk of social exclusion. With the maximum invol-

vement of the group and all areas, those responsible for Human Resources and Equality work continuously to integrate this group into the world of work and get involved in the causes that concern the communities where the Citizen Services Group operates. Some of the groups benefited are women victims of gender violence, people with disabilities, women who live in situations of social exclusion and/or trafficking in women or young people and adults in situations of social disadvantage.

In addition, FCC, in accordance with its equality and diversity policy, promotes and drives actions aimed at fostering equality and implements labour practices to ensure that no member of staff receives unfavourable treatment due to their different abilities or for any other unjustified reason unrelated to their skills, knowledge and professional performance.





# FCC Employees wholeheartedly

## participated in the Carrera Popular del Corazón

The Spanish Society of Cardiology and the Spanish Heart Foundation have organized, in Madrid, the IX Carrera Popular del Corazón (Popular Heart Race). More than 4,000 people took part in the event, with the aim of promoting physical exercise to achieve better cardiovascular health.

FCC acquired 100 numbers so that FCC employees could participate in this popular race that transmits values of solidarity, companionship and sport to organisations. Once again this year, the participation of FCC employees has been a success, and they have not missed this important sporting event.

The aim of this race is to promote the practice of physical activity

among the population, from the youngest to the oldest, and to enjoy a festive and family day in which sport is the protagonist, instilling the importance of acquiring healthy lifestyle habits in order to improve people's physical condition.

The money raised in this race is earmarked for promoting cardiovascular research and to generate campaigns to teach good healthy habits.

Before starting the 4.5 km walk, the Olympic runner and ambassador of the 'Late Madrid' campaign, Chema Martínez, yesterday made a symbolic race **'#in less than 10 minutes'** from Plaza de España to the start of the race where he gave a defibrillator to the SAMUR team

to raise awareness and explain that 10 minutes "is the maximum time that a person's heart can be at a stop without suffering irreversible damage" so "it is important to know how to react".

The Spanish Heart Foundation (FEC) and the Philips Foundation took advantage of the day to present the song 'Move your heart', composed by DJ Carlos Jean for the campaign 'Late Madrid', which helps to apply the proper rhythm of compressions in case of a cardiac arrest (100-120 per minute).



Carrera Popular  
del Corazón

[www.carrerapopulardelcorazon.com](http://www.carrerapopulardelcorazon.com)

### Beatriz del Castillo

"The truth is that we had a great time in the race, we did the 4.5 km walk, the site was fantastic and I think it is a very good way to instil the importance of health in children through the participation of the whole family.

Many thanks for providing us this experience!"



### Maria Rosario Serrano Serrano

"My experience in the Heart Race can be rated at 10. They gave us a lot of information: to teach us how to eat healthy, information to do sports with the family as a healthy and fun option, a shopping guide for a healthy diet. And, at the end of the tour, we were treated to bread, potatoes, drinks, etc., all healthy, very healthy. You can't ask for more! Many thanks to FCC for their collaboration in such a healthy cause. Greetings".



### Bernardo Delgado

"This is the second time I have taken part in the Carrera Popular del Corazón and I will certainly repeat it. The organization of the race and the route, perfect. The activities organized throughout the morning were fun for both the elderly and the youngest... and we left with lots of gifts. Without a doubt, it's a great way to promote sport and a healthy lifestyle, encouragement with these kinds of initiatives. And thank you very much for allowing us to participate in them!"



### Alberto Justel

"Thank you so much for allowing us to participate in this fantastic race. Very well organised, a unique route and a sensational atmosphere have made this an incomparable experience. Thank you very much.

### Patricia Irene Ares

"The truth is that we had a great time; the weather accompanied and the place where the event was held was great. We will certainly see you there in the next event. Thank you very much for offering us this activity."



# Excellence Award in occupational safety and health for management of Aqualia in Abu Dhabi



AqualiaMACE, a company formed by Aqualia and the Emirate company MACE, which currently manages and operates sanitation services in Al Ain and its area of influence in the Emirate of Abu Dhabi, was recently awarded the International Safety Awards for “merit” by the British Safety Council, an organisation with more than 60 years of experience that promotes the correct management of health and safety at work.

The prize was awarded after taking into account the low rate of accidents in the project after reaching six million hours without any accidents at work. Likewise, the innovative campaigns introduced, such as the implementation of the preventive culture project or specific measures to improve road safety, were positively valued. Its performance has been very positively recognised by the client (Abu Dhabi Sewerage Services Company) who, in its last

assessment, rated the health and safety management in the contract as outstanding (9 points out of 10). AqualiaMACE is responsible for the sanitation and purification system in the city of Al Ain, in the eastern part of Abu Dhabi, which supplies and serves more than 650,000 inhabitants. This project was the first contract awarded to a Spanish company in the Emirates and includes the operation and maintenance of a 2,400-kilometre-long wastewater treatment network, 68 wastewater pumping stations and 19 wastewater treatment plants.

In their latest assessment, the Abu Dhabi authorities gave the safety management and company health an “A” rating.

“ In their latest assessment, the Abu Dhabi authorities gave the safety management and company health an “A” rating. ”

## Health Surveillance Campaign 2018

# Take care of yourself!

To mark the end of the summer and the start of the new academic year, we encourage you to check your health on a regular basis as a way to improve the quality of life and control the incidence of risk factors that may affect it in the workplace.

For FCC, caring and protecting workers' health is essential. This is underscored by the fact that the company has its own Medical Department in Madrid which offer employees the possibility of having a specific and individualised medical check-up or examination. These services are provided based on the doctors' criteria and according to the job position. The objective is to assess, control and monitor and to evaluate, control and monitor the state of health.

The Medical Department provides services on a daily basis to employees from all business areas. Its facilities include several general medicine and traumatology consultations, an X-ray room, an operating room, a rehabilitation room and a laboratory.

In addition to medical examinations adapted to the different activities, actions are carried out to promote health in the face of risk factors such as cardiovascular diseases, diabetes, hypertension, etc. and to encourage self-care and healthy eating and physical activity habits.

Check at your workplace.

# Two R&D projects revolutionise wastewater treatment in El Toyo (Almería)

Zouhayr Arbib, Enrique Lara and Raúl Cano, Aqualia's researchers leading the project.



Presentation of the Incover and Biosol project, which was attended by the mayor of the city, Ramón Fernández-Pacheco, together with the Councilor for Municipal Services, Juan José Alonso.

**These projects change the paradigm of the wastewater treatment plant as a major consumer of energy and generator of energy waste, to a source of reusable water and producer of high value resources.**

The current scarcity of water and the growing difficulties in treating waste have led Aqualia, the manager of the Almería Municipal Water Service, to focus a large part of its R&D efforts on finding innovative solutions to address these problems.

An example of this is the recent inauguration of two new projects being developed at the El Toyo wastewater treatment plant (WWTP). These are the Incover project and the Biosol project, both of which use wastewater as a “raw material”. This

inauguration was attended by the mayor of the city, Ramon Fernandez-Pacheco, along with Councillor for Municipal Services, Juan Jose Alonso. The mayor commented that “Almería is at the forefront of efficiency in water management and these two R & D projects do nothing but add in this sense and bring us closer to sustainable management of this resource and thereby close the line of the circular economy.

The main objective of both projects, which complement each other, is



The mayor of Almeria, on the right, commented that “the city is at the forefront of efficiency in water management.



ter management and these two R & D projects do nothing but add in this sense and bring us closer to sustainable management of this resource and thereby close the line of the circular economy.

**Aqualia Researchers**

The Aqualia researchers responsible for these two projects, Zouhayr Arbib, Enrique Lara and Raúl Cano, organised a guided tour for both councillors together with the manager of Almería, José V. Colomina, and the director of the Service, José Antonio Otero.

During the tour they were able to see the different technologies and systems implemented within a circuit in which each phase through which the wastewater passes fulfills a mission:

- Wastewater treatment (Incover).
- Production of biofertilizers (Biosol).
- Reuse of wastewater for irrigation (Incover).

**Lagoon of 3,000 m<sup>2</sup>**

For the first step of the Incover project, a 3,000 m<sup>2</sup> lagoon has been built, called a raceway, where microalgae are grown on an industrial scale and wastewater treatment is carried out thanks to the algae-bacteria symbiosis. This system, in addition to the high efficiency in the elimination of contaminants, represents a saving of 50% in energy and operating costs with respect to conventional treatment plants, due to the contribution of oxygen from the algae.

Next, in the Biosol project, algae extracted from the lagoon are harvested, separating them from the water treated in the lagoon. After dehydrating the algae obtained, this demonstration plant aims to produce a quality algal biofertilizer that gives added value to what would traditionally be managed as waste.

“This process completely changes the paradigm of purification, as it converts conventional purification plants, which are large generators of sludge and waste, into factories that produce valuable resources” - the Aqualia researchers pointed out.

In the next phase, the water is subjected to a system of wetlands (or green filters) and solar disinfection that does not require external consumption of energy or chemical reagents, constituting a substantial change with respect to the conventional treatment carried out in the treatment plants.

Thanks to this disinfection, the resulting water can be reused in agriculture, and the irrigation of golf courses and urban developments.

In order to be able to reuse water for irrigation, however, companies and local councils must first remove nutrients from treated water, such as nitrogen and phosphorus. To achieve this, the last phase the project has the aforementioned method of green filters, which is nothing more than a system of vertical wetlands with research carried out on different types of plants, so as to optimize the recovery of these nutrients from wastewater. The plants act as a natural filter, absorbing the nu-

to transform wastewater from urban agglomerations into an energy source (biomethane) and valuable products such as bioplastics and biofertilizers, while obtaining quality water for reuse in irrigation of agriculture, urbanizations and golf courses, and all from algae-growing photobioreactors.

The mayor of Almeria was very pleased that these two projects are being developed in his city: “Almeria is at the forefront of efficiency in wa-

“ Objectives: transform wastewater from urban agglomerations into an energy source (biomethane) and valuable products such as bioplastics and biofertilizers. ”

trients before the clean water leaves the treatment plant for reuse.

In order to optimise this subsequent irrigation, the Incover project has also implemented an intelligent irrigation system (Smart irrigation) that improves water consumption through local sensors in the plantation and data processing via the internet.

The mayor of Almeria thanked Aqualia for having wagered on this city for the implementation of these projects and praised the investment in innovation that the company is carrying out. “In our province agriculture is one of the greatest exponents of the economy, and from the City Council

we believe that the success of this project can help alleviate the scarcity of water in this sector and promote its development” - added the mayor after having gained in-depth knowledge of these projects.

For his part, Jose V. Colomina indicated that “Aqualia is firmly committed to innovation and efficiency in the search for the best solutions to the new challenges facing the water sector. The company’s mission is a strong commitment to R+D+i that contributes to improving water quality, minimising its environmental impact and optimising technologies and management”.

### About the Incover project

Aqualia is the leading company in the consortium conducting the Incover project, formed by 18 entities from seven European countries in continued collaboration. The project has a budget of 8.4 million euros, of which 70% is subsidised by the European Union through Horizon 2020, its largest research and innovation funding programme, focused on reducing greenhouse gas emissions by 20% by 2020 compared to 1990.

Four demonstration water recovery and treatment plants are being implemented, evaluated and optimised in different locations: Barcelona, Chiclana, Almeria and Leipzig (Germany).

Thanks to the innovative concept and the technologies developed, the Incover project was awarded at the “Water Industry Awards 2018” held in Birmingham (United Kingdom) on 21 May. This award once again highlights the importance of the project in the field of water management and the circular economy at an international level.

### About the Biosol project

The Biosol Water Recycling project has a budget of 2.3 million euros, 50% of which is subsidised by the European Union through the LIFE programme.

Aqualia participates as a partner in the project together with two French companies, Heliopure Technologies and Coldep and the CENTA foundation (Centre for New Water Technologies), located in Carrión de los Céspedes (Seville).



During the tour, they were able to see the different technologies and systems implemented within a circuit where each phase through which wastewater passes fulfils a mission.

# Favorecemos la igualdad y la diversidad

## Código Ético y de Conducta



## No toleramos la discriminación

FCC asegura la igualdad de género en la selección, formación y remuneración de su plantilla y participa en iniciativas para concienciar sobre la importancia de la igualdad.

Tu colaboración es importante:

- Nos **comprometemos** con la igualdad que constituye un eje de crecimiento y progreso social de la filosofía corporativa.
- **Colaboramos** con organizaciones especializadas que asesoran en la gestión del reclutamiento y apoyo a las personas con **discapacidad y/o en riesgo de exclusión social**.
- **Denunciamos** la **discriminación**.

Comunica las incidencias e irregularidades:

Por formulario electrónico en la Intranet:  
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Madrid, España.



Consulta el nuevo Código Ético y de Conducta de FCC en [www.fcc.es](http://www.fcc.es)





# Prefabricados Delta, operating more than 50 years in the sector

ENTREVISTA

Pipes for water pipes with pressure from 300 mm to 3,000 mm diameters.



**Rafael Villa**  
Managing Director of  
Prefabricados Delta

**Prefabricados Delta has been in the world of prefabricated products for more than 50 years. What have been the main changes in the sector and what services does the company offer in the market?**

The company manufactures water pipes with diameters ranging from 300 mm to 3,000 mm, both in reinforced concrete or post-stressed with a steel jacket and in glass fibre reinforced polyester (GRP). It also produces railway sleepers, segments for tunnels and segments and beams for viaducts.

Therefore, the company's activity is totally linked to infrastructures, mainly hydraulic and railway. In both cases, the changes in Spain have been significant. In the case of hydraulic works, the first pipe supplies

made by Prefabricados Delta were intended to guarantee the supply of water to Madrid, fifty years later the main supply infrastructures have already been carried out and in recent years the most important demand for pipes comes from the upgrading of irrigation systems. As to railway works, the company began in the sector supplying the sleepers for the Madrid-Seville high-speed line, participating since then in the development of the Spanish high-speed line and in the renovation of conventional lines.

As far as other products are concerned, the Company has participated significantly in the enlargement of the metro and in the burying of the M-30 in Madrid, with the supply of segments.

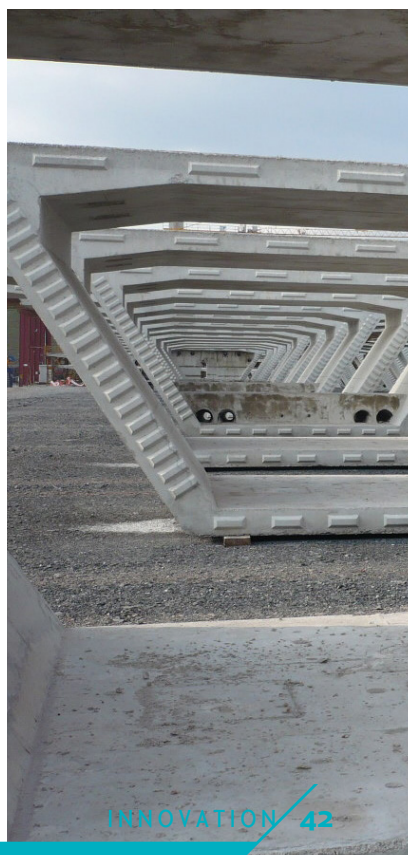
With the fall in investments in infrastructures in Spain, it was necessary to seek, in coordination with the Group, opportunities for collaboration abroad. As a result of this collaboration, the Group participated in the Riyadh Metro project by manufacturing and assembling 12 kilometres of beams and their corresponding prefabricated pre-slabs.

**What progress has been made in the field of innovation and technology?**

We are aware of the impact that innovation and technology have on the future of companies. Throughout our history we have significant examples.

With regard to the manufacture of pipes, this is the only company that produces prefabricated concrete pipes without using moulds, which allows production capacities and performance much higher than those obtained with conventional systems.

In the railway sector, Prefabricados Delta was the first company to



Segments and beams for viaduct

introduce the carousel production system, which was later adopted by most of our competitors.

At present, the most noteworthy aspect is the participation of our company in the development of new types of sleeper for ballastless track. The new designs have quickly replaced the imported solutions used until now.

**Prefabricados Delta currently has two factories, one in Humanes (Madrid) and the other in Puente Genil (Cordoba). For one-off projects do they have provisional factories to support the project?**

Some of the projects already mentioned, such as the Despeñaperros viaducts, the segments for the undergrounding of the M-30 or the beams of the Riyadh Metro, have been carried out by building, in the vicinity of the works, provisional factories specifically designed for these projects. This alternative has enabled us to diversify the business geographically without the limitations associated with a permanent facilities. The ability to compete in the precast concrete market is highly conditioned by the high transport costs and the provisional factories allow us to take advantage of the opportunities that present themselves far from our factories.

**How do you foresee the evolution of the precast sector in Spain in the coming years?**

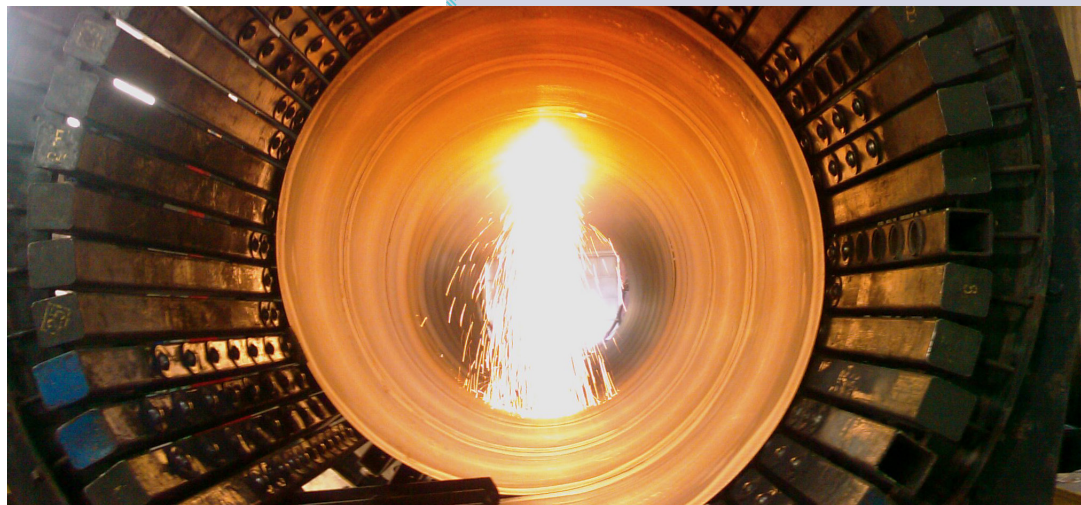
The recent economic crisis has led to the disappearance of a large number of companies in the sector and this represents an opportunity for those that remain.

Prefabricated concrete in Spain is a mature sector which is very segmented by products. Therefore, it is not possible to expect great growth in the medium term. However, in the particular case of hydraulic and railway infrastructures, Spain is a country with permanent needs.

Hydraulic imbalances, both geographical and temporary, together with water scarcity, require investments to optimise the use of this resource.

As far as the railway sector is concerned, Spain has a network of more than 16,000 kilometres of track. After years of concentrating investment in high-speed lines, a very high percentage of conventional lines are in need of renewal and this renewal cannot be postponed indefinitely.

The two sectors represent an opportunity for the future for Prefabricados Delta, although they also pose a challenge given that the demand for pipes and sleepers is increasingly discontinuous over time, combining periods of very low activity with others in which the market demands a large production capacity. This is one of the challenges we will have to face by further increasing the current flexibility.



Sheet metal sleeve machine

## Highlights

In 50 years many important events have taken place for the company. Rafael Villa would highlight those that had to do with the product diversification policy carried out, thanks to which Prefabricados Delta has been able to maintain its profitability despite the economic cycles. This is the case with the incorporation of railway sleepers in 1989, segments for tunnels in 1997, PRFV pipes in 2004, segments for viaducts in 2008 and post-tensioned beams in 2015.

As far as the main references are concerned, there are very outstanding works such as the Despeñaperros viaducts, participation in all the ADIF High Speed lines or the burying of the M-30 and the Riyadh Metro, already mentioned.

As far as hydraulic works are concerned, it has supplied more than two thousand kilometres of large pipelines, including supplies to cities such as Madrid, Badajoz, Lérida and Seville. Significantly, of the 3.7 million hectares of irrigated land in Spain, the company's pipelines are present to a greater or lesser extent in 26% of this area, providing service to more than 120 irrigation communities.

This vehicle is part of the fleet that has been serving FCC Medio Ambiente's top-level operations in Spain over the last few years.

# Touring the United Kingdom with the first all-electric refuse collection vehicle

FCC Environment (the international brand of FCC Medio Ambiente), is touring the United Kingdom with the first the all-electric, zero emissions (ZEV) and nearly noiseless refuse collection vehicle that eliminates the inconveniences for users during the night shift. This is a four-axle waste collection vehicle with plug-in electric engine and, if necessary, an ancillary compressed natural gas (CNG) thermal engine for self-loading. This technology allows a saving of 60% of energy compared

to conventional collection trucks. This vehicle is part of the fleet that has been serving FCC Medio Ambiente's top-level operations in Spain over the last few years.

For many years the company has had a long-term research programme underway for the development of alternative fuel vehicles suitable for providing environmental services. This truck, developed exclusively by FCC Medio Ambiente, is one of the few zero-emission vehicles capa-

ble of carrying out the same waste collection tasks as a conventional diesel-powered vehicle without loss of performance, both in terms of autonomy and power as well as load capacity.

"FCC has been trialling this zero-emissions RCV in Spain for a number of years," said David Simpson, UK Head of Fleet, FCC Environment. "With the backdrop of government pressure to phase out diesel, now is the right time to highlight the potential of electric vehicles for the UK's waste and recycling industry."

This technology addresses the logical concerns about local air quality and the influence on climate change. Road transport accounts for about 22% of greenhouse gas emissions in the United Kingdom. Research indicates that although less than 1 in 20 vehicles on Europe's roads are commercial, they account for almost 20% of greenhouse gas emissions. As to the budget, "the greatest benefits of electric vehicles are to be found in commercial fleets. Switching from diesel to electric vehicles





“The company has had a long-term research programme underway for the development of alternative fuel vehicles”



“FCC Medio Ambiente has been investing in R&D into alternative-powered vehicles for more than 40 years”

would bypass the risk of oil price hikes; while local authorities could charge their fleets from local energy-from-waste facilities – or even solar arrays at their depots”.

David Simpson added: “The market is developing rapidly, and the time when we will have cost parity between conventional and alternative-powered vehicles is drawing ever-closer. Without the financial and environmental cost of running diesel fleets, society could make significant gains within pre-determined timescales. “We as a nation have to look forward and with government support waste can be transported cleaner and efficiently using zero emission vehicles.”

FCC Spain has been investing in R&D into alternative-powered vehicles for more than 40 years and now operates over 1,900 sustainable vehicles in Spain, including 100% electric models, hybrids and natural gas powered vehicles.

Comprising over 10% of the entire of FCC's Spanish fleet, these vehicles are actively lowering emissions and noise in urban areas. These plug-in self-charging electric vehicles leave the base at full load, run fully on electric power while operating in cities and, if necessary, recharge their batteries on the way to discharge at the waste treatment facility.

FCC Spain has an entire range of electric vehicles, from narrow street sweepers to refuse compactors and we hope that they can be introduced in the United Kingdom with the coordinated support of municipal and central governments.

# FCC Austria Abfall Service AG

## in charge of cleaning the A2 highway

**Thanks to its location, the A2 motorway – connecting north and south of Europe – is a popular transfer road for many people.**

With the 377.3 km the “Südbahn” A2 (‘South Motorway’) is longest motorway in Austria. It runs from the outskirts of Vienna south via the cities of Graz and Klagenfurt to the border of Italy at Arnoldstein, where it joins the “Autostrada A23”.

Thanks to its location, the A2 motorway - connecting north and south of Europe - is a popular transfer road for many people.

According to ASFINAG, a publicly – owned corporation that plans, finances,, builds and maintains, and collects tolls for the Austrian highways, more than 26,000 vehicles per day passed the A2 highway in 2016. During the summer holiday season, traffic density increases since the A2 highway is a very popular corridor for Czech, Slovak and Polish tourists to reach the Adriatic Sea.

Such large traffic brings some side effects, among others also in the form of a large amount of waste that rivers and passengers generate during their journey. Only in year 2017 more than 670 tons of the residual waste were left behind, about 236 during the summer months (May-August).

Since 2013, FCC Austria Abfall Service AG has been responsible for waste disposal and cleaning of almost all the service stations on the A2 motorway for ASFINAG. In total, there are 266 x 1,100-litre containers and 30 x 240-litre containers (fire protection containers) provided by FCC Austria.

More and more passengers dispose of their waste at the rest stations of the motorways in Austria. Recent research showed that in 2017 more than 2,000 tons of waste such as construction waste, old tyres, bikes, electrical waste and even refrigerators have been left behind on the rest stations. This uncontrolled disposal of waste is a problem for all motorways in Austria, leading to increased costs for proper sorting and recycling.

FCC waste bins can be found along the A2 motorway, either in smaller parking lots and rest areas or at larger service stations, which will then be transported and treated as a resource for further recycling.



FCC waste bins, your “cleanliness guardian angels” during holiday-season on A2 motorway

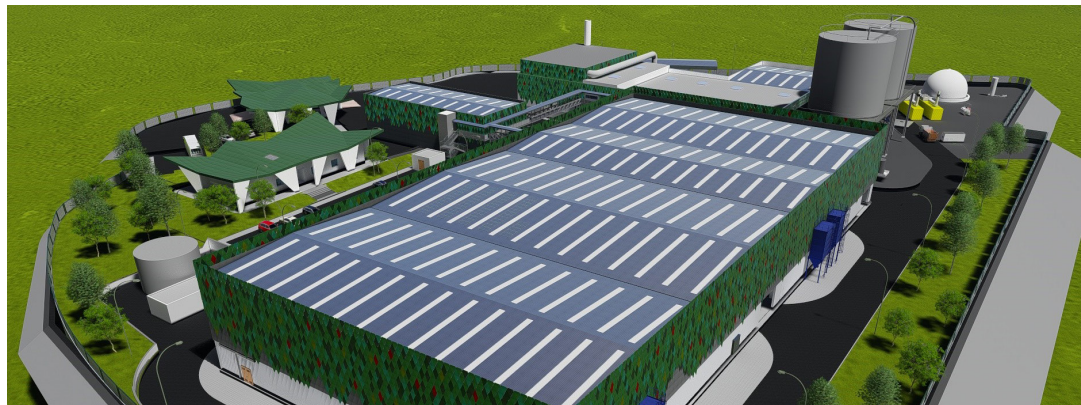
**This contract confirms FCC's commitment to Guipúzcoa after operating 48 years in this region.**

## FCC Environment

awarded the contract for the construction of the second phase of the **Environmental Complex in Guipúzcoa**



José Ignacio Asensio, Chairman of the Waste Treatment Consortium of Guipúzcoa (GHK) and Province Councillor delegate for Environmental Affairs, and Carmelo Aguas, Head of the North Region of FCC Medio Ambiente (the Spanish brand for FCC Environment), have signed the contract for the second phase of the Environmental Complex of Guipúzcoa (CMG-2), awarded to a temporary joint venture led by FCC Medio Ambiente. This contract is proof of FCC's commitment to this region where it has operated over the last 48 years.



The new facility will have two types of plants: a biomethanisation plant and a slag recycling plant for the Incineration of Bottom Ashes (IBA) received from the recycling plant in phase 1 (CMG-1).

This contract involves the construction, commissioning and operation of the CMG-2 over a 20-year period, with a total investment of €32.2 million and a portfolio with a net worth of €92 million.

The new facility will have two types of plants: a biomethanisation plant and a slag recycling plant for the Incineration Bottom Ashes (IBA) received from the recycling plant in phase 1 (CMG-1). The works are expected to start in October and the installation is expected to be commissioned by the summer of 2019.

The biomethanisation plant will treat the bio-waste fraction collected from the Historical Region of Guipúzcoa, sorted at each home, with a capacity for up to 50,000 t/year, and a possible expansion of an additional 20,000 t/year. This plant performs a fully automated mechanical pre-treatment, in which materials are recovered and waste is removed, with a dry anaerobic digestion process that allows the full hygienisation of the bio-waste and the generation of biogas for the production of electricity.

With this treatment process, expected standard electricity generation will exceed 15 million kWh/year, corresponding to the annual electricity required for more than 1,300 households. This energy will be used for self-consumption in the company's facilities and surplus energy will be injected into the grid of the electric utility.

The digested materials generated at the facility will be recycled at an adjoining facility with vermi-composting procedures to manufacture compost. The IBA treatment and maturing plant will have a capacity for 52,000 t/year and will treat the wet bottom ashes received from CMG-1. The process will be based on a fully automated mechanical treatment, in which the materials are classified with sorting sieves and recycled, and later on is matured. Matured materials will meet the specifications set forth in the corresponding laws for their use as construction aggregates, to manufacture concrete and raw materials in cement production plants.

The commissioning of these facilities will also have a direct impact on the selective collection and recycling

percentages, thanks to the recovery of materials at the mechanical-biological treatment plant and to the manufacturing of recycled aggregates at the bottom ashes treatment plant described in the project.

The new infrastructures will allow the Province to keep the same treatment fees, and improve the waste recycling and reuse indices by seven to eight points in Guipúzcoa, which will reach 60%, in line with the figures of the leading countries in Europe and clearly exceeding the 50% objective set forth for Europe by 2020.

The CMG-2 will be located in the Es-kuzaitzeta industrial estate, in the Zubieta area, on a 31,988m<sup>2</sup> plot. Its two plants (biomethanization and slag), together with the mechanical biological treatment (TMB) and energy recovery (PVE) of the CMG-1, constitute the basic closure system for the treatment of Guipúzcoa waste.

# Connect 365

## An intelligent solution, a new way of working

**The workplace is changing. FCC is making strides in the digital world, incorporating everyday tools to facilitate the way we work according to our needs, applying smart solutions to improve collaboration, creativity and productivity.**

The digital transformation is one of the biggest revolutions in recent years. FCC has to adapt to change because technological innovation is here to stay.

FCC continues to make progress and is committed to new ways of working aimed at the whole organisation, with the aim of improving collaboration and the ability to share information, as well as the creativity and productivity of employees.

### Connect Programme

Under the umbrella of the Connect Programme, FCC will encompass all projects relating to the development, implementation and use of new technologies aimed at improving the efficiency of the company's processes.

For this reason, the time has come for FCC to implement Microsoft Office365, new technological work tools that will boost communication and encourage collaboration between teams and professionals from the Citizen Services Group from any device and in real time.

Microsoft Office365 will provide a digital workplace with more secure, flexible and easy-to-use tools for managing documents and workflows in the cloud. A change that involves the entire company and that will submerge it in an environment full of possibilities that will improve everyone's way of working, especially those with great geographical mobility and who need to have tools adapted to their needs, without barriers and without limitations, increasing productivity and optimizing processes by applying intelligence.

“Microsoft Office365 will provide a digital workplace with more secure, flexible, and easy-to-use tools”



The Company will be taking this step in the coming months with effort, training and communication in order to make implementation and adoption easy, effective and, above all, user-friendly to all FCC Group employees.

### Fundamental pillars of the Microsoft 365 platform

With Microsoft Office365 companies foster the pride of belonging to an organization; create a culture of community and commitment to the company to encourage collaboration; enhance the professional capabilities of each employee; encourage the use of digital tools and intelligent processes to automate and streamline business processes; ensure the best experience in real time; and of course, minimize risk and costs, while ensuring protec-

tion and compliance with standards such as the General Data Protection Regulations (GDPR). These are the fundamental pillars of the platform: Collaboration: companies have several tools at their fingertips, such as Microsoft Teams, so that employees can collaborate, share and communicate from anywhere, moving the office to wherever they are.

Flexibility: thanks to the possibility of accessing these tools through any device, whether on the desktop, laptop or mobile and from any platform.

Security: so that it doesn't matter if a worker connects from a business network or from the Internet connection at home. An environment that is always secure, up-to-date and in compliance with European data protection regulations, GDPR.



## Bilbao's city council renews its fleet, replacing it with the latest generation vehicles and machinery.

FCC Medio Ambiente renews up to 80% of the cleaning and collection service fleet for Bilbao city council. The new fleet is more modern, quieter, reduces water consumption and is more environmentally friendly. The new fleet includes 63 electric vehicles, accounting for 25% of the total, in an important step towards electric-powered mobility in the city's services. All inspection and small-sized vehicles will now be fuelled by petrol or electricity rather than diesel.

## Renewal of the contract of maintenance and conservation of parks, gardens and green areas in the city of Oviedo

Oviedo City Council has renewed its confidence in FCC Medio Ambiente and has awarded a joint venture led by FCC the contract for the maintenance and conservation of parks, gardens and green areas, for a period of four years with a possible extension of two years. The total value of the contract before extensions is almost 17 million euro.

FCC has been providing cleaning and maintenance services for green areas, parks and gardens in Oviedo since 2007, covering an area of 250 hectares of parks and green areas and 10,000 alignment trees.



## Foundation laid for the new recycling plant in Houston (U.S.)

FCC Environmental Services has laid the foundation stone for the new recyclables plant in Houston, which will separate and recover all the city's recyclable materials and subsequently market them. The contract was awarded to FCC for 250 million dollars and a term of 15 years, extendable up to a maximum of 20 years.

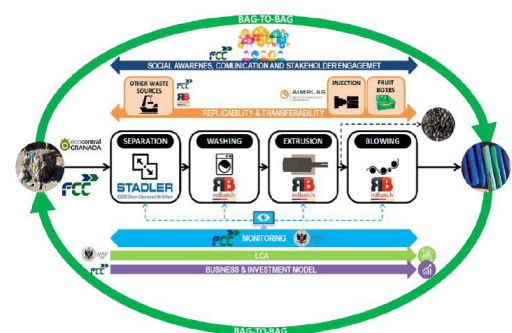
## FCC Medio Ambiente awarded several contracts that strengthen its presence in the province of Huelva

FCC Medio Ambiente has been awarded the street cleaning and waste collection contract in the municipality of Almonte, the collection contract in Cortegana and the street cleaning contract in the municipality of Valverde del Camino, all in the province of Huelva. The sum of these awards represents a total portfolio of 16.37 million euro and reinforces FCC's presence in the province in an outstanding way.



## The LIFE4FILM Project, led by FCC Environment, approved by the LIFE programme of the European Union

The Executive Agency for Small and Medium-sized Enterprises (EASME), responsible for managing the LIFE programme, has approved the LIFE4FILM project (Post-Consumption Film Plastic Recycling from Municipal Solid Waste), coordinated by FCC Medio Ambiente. The aim of this project is to prevent plastic film, also known as low-density polyethylene (LDPE), present in solid urban waste from being sent to landfills or waste-to-energy plants. This action will be rolled out in Granada (Spain), with the implementation of an innovative recycling process at a semi-industrial scale, through a recovery line with a capacity of 10,000 t/year, to be managed by FCC.





## Contract for the refurbishment of the Philosophy Building at the University of Zaragoza

The construction area of the FCC Group was awarded a contract for the refurbishment of the Philosophy building of the University of Zaragoza. The Consortium (FCC Industrial, Copisa, Estructuras Aragón) formed and led by FCC Construcción, will develop the reform project that includes three fundamental interventions: refurbishment of the historic Faculty building; the demolition of the Philology pavilion and its replacement by a new building, and the urbanization of the surroundings.



## Extension and refurbishment of the Santa Bárbara Hospital in Soria

The consortium formed by FCC Construcción and FCC Industrial has been selected for the development of the contract to extend and refurbish the Santa Bárbara hospital in Soria. The project is planned in two stages: in the first, the construction of the extension building will be undertaken.

The consortium formed by **FCC Construcción** and **FCC Industrial e Infraestructuras Energeticas** has started the construction of the new **Campus of Airbus headquarters in Getafe (Madrid)**



## FCC to enlarge "Jorge Chávez" Airport (Peru)

The consortium formed by the companies FCC Construcción, Salini Impregilo and Aecom as designer, has been selected for the development of the design and construction contract for the expansion project of the new international airport "Jorge Chavez" in Lima (Peru). The expansion project of the Jorge Chávez International Airport includes the design, construction of an airstrip, a new terminal of Jorge Chávez International Airport along with its contact and remote platform for aircraft, urbanization works and access to a business complex with new logistics areas and warehouses, parking areas, a building for facilities and power plant, a new control tower and a building for a fire station.

## New training centre for the Company's collaborators in Panama

The construction area of the FCC Group has inaugurated, in La Cantera la Valdeza, located in La Chorrera, the new training centre for FCC employees in Panama, where interested parties can have access to the digital platform "Capacitate para el Empleo" of the Carlos Slim Foundation."



## FCC Construcción obtains the first certificates of completion for the work on the Doha Metro (Qatar)

The company has obtained the first Taking Over certificates for the Doha Metro project corresponding to two of the three elevated stations: the Economic Zone and Al Wakra. The prior approval by the Civil Protection authorities, the external safety audit and the GSAS 4\* Sustainability certificate were required in order to obtain this certificate.





## Aqualia presents in Tokyo the results of the project **Life Memory**



During the event, attended by some 6,000 people from more than 100 countries, Aqualia deployed its most innovative solutions in the reuse and sustainable management of wastewater, in line with its commitment to the circular economy. José Ramón Vázquez Padín, head of the Quality Area of Aqualia's R&D Department, presented the Life Memory project that Aqualia is developing at the WWTP in Alcázar de San Juan (Ciudad Real) in his presentation: "AnMBR Technology: Boosting Circular Economy In Sewage Treatment". After two years of operation on an industrial scale, the viability of transforming wastewater into energy and reused water has been demonstrated, with a positive energy balance. By combining an anaerobic membrane reactor (AnMBR) with ultrafiltration modules, resource recovery has been achieved by transforming the treatment station into a bioenergy and fertigation factory.

## The **"Water Classroom"** or how learn about the water cycle by playing



Discovering the end-to-end water cycle and the work that is carried out to bring us the water we consume are the goals of the Water Classroom that Aqualia, through APEMSA (Aguas del Puerto Empresa Municipal), has set up at the facilities of the Coto de la Isleta Centre for Environmental Education and Nature Activities (CEAAN) in El Puerto de Santa María (Cádiz).

Through games and experiments, young people acquire the necessary knowledge about water and its management, become actively involved in environmental improvement and become aware of the need to take care of water and the planet, promoting a change in attitudes in daily consumption habits.

## Aqualia publishes its **12th Corporate Social Responsibility Report**

The document has been drawn up in accordance with the option of exhaustive compliance with the Global Reporting Initiative's (GRI) Sustainability Reporting Guide, in its GRI Standard 2016 version, and has been verified by an independent external entity (AENOR). The Report is published in Portuguese, as well as in Spanish and English. It has a digital version navigable from iPad and other devices and can be accessed and downloaded directly from the website.

## **375,556** citizens show their commitment to the planet by opting for **Aqualia's e-bill**

With this action, citizens are contributing to sustainable development by reducing paper consumption, CO2 emissions and the energy impact of transport. This initiative underscores Aqualia's contribution to the ODS 12 commitment as part of the [www.compromisoreal.com](http://www.compromisoreal.com) campaign.

#Compromiso Aqualia

Son hechos, no palabras

Con el planeta

12 PRODUCCIÓN Y CONSUMO RESPONSABLES



## **Water quality and customer service, the strong points of Aqualia's service in Santander**

The quality of the water supplied and customer services are two of the strong points of Aqualia's management of the municipal service of Aguas de Santander, according to the conclusions published by the European Benchmarking Cooperation (EBC).

The EBC compares management models, both supply and sanitation, of different companies in the sector at an international level based on predetermined variables and indicators, which in turn gauge the efficiency of one system in comparison with others. Santander's service has reported numerous variables that have generated close to 350 management indicators, among which the quality of the water supplied, energy efficiency and the quality of the service provided to customers stand out.





La gestión del servicio del agua, un bien público y un derecho humano reconocido por la ONU, necesita recursos, especialización, experiencia y colaboración.

Los profesionales de Aqualia, comprometidos con las personas y con su entorno, trabajamos cada día para generar desarrollo y riqueza en los territorios donde confían en nosotros como su compañía del agua.

**Personas que trabajan para personas**



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