Communication Network

News for the people of FCC

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Esther Koplowitz
Merit of Work Medal

The Labour Minister, Fátima Báñez, has granted the award to the company and the Spanish philanthropist.

Esther Koplowitz received the Gold Medal of Merit in Work on 4 November at a ceremony held at the National Library presided over by the Labour Minister, Fátima Báñez, who was accompanied by the Vice-President of the Government, Soraya Sáenz de Santamaría.

The award acknowledges merit for "exemplary conduct to the benefit of society in the course of performing the tasks involved in any type of work, profession or service".

The Vice-Chairwoman of FCC and Chairwoman of the Foundation that bears her name accepted the award "on behalf of the employees at FCC and the parents of children with disabilities, because –she said-- they are an example of unflagging work well done, faith, selflessness and love".

> "The Spanish businesswoman and philanthropist accepted the award "on behalf of the employees at FCC and the parents of children with disabilities, because they are an example of unflagging work well done, faith, selflessness and love"

After several years leading a group that includes some of the most relevant companies in Spain, Esther Koplowitz has acknowledged the need to give back to society part of what she had created. She has done so in particular through the Foundation that bears her name and their work in building and fitting out residences for the underprivileged or those at risk of exclusion, such as the elderly, which are subsequently donated to public administrations.

Fundación Esther Koplowitz has one residence, Nuestra Casa, in Collado Villalba (Madrid); another, la Nostra Casa de Fort Pienc, in the city of Barcelona and a third residence in the city of Valencia, devoted to persons with physical and mental disabilities.

At present, Fundación Esther Koplowitz has significant projects underway, such as the residence and treatment centre for children with cerebral palsy, which will be donated to Fundación Nido upon completion.

These are just a few of the more than two hundred activities performed by the Foundation, an excellent example of which, in the field of research, is the Esther Koplowitz Biological Research Centre (Centro de Investigaciones Biológicas Esther Koplowitz, or CIBEK, in Spanish). In addition to this centre, which diagnoses and treats highly complex diseases at the Clinical Hospital of Barcelona, other initiatives include the CEPRI (a centre specialised in the treatment of autism) in Majadahonda, the Da Vinci robot donated to the Clinical Hospital of Madrid for High Precision Surgery, or over 1,200 scholarships for living expenses for university students lacking resources.

All of these projects are exclusively funded with contributions by Esther Koplowitz, who, through her philanthropy and patronage, has given much more to society than she has received.

GOBIERNO DE ESPAÑA
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Esther Koplowitz at the Doctor Honoris Causa investiture of Gustavo Villapalos

King Juan Carlos University honours professor and director of FCC Group.

Esther Koplowitz, first vice-chairman and core shareholder of FCC, attended the investiture ceremony for Gustavo Villapalos, a director of FCC, and former rector and Minister of Education for the Madrid region, who received an Honorary Degree from King Juan Carlos University.

The event held at the University campus coincided with the start of the academic year. Villapalos is a professor of History of Law and Institutions at the Complutense University of Madrid. He is currently dean of the Law School, and he was rector of the University from 1985 to 1995. That same year he was appointed Minister of Education, Culture and Sport for the Madrid region, a position he held until 2001.

Besides Esther Koplowitz, other leaders in education and business also attended the ceremony, including Esther Alcocer, chairman of the Board of Directors of FCC.

Gustavo Villapalos is also a director of Cementos Portland Valderrivas and a member of the Royal Academy of Jurisprudence and Legislation. He has an honorary degree from several universities including, the University of Lisbon, Paris XIII University, Charles University in Prague, the National University of La Plata (Argentina) and the National Autonomous University of Mexico (UNAM).

Transforma España

FCC supports Action Tank

A Fundación Transforma España initiative

As member of the Advisory Board and sponsor of the Fundación Transforma, FCC is supporting the project managed by the foundation and entitled Action Action Tank for Talent Management.

The platform targets businesses, start-up institutions and individuals who commit to and work in support of talent, and is directed towards the generation of high-impact initiatives whose common goal is the procurement of greater talent which is better suited to the current needs.

Every month the Fundación Transforma España gathers a select group of experts and professionals from different strands of talent management, with the objective of identifying innovative and concrete actions which help generate opportunities in this area, essential for the country's economic and social development.

Esther Koplowitz receives the Conde de Latores award for humanitarian work

The Vice-chairwomen of FCC, Esther Koplowitz, Marchioness of Casa Peñalver, has received the Conde de Latores award for her humanitarian work, awarded by the Cuerpo de la Nobleza del Principado de Asturias (the nobility society of Asturias). In 2013, this award was received by the Spanish Civil Guards.

Manuel Luis Ruíz de Bucesta y Álvarez, Esther Koplowitz and the chairman of the foundation, Francisco de Borbón y Escasany, Duke of Seville.

After a speech by the Chancellor of this society, Manuel Luis Ruíz de Bucesta y Álvarez, the businesswomen and Chairwomen of Esther Koplowitz Foundation, collected the award from the Chairman of the Foundation and Duke of Seville, Francisco de Borbón y Escasany.

The award was granted in recognition of Ms Koplowitz's work for the physically and mentally disabled, the elderly and for science and research, among other causes.

The businesswoman accepted the award on behalf of all parents who have children with some form of physical or mental disability. She also fondly recalled the great Asturian, Gonzalo Anes, Marquis of Castrillón and director of the Royal Academy of History for two decades.

The Esther Koplowitz Foundation

The Esther Koplowitz Foundation was founded in 1995 to help the groups within society who are most in need. It activities are based on Social Work, such as the creation and management of retirement homes, and on Research and Development projects. These projects are carried out through organisations such as the Esther Koplowitz Biomedical Research Centre (CIBEK) and the University of Barcelona and its University Hospital.

The Foundation is strongly committed to supporting innovation and improvements in public healthcare. In 2006, it donated the Da Vinci Robot to the San Carlos University Hospital of Madrid in order to begin the Esther Koplowitz Robotic Surgery program. The Esther Koplowitz Foundation also works closely with other entities, institutions, NGOs and similar organisations to carry out humanitarian and aid work. It has received numerous distinctions and awards in recognition of its work.

2nd edition of the best Practices in Sustainable Mobility Awards

FCC wins award for its electric waste collection truck

Juan Béjar, FCC Vice-chairman and CEO, received the award from Isabel García Tejerina, Minister of Agriculture, Food and Environment.

FCC has been distinguished at the Best Practices in Sustainable Mobility Awards, organised by Renault España, through its Renault Foundation for Sustainable Mobility and the Sustainability Excellence Club. The awards had the support of the Ministry of Agriculture, Food and Environment via the Biodiversity Foundation.

Juan Béjar, FCC Vice-chairman and CEO, received the award from Isabel García Tejerina, Minister of Agriculture, Food and Environment, in the Major Company category and for the project entitled "New generation plug-in electric-hybrid waste trucks", for which the company has mass produced a hybrid vehicle that performs waste collection services fully in electric mode.

The electric truck provides energy savings of 40% compared with conventional waste collection vehicles, releases zero emissions to air, and causes minimum noise pollution, making it possible to use these waste collection trucks during the night shift.

Exclusive FCC technology

This technology, which is exclusive to FCC, is very significant as it is the most advanced technology available for waste collection services and is the result of more than six years of research.

Around 40 hybrid-electric waste collection vehicles (side and rear-loading) are currently in operations, with a maximum carrying capacity of 15 tonnes of waste. These vehicles are also equipped with water spraying mechanisms for use in street cleaning. The new generation of trucks, whose prototypes are already completed, will have a maximum carrying capacity of 37 tonnes of waste.

These awards aim to highlight the most notable initiatives being executed by large companies, SMEs and public administrations to promote and develop sustainable mobility in Spanish cities.

FCC Construcción

Miguel Jurado, new chairman

Miguel Jurado.

The Board of Directors of FCC, chaired by Esther Alcocer Koplowitz, meeting on 24 September, approved the appointment of Miguel Jurado as Chairman of FCC Construction and as a member of the Group's Management Committee, based on a favourable report by the Appointments and Remuneration Committee.

Mr .Jurado, who will report directly to Juan Béjar, Vice-Chairman and CEO, replaces Fernando Moreno, who is retiring after 28 years at FCC in various positions of responsibility. The Board expressed its gratitude for the hard work and dedication of Fernando Moreno, who was appointed to the top position in the Construction division in March last year.

FCC Construcción's new chairman graduated in civil engineering from the Technical University of Madrid in 1987 and obtained an MBA from IESE. He joined FCC, in the Construction area, in 1988.

In 2005, he was named head of Development and Subsidiaries at Aqualia; that same year, he was appointed Deputy General Manager of Development and International Business at Aqualia. He has been general manager of FCC Construction since March 2013.

Vicente Mohedano, new managing director

Vicente Mohedano.

The Board of Directors also approved the appointment of Vicente Mohedano Martín as managing director of FCC Construction, reporting to the chairman of this division.

Mr. Mohedano obtained a degree in Civil Engineering from the Technical University of Madrid. Since joining the Construction division in 1991, he has accumulated sound experience in managing civil engineering and industrial projects, and has held a number of positions of responsibility in those areas. He has been manager of Latin America and Algeria since June 2013.

FCC and EFE take the "Efe, 75 years in photos. 25 years building Latin America" photo exhibit to Panama

José Blandón, mayor of Panama City, José Antonio Vera, chairman of the news agency EFE, José María Torroja, manager of FCC Construction in Latin America, and Manuel Olivares Blázquez, chairman of FCC Construction in Central America, were in charge of inaugurating the photo exhibit entitled "EFE, 75 years in photos. 25 years building Latin America, in Panama's capital. The Spanish ambassador in Panama, Jesús Silva Fernández, and Jorge Luis Quijano, the Administrator of the Panama Canal Authority were also among the personalities present at this event.

The exhibit included a selection of 75 images from the more than 17million photos of the public agency's graphic archive.

> "75 images selected among the more than 17 million photographs in EFE's archives"

The photographs capture moments of great impact in several parts of the world, experiences that have changed the lives of thousands of people since EFE took its first photo, and also includes photos of civil works that have been built in various Latin American countries.

The graphic section includes photos taken in the last century in Latin America, including photographs of landmark projects such as the Aztec Stadium in Mexico, Panama's metro system, the Puebla motorway in Mexico, and the work for enlarging the Panama Canal.

José Antonio Vera, chairman of EFE Agency thanked FCC for its participation in the exhibit and highlighted the fact that several of the photographs capture projects of great repercussions that have contributed to the economic development of the countries in this region. The exhibit was also inaugurated in Costa Rica and in the coming months will travel to other Latin American countries such as Chile, Peru, Colombia, and Mexico.

FCC EN EL MUNDO

Incentivamos el DESARROLLO PROFESIONAL

FCC a leader in cleaning the Spanish coastline

> “Collects more than 1,600 tons of waste in several beaches in Cantabria and the Mediterranean”

FCC completed the summer season’s cleaning operations in the shores of Valencia, Alicante, Gandía, Guipúzcoa, El Campello and the Balearic Islands, collecting more than 1,600 tons of waste spread over 1,800 kilometres of the coastline.

These cleaning tasks are performed every year during the months when there are more tourists in order to improve the quality of sea water and to encourage respect for the environment and the sustainability of these spaces.

The service is provided in an area stretching from the coastline to 0.5 km offshore. Hence, the vessels used for cleaning operations perform their work in an area close to or within the bathing area.

In the shores of Valencia, it includes 198 beaches along the towns Benicarló and Burriana, Canet d´En Berenguer and El Perelló, Cullera and Denia, Calpe and El Campello and, lastly, Santa Pola and Torrevieja. At El Campello, the company provides cleaning services in 9 beaches and 8 coves In Alicante, the service is provided in 5

FCC removes 847 of algae in Alicante

One of the highlights of the cleaning campaign was the tons of algae collected in the beaches of Alicante. Committed to the cleanliness of the coastal areas, the company collected between 6 and 8 tons of algae daily in order to prevent it from reaching the beaches. On an annual basis, this adds up to a total of 847 tons of algae collected in the Alicante shores.

beaches, including San Juan, Albufereta beach, and Postiguet; 5 coves and some bathing areas such as the Isle of Tabarca and in San Gabriel.

In Gandía, general cleaning operations are performed in the north beaches, L´ahuir, Venecia and Rafalcaíd.

In Guipúzcoa, it includes 3 breaches and 3 sandbanks, including Concha Bay in San Sebastian where La Concha and Ondarreta beaches are situated.

In the Balearic Islands, FCC performs this service in 321 beaches and coves, 92 of these in Palma de Mallorca, 109 in Menorca, 92 in Ibiza, and 28 in Formentera.

Mostly plastic and organic material plus algae are collected in the areas where there is high population density. Large amounts of fishing-related material and wood are collected from the harbour areas.

Leaders in urban sanitation

In 2013, FCC was awarded 1,556 million euros worth of urban sanitation contracts (waste collection, street cleaning, urban waste treatment, garden maintenance, building and sewage cleaning, etc.). This sum is nearly twice as much as the 850 million euros in the previous year.

FCC provides urban sanitation services (waste collection, street cleaning, treatment of household waste, garden maintenance) in 3,384 of the 8,100 municipalities in Spain with a population of 27 million people.

The business portfolio of these activities grew 4.4% in comparison with 2012 and now amounts to 11,883.7 million euros.

Outside Spain, FCC conducts these activities in numerous countries, including the United Kingdom, Central and Eastern Europe, North Africa and Latin America with this international business generating revenue of more than 1 billion euros.

For operations involving the collection of floating solid waste and for cleaning the bathing areas, FCC uses 36 Marnett-type vessels, specifically designed for collecting floating and semi-floating waste, algae and medusa in the bathing areas as well as small oil spills in the beaches and harbours.

Each vessel is manned by a professional captain who performs the normal naviga-

tion tasks and is also in charge of handling the mechanisms of the waste collection equipment.

Communication systems

The vessels cover all the assigned areas during the entire working day, concentrating in the spots with the largest amount of waste and the greatest number of bathers. They are constantly in touch with the area managers and with the coordination and control centre of the corresponding entity.

All operators have a voice and data communication system with GPS so as to be able to know immediately the location of each of the vessels thereby facilitating the resolution of any incidents

Information management

An IT tool, consisting of an online database, is used for managing data. Information based on the daily work reports submitted by the different vessels is entered in the database.

This optimised management makes it possible to process and analyse information more quickly and comfortably and to report to the public the most relevant results almost immediately.

FCC awarded the Blue Flag seal of approval

In El Campello, the protection and conservation of the coasts was rewarded with a blue flag at the Carrer la Mar and Muchavista beaches and an environmental quality certificate thanks to the quality of the waters, the upkeep and cleanliness of the surroundings, and another certificate was given for the services and equipment provided in all of the beaches.

Juan Béjar tours the Tratamientos y Recuperaciones Industriales, S. A. (TRISA) facilities...

In his agenda of meetings with management teams from the different FCC business units, on 30 September Juan Béjar, vice-chairman and CEO of FCC, toured the facilities owned by Tratamientos y Recuperaciones Industriales, S.A. (TRISA), in the town of Constantí (Tarragona), accompanied during his visit by Aurelio Blasco, managing director of the Industrial Waste department of the Environment division.

The industrial treatment facilities started operations in 1985 and is the first plant authorised in Catalonia for performing the physical-chemical treatment of industrial waste. The plant is owned by FCC Ámbito, the FCC Group subsidiary specialising in industrial waste management.

Juan Béjar met later at a working lunch with the mayor of Tarragona, José Félix Ballesteros to share opinions on current issues.

Afterwards, they toured the machinery park and the offices of the Environment Division's Catalunya II branch office.

During his visit, FCC's vice-chairman and CEO was accompanied by Jorge Payet, the managing director of the Environment Division; Pablo Martín, manager of the Environment Division's Zone I, and by Jesús Padullés, manager of the branch office

... and the end-to-end water management service in Ávila

In order for water to reach the tap at the user's home with quality and return it to the environment in similar conditions after it has been used, it is necessary to have advanced technological infrastructures, specialised personnel, and a strict commercial management and customer service process to ensure that this activity is economically sustainable and that service is provided in a satisfactory manner.

Juan Béjar, vice-chairman and CEO of FCC during his visit to FCC Aqualia's branch office in Ávila, which has been providing management services since 1989, was able to learn first-hand about the production and commercial structure of this service.

The vice-chairman and CEO was accompanied by Eduardo González, chairman of FCC Aqualia; Ana Villacañas, general manager of Organization, Procurement, and Human Resources, and IT; Rafael Montes, FCC director; Félix Parra, managing director of FCC Aqualia; and Santiago Lafuente, manager of FCC Aqualia Zone I.

The first stop during the day's visit was the Potable Water Treatment Plant in the city which has a production capacity of 38,400 m3/day where they discussed the treatment process and the installations, pointing out as one of the main innovations, a flotation system capable of eliminating algae before the start of the purification process and the active carbon filters able to eliminate the impurities and by-products in water as well as any residual odour or taste. They also toured at these facilities the laboratory in Ávila, one of the five operated by Aqualia in Spain which has been certified by ENAC (the Spanish certification agency).

Afterwards, the group went to visit the recently inaugurated wastewater treatment plant, built by FCC Aqualia for the Castile-León regional government and featuring the latest generation wastewater treatment systems, such as ultra-filtering membranes, magnetic levitation blowers, a UV filter treatment and moto-generation and NH4 control systems. The visitors were shown the quality of the water outflow once the process has been completed.

The executives then visited the offices of the Municipal Water Department in the city's downtown district where they attended a presentation on the network management technologies and the structure of the Zone.

Lastly, the mayor of Ávila, García Nieto, welcomed the group of visitors at the City Council building and stressed the importance of FCC Aqualia's efficient management of a scarce resource such as water in the city which is of paramount value for its residents.

Desal2014

A showcase for the Latin American desalination activity

Aqualia Infraestructuras took part in the 4th edition of the Latin American Congress on Desalination and Water Reuse.

The Sheraton Hotel in Chile's capital hosted the Latin American Congress on Desalination and Water Reuse - Desal2014, the water management congress of reference in Latin America. FCC Aqualia has bolstered its positioning in the Latin American mining sector as one of the leading private water management companies.

Over the 3-day congress, the Company enjoyed a notable presence, not just as a gold sponsor, but also thanks to the participation of Bartolomé Marín, head of the Desalination Department of Aqualia Infraestructuras (AISA) in the technical program.

On the first day of the event, FCC Aqualia representative gave the opening speech entitled "Challenges in the marine desalination infrastructures". The company's stand was one of the ones that received the most visitors, with a wide representation of the company's clients, the managers of the desalination plants operated by the company in the regions, and the leading authorities of the Congress.

The fourth edition of Desal achieved a new record as to the number of participants (more than three hundred). The participating companies included Abengoa, Suez, Tedagua (ACS), Energy Recovery and Cadagua (Ferrovial), besides aqualia infraestructuras, an FCC Aqualia subsidiary which has already built two desalination plants that it currently operates in the northern part of Chile.

The first potable water station in the island of Tenerife starts operations

"A day of satisfaction" was how the mayor of the city, Marcos Brito, described the start-up of the first potable water station in the island of Tenerife at the official inauguration event. "Of satisfaction, because it marks the end of the crisis" which started at the beginning of the year due to the restrictions on the use of water in some parts of the city.

The project, the progress of which was followed by neighbourhood associations and the media during organized tours, improved the quality of water by correcting, definitively, the turbidity of the water at the entry of the deposits.

The work involved the construction of an automated filtering system and the related ancillary services at the La Montaña deposit. It included the installation and conditioning of the five silica sand filters measuring 2.5 metres in diameter, and a new pump to improve water supply in the areas that were at a higher level than the La Montaña deposit.

From left to right: Antonia Domínguez, counsellor of the Health Department of City Hall; Jesús Morales; Marcos Brito; David Díez and Braulio Domínguez, department managers of FCC Aqualia taste the water at the exit of the treatment plant. On his right, Atasara Hernández, head of FCC Aqualia, Canary Islands, department of Water Quality, takes a sample.

Completed in the agreed four months, thanks to this project, the city now has "its first potable water station with pressurised sand filtered installed in the island of Tenerife", explained David Díez, head of Production at FCC Aqualia in Tenerife.

The counsellor of the Water department at City Hall, Jesús Morales mentioned that "an important part of the problem had been resolved and will be completely addressed thanks to the deposit that is being executed at Vera". Besides the mayor, among those who were present in the event was Fernando Bethencourt and Lorenzo García, the manager and the head of infrastructures of the Island's Water Department; and Sebastián Ledesma, Urban Development counsellor who was accompanied by the municipal engineer.

Managing the end-to-end water cycle in Vallirana (Barcelona)

The new contract in this city near Barcelona, representing 16 million revenues, contemplates management of the end-to-end water cycle in the entire municipality.

Eva Martínez, the mayor of Vallirana, and Jordi Aguilera, the manager of FCC Aqualia's Catalonia and Aragón branch offices, have signed a 19-year drinking water supply and sewage cleaning concession agreement.

With this agreement and with the areas where Aigües de Vallirana is already operating, FCC Aqualia will be in charge of managing the end-to-end water cycle in the town of Vallirana, also supplying drinking water to several urban developments in Olesa de Bonesvalls. Accordingly, the company is increasing by more than 40% the number of clients in this town which is just 30 kilometres from Barcelona and has a population of 15,000 people living in 20 populated areas.

In the image above, the mayor of Vallirana and the manager of FCC branch office in Catalonia after signing the agreement.

Salamanca renews its trust in FCC Aqualia until 2026

The 17-year extension of the city's end-to-end water management contract with FCC represents more than 90 million euros worth of revenues.

On 9 October, the deputy mayor of Salamanca, Carlos Corbacho, and the manager of FCC Aqualia's Zone I branch office, Santiago Lafuente, signed an agreement to extend the city's end-to-end water management contract for another 17 years.

Since it started operations in this city on 1 January 1997, FCC Aqualia ha carried out several activities aimed at improving the quality of lives of its residents. These initiatives include infrastructures, such as the plant that treats the wastewater of the city's 260,000 inhabitants; or innovative research such as the "Salamanca Sustainable Solids" project designed for generating energy from the sludge produced in the wastewater treatment process. The water service in Salamanca currently has a portfolio of 70,000 clients which is handled by 115 professionals dedicated to the tasks of administration, supply and sewage networks, management of the drinking water plant, the wastewater treatment plant, and customer services.

Thanks to the extension of this contract, which will generate an additional 90 million euros in revenues, FCC Aqualia shores up its positioning as the main operator in the province of Salamanca. The company also operates in Ávila, where it manages other cities and towns, including the capital city, as well as in Burgos, León, Segovia and Soria. In the Castile-León Autonomous Community, it operates 49 major facilities: 25 potable water and 24 wastewater treatment plants, supplying more than 47 million m3 of drinking water.

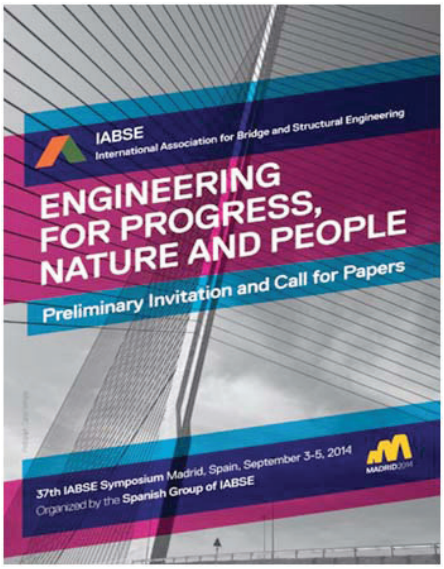
From left to right: Eliseo Guerra, secretary of the City Council, Carlos Corbacho, and Santiago Lafuente, during the contract signing ceremony.

FCC sells its Environmental Services Division in the US to Heritage-Crystal Clean

FCC has reached an agreement to sell its US environmental services company to Heritage-Crystal Clean for 70 million euro. The sale generates 15.4 million euro in capital gains for FCC and, and, in the words of Juan Béjar, Vice-Chairman and CEO, it "shows that FCC is continuing determinedly with the divestment programme under the Strategic Plan and is very close to the target of 2.2 billion euro, with the consequent reduction of debt".

Heritage-Crystal Clean is a leading US company in the area of environmental services, specialised in recycling industrial oils. Based in Elgin, Illinois, it operates through 76 branches, serving over 97,000 customer locations. It manages chemical products used by small and mid-sized enterprises, its main market.

Its customers include companies involved in vehicle maintenance operations, such as car dealerships, automotive repair shops, and trucking firms, as well as small manufacturers, such as metal product fabricators and printers.



IABSE International Congress

FCC Construcción participated last September in the International Association for Bridge and Structural Engineering Congress with two presentations:

- Danube Bridge II. Vidin Calafat. Construction methodology, by Fernando Flórez, former manager of the Technical Office of this project and currently in charge of the Mersey Bridge project in the United Kingdom.
- Design and Construction of San Marcos viaduct in the Nuevo Necaxa Avila Camacho highway, by David Arribas, the manager of the Bridge I corporate sub-division of technical services. David was also a member of the team responsible for the construction of the San Marcos Viaduct in Mexico.

Photos provided by Peru's Government Palace.

Miguel Jurado

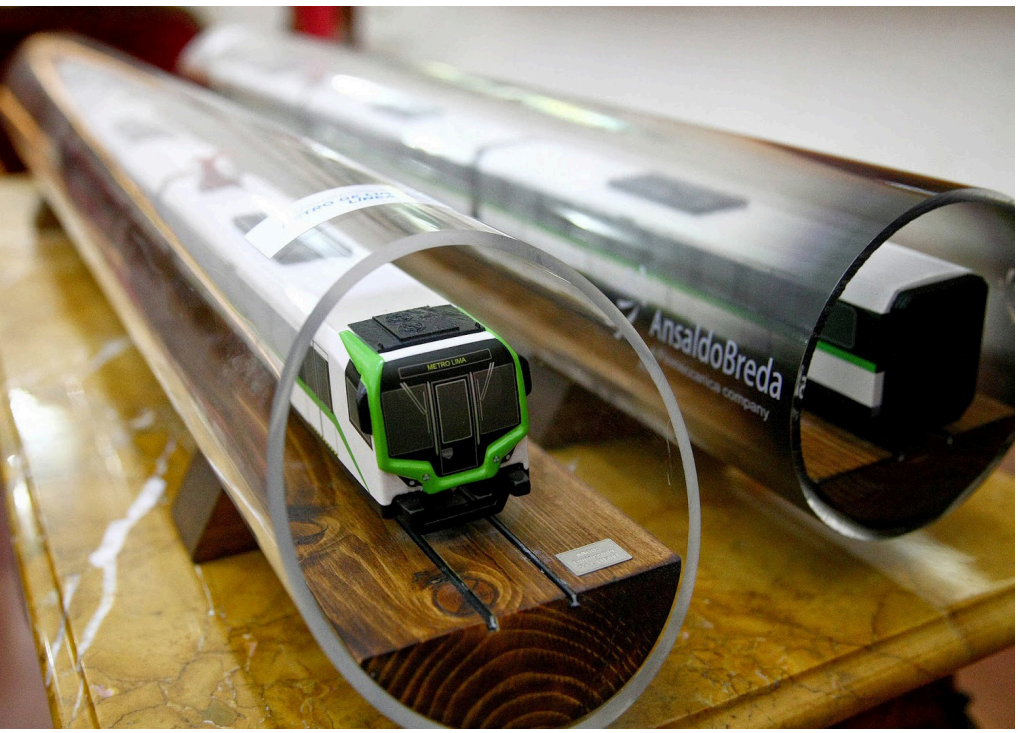
chairman of FCC Construcción, meets with the president of Peru

The chairman of FCC Construcción also met with top representatives of the Lima Metro Consortium.

Last September, the President of Peru, Ollanta Humala Tasso, accompanied by the Minister of Transport and Communications José Gallardo, received the senior representatives of Concesionaria Metro de Lima-Línea 2 for a business meeting to discuss the stages and timeline for the construction of Line 2 of the Lima Metro, which began just a few weeks ago. Miguel Jurado, the chairman of FCC Construcción was also present in this meeting.

Line 2 of the Lima Metro is the most important rail project in Peru's history. It is the country's first underground railway. Stretching over 35 kilometres, it will enable passengers to get from the Ate district to Callao in just 45 minutes. The project includes a branch of Line 4 to Jorge Chávez International Airport.

This mega-project will improve the quality of life in Lima and save time for millions of Peruvians. Along its route it will cover 13 districts, stopping at 35 stations and benefitting approximately 2.4 million inhabitants. The project will require an investment of approximately 4,400 million euros, and the first section will be completed in 2016.

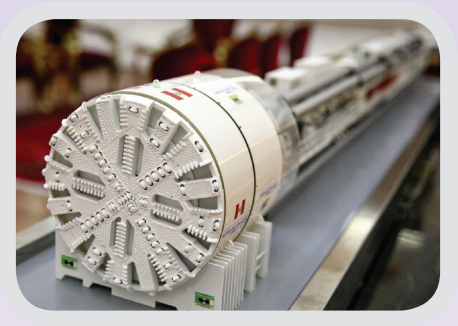


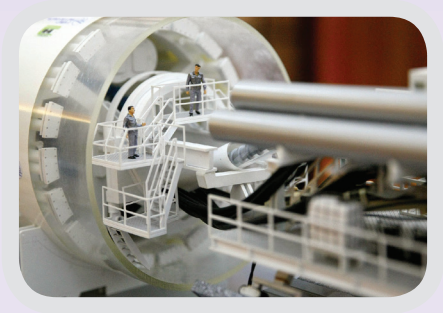
Lima metro system

The project awarded involves the construction of 35 underground stations along the 35 kilometres of tunnels. Over 3,000 professionals will work on the project. The choice of an underground transit system will reduce the impact on city life as well as transforming neighbourhoods since many of the locations above the new Metro line will become green areas.

Line 2, measuring almost 27 kilometres in length, will run east-west through Lima, from Ate to Callao, where FCC is also working to upgrade the port. Once the metro system starts operations, its 7 passenger stations will provide services every day to 600,000 people who will save up to 90 minutes on their commute. Travelling this distance by car currently takes two hours and twenty minutes.

The spur from line 4 to connect the city to the airport will run along 8 kilometres of tunnel, from Avenida Faucett to Avenida Néstor Gambetta. Eight stations will be built along this line.





Participation the Spanish-Korean Forum held in Madrid

The 1st Spanish-Korean Forum on Infrastructures, organized by the governments of Spain and the Republic of Korea, met for the first time in Madrid last September. Representing FCC was Plácido Álvarez, manager of FCC Construcción International Development, who spoke about the projects that the company is currently carrying out with Korea's Samsung: the Mersey Bridge in the United Kingdom, and Lines, 4, 5, and 6 of the Riyadh Metro in Saudi Arabia.

The Korean delegation was headed by Seung-hwan Suh, Minister of Territory, Infrastructure and Transport of the Republic of Korea, accompanied by the vice-chairman of ICAK, Paek Youngsun. The Spanish government was represented by Rafael Catalá Polo, Secretary of State for the Infrastructures, Transport and Housing Department of the Ministry of Civil Works.

The Spanish construction sector stood out thanks to its high level of international competitiveness and its ability to identify major projects. Korean construction companies are seeking synergies that enable Korean companies to work jointly with Spanish companies in Europe, Latin America and North America while Spanish companies aim to expand their operations in Asia and in the Middle East.

La ciudad FCC: a new online channel at the service of the business

FCC Construcción has launched a new online channel that enables two types of navigation: a virtual city and a map of the world pointing out the more than 120 unique projects according to continents and countries.

More than 40 projects in 3D are presented in the virtual city. There is also a menu which makes it possible to look at 120 projects broken down by the various business units. A descriptive file with a multimedia gallery opens up automatically when you click on any of the projects.

This application was developed in html5 web language and is optimised for IPads and tablets. It should be borne in mind that you can only navigate with Internet Explorer as of version 9, not with any previous version, as well as Mozilla Firefox and Google Chrome.

infraestructuras > medioambiente > agua

La ciudad es el lugar en el que vives. Nosotros trabajamos para que también sea el lugar en el que quieres vivir.

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

Lo estamos haciendo juntos.

www.fcc.es

FCC
Servicios Ciudadanos

Construcción

TAREAS: Tareas pendientes

NOTIFICACIONES: Avisos de novedades

IDIOMA: Disponible en español e inglés

FCC CONSTRUCCIÓN: Página principal donde encontrarás acceso directo a todos los elementos que forman parte de FCCCONE: Actualidad / Puede interesarte /Qué hacer si quieres

ÁREAS DE NEGOCIO:
Información sobre:
- Organigrama del área
- Funciones
- Documentación
- Obras
- Enlaces

ÁREAS CORPORATIVAS:
Información sobre:
- Organigrama del área
- Dptos. que integran el área
- Funciones
- Documentaciones
- Campañas
- Comunidades de trabajo

ACTUALIDAD: Entérate de las últimas noticias de FCC Construcción y accede, a través del histórico de noticias ("Ver mas noticias") a todo lo publicado sobre nuestra compañía

CLIPPING INTERNACIONAL:
¿Qué se dice de nosotros en el mundo?
Este informe que elaboramos de manera semanal, recoge todas las noticias internacionales de FCCCO y del sector

NOTICIAS DE LOS VIERNES:
¿Qué se ha dicho de FCCCO durante la semana?
Este boletín interno de noticias, nos presenta todos los viernes las noticias más relevantes sobre nuestra compañía

INFORME DE MONITORIZACIÓN MENSUAL:
Se habla de nosotros, y mucho, en las redes sociales y en la web pero...
¿Qué dicen de nuestra compañía los internautas?
Este informe mensual nos acerca, a través de un exhaustivo análisis cuantitativo y cualitativo de la reputación de FCCCO que va generando

ueva intranet
one

FAVORITOS: Personaliza tu intranet y establece tus accesos favoritos

APLICACIONES: Disfruta de las mejores herramientas que ofrece el entorno web 2.0

QUIÉN ES QUIÉN: Encuentra cómo ponerte en contacto con tus compañeros a través de este direcctorio de empleados de FCC

BUSCAR EN ONE: Encuentra de una manera rápida y sencilla todo lo que necesitas en FCCCONE, a través de esta herramienta de búsqueda interna.

DESTACADOS: Aquí encontrarás a través de un sólo vistazo, todo lo que necesitas saber de FCCCO. Lo último, lo más transcendente... ¡No esperes a que te lo cuenten!

CALENDARIO: Con un diseño completamente renovado para que te resulte más fácil buscar los eventos organizados o en los que participa FCC Construcción

CAMPAÑAS:
Metro de Riad / FCC en el mundo / FCCCO Live / Plan de igualdad

POST-IT

Este original postit te mantendrá informado y en alerta a diario, de los comunicados y mensajes más importantes de FCCCO

BANNER DE ACCESO DIRECTO:
Ahorra tiempo en la navegación gracias a este banner de accesos directos. Ahora podrás acceder a estas secciones a través de un sólo clic
(Vídeos / Dónde estamos / Consluta de obras / Novedades / FCC Construcción (live)

Mexico's president witnesses the start of operations of this major project built by FCC

Enrique Peña Nieto, President of Mexico, inaugurates new toll road between Nuevo Necaxa and Tihuatlán

The new road section inaugurated by the president includes the new Necaxa-Tihuatlán stretch of the motorway. Worth an investment of 500 million euro, the new section will become the main thoroughfare connecting the Federal District with the Gulf of Mexico.

The President of Mexico, Enrique Peña Nieto, has inaugurated the Mexico City-Tuxpan corridor. The road, built by FCC and the local construction company ICA, is expected to have a significant impact on tourism by facilitating access to Tuxpan, a major tourist destination which offers numerous attractions. The project also includes the Nuevo Necaxa-Tihuatlán road section.

President Peña Nieto was accompanied at the inauguration ceremony by Mexico's Secretary of Communications and Transport, Gerardo Ruíz Esparza; the Governors of the

> "The project, worth an investment of 500 million euros, is part of the new Mexico City-Tuxpan Corridor"

States of Hidalgo, Mexico, Puebla and Veracruz; Bernardo Quintana Isaac, Chairman of the Board of Directors of ICA; Miguel Jurado, General Manager of FCC Construction; Vicente Mohedano, Deputy General Manager of FCC Construction for Latin America and North Africa; and Eugenio del Barrio, General Manager of FCC Construction Mexico.

In his address, the President highlighted that the new road will be the shortest link between Mexico City and the coast, providing access to the port of Tuxpan.

He also expressed his gratitude to ICA and to the subsidiary of the Citizen Services Group for their "performance and work in this final section of the road, due to the challenging terrain in the region".

> "The president expressed his appreciation for the performance and work carried out in building this new road section"

International Water Congress, in Portugal

FCC Aqualia professionals stand out in all areas

of the Technical Departm

Eduardo
Felix Pa
CEO of FCC Aqualia

From 21 to 26 September 2014, Lisbon became the world's water capital when it hosted the prestigious IWA World Water Congress (International Water Association), the most important meeting of its kind held every two years which brings together Governments, Administrations and Organizations. Under the slogan "Shaping our water future", nearly 5000 delegates analysed the key issues that will be affecting the sector in the coming years.

FCC Aqualia's stand at the IWA International Water Congress.

The congress revolved around several thematic tracks:

1.-Cities, Utilities and Industries Leading Change.

2.-Re-Charting the Course of Water Resources.

3.-Enabling Progress with Good Governance, Sustainable Finance and ICT.

4.-Water quality, Safety and Human Health.

5.-Water and Wastewater Processes and Treatments.

The Congress analysed the current situation and the future of the water sector through several presentations, projects, workshops and other activities. FCC Aqualia was a leading player with Eduardo González and Félix Parras, chairman and managing director of FCC Aqualia, respectively, representing the company.

They were accompanied by many of the people who are part of FCC Group's water subsidiary, including: Jesús Rodríguez, manager of the branch office in Portugal; Artur Vidal, manager of Production and Development in Portugal; Zouhayr Arbib, researcher; Rita Antunes of the Technical Department of the Portuguese branch office; Frank Rogalla, Innovation and Technology manager; Elena Maneiro, head of the Innovation and Technology project; Guillermo Moya, manager of International Development; Enrique Hernández, manager of Service Management and Corporate Responsibility; Fernando de la Torre, manager of the rest of the North zone I branch office; Víctor Ferreira, of the Communication department in Portugal; Luis de Lope, International director; Jose Ramón Vázquez, project manager, from the Innovation and

Enrique Hernández
manager of Service Manageent and Corporate Responsibility

Luis de Lope
International director

Artur Vidal
manager of Production and Development in Portugal

Zouhayr Arbib
Researcher

Rita Antunes
ent of the Portuguese branch office

Jesús Rodríguez
manager of the branch office in Portugal

González
chairman of FCC Aqualia

rra

Elena Maneiro
head of the Innovation and technology Project

Fernando de la Torre
manager of the rest of North Zone 1 Branch Office

Guillermo Moya
manager of International Development

From left to right: Artur Vidal, manager of Production and Development in Portugal; Guillermo Moya, manager of international Development; Luis de Lope, international director; Eduardo González, chairman of FCC Aqualia; José Sardinha, chairman of Epal; Felix Parra, managing director of FCC Aqualia; a representative of the Portuguese water company; and Jesús Rodríguez, manager of the branch office in Portugal.

Jose Ramón Vázquez
head of the project, of the Innovation and Technology team

Frank Rogalla
Innovation and Technology manager

Juan Pablo Merino
manager of the Innovation and Technology Project

J. Alberto García
head of Communication

Víctor Ferreira
of the Communication department in Portugal

Yolanda Barahona
head of Marketing

Pablo Contreras
FCC Aqualia's Communication and Marketing department

Raquel López
from the Communication and Marketing Department

and many more participated in this international event.

> FCC Aqualia's R+D is distinguished with an award at the International Water Congress

FCC Aqualia Group at the IWA International Water Congress.

Technology team; Juan Pablo Merino, manager of Communication and Marketing, and also Yolanda Barahona, head of Marketing; J. Alberto García, head of Communications; and Pablo Contreras and Raquel López del Communication and Marketing department.

All of them and many more enabled FCC Aqualia to triumph and to be, during the Congress, an example of a company that does things well, with efficiency, integrity, and proximity.

Artur Vidal, manager of Production and Development in Portugal

Extraordinary presence

At this edition of the IWA Congress, FCC Aqualia wagered strongly on having an extraordinary presence. Besides its commercial involvement as a Platinum Sponsor, the Company was of the key contributors to the scientific program.

It had 14 posters and two presentations, organized in collaboration with entities such as the Universities of Santiago de Compostela, Cadiz, Alcalá de Henares, Valladolid, the Polytechnic University of Valencia and the Complutense of Madrid, jointly with IMDEA Water and Likuid Nannotek. In addition, company representatives coordinated a workshop and participated in different forums and sessions throughout the entire event.

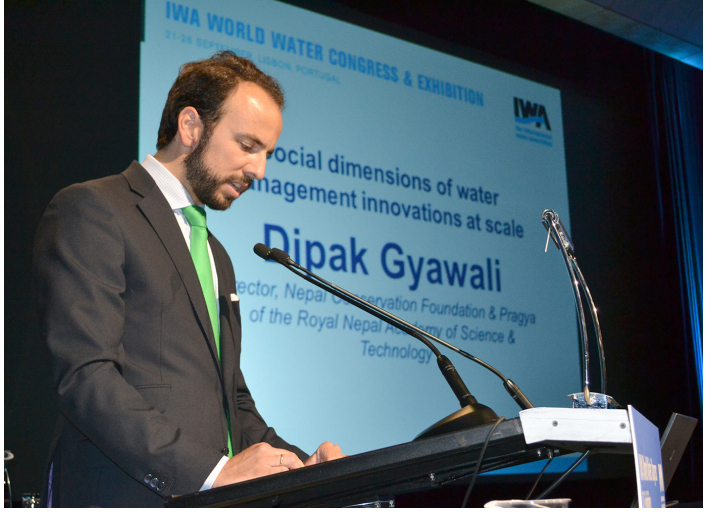
Presentation of the All-gas y ELAN® projects

From the commercial standpoint, the company's stand became a meeting place for delegates and visitors. Designed as an open and transparent meeting point, the stand hosted presentations every day on new water management related aspects: smart cities; the All-gas and ELAN® R+D projects, and the presentation of the new Corporate Social Responsibility Report (CSR) in Portuguese by Rita Antunes of the Technical Department of the Portuguese branch office.

The IWA stand hosted an international video presentation prepared at the initiative of Aquarating in which FCC Aqualia participated through its water department of Almeria and where Enrique Hernández, the Company's manager of Service Management and Corporate Responsibility played a key role.

Luis de Lope, International director, and Jesús Rodríguez, manager of the branch office in Portugal.

Frank Rogalla, Innovation and Technology manager.



Guillermo Moya, manager of International Development.

Víctor Ferreira, of the Communication department in Portugal and Pablo Contreras, FCC Aqualia's Communication and Marketing department.

Rita Antunes, of the Technical Department of the Portuguese branch office.

FCC Aqualia's commitment to Portugal

The team from the FCC Aqualia branch office in Portugal reinforced with the presence of Eduardo González and Félix Parra, chairman and managing director of the company, respectively, took advantage of the occasion to present the new brand in Portugal. Representatives from the chambers of commerce, the news media, and the entire delegation attended the event in which Jesús Rodriguez, manager of the branch office in Portugal, underscored the company's commitment to the country: "we are committed to the social development of this country and for this reason we have created a company with 100% Portuguese capital so that all our efforts revert back here". Afterwards, Artur Vidal, manager of Production and Development in Portugal, described in detail the key figures and the projects that the company is currently carrying out in this neighbouring country.

Positioning

FCC Aqualia is currently executing a communications plan to position the new brand in Portugal and to stress the added value generated in a territory when a company such as FCC Aqualia manages public water services: economies of scale, synergies, and the development of innovation projects, among other.

The FCC Aqualia team during one of the seminars.

Workshops, plenary sessions

The Resource Recovery workshop was conducted during the course of the congress, coordinated by Frank Rogalla, Innovation and Technology manager at FCC Aqualia, and Elena Maneiro, head of the project in the same department. The researchers Jules van Lier and Charles Banks who are currently involved in a European anaerobic membrane reactor project also participated in this workshop.

> “More than 5000 people participated in this congress, the most important one of its kind worldwide in the water industry”

Guillermo Moya, manager of International Development, participated in the plenary session “Social Dimensions of Water Management Innovations at Scale”, and was in charge of presenting Dipak Gyawail, manager of the Nepal Water Conservation Foundation and an academic of the Royal Nepal Academy of Science and Technology.

Frank Rogalla, Innovation and Technology manager at FCC Aqualia highlighted the benefits that small and medium-sized city councils can reap from the All-gas research project to optimise the water treatment process. The project, being conducted from a highly practical standpoint studies the harvesting of microalgae from wastewater to generate bioenergy.

Jose Ramón Vázquez, project manager, from the Innovation and Technology team, unveiled at FCC Aqualia’s stand the ELAN® project, a significant improvement in the energy performance and sustainability of wastewater treatment plants.

Prize for researchers’ efforts

The high point of the event took place at the closing ceremony where the “Low Cost Microalgae Harvesting Strategies for Wastewater Treatment Plants” poster presented by the researcher Zouhayr Arbib, was selected as the best among the 600 scientific presentations. The award-winning research project studies the harvesting of high energy value microalgae as part of the All-gas pan-European project led by FCC Aqualia and co-financed by the European FP7 program.

The award recognises the efforts of FCC Aqualia’s young researchers and the efforts of the team of the company’s scientists at this event. The positive outcome of the event received significant coverage in the news media. Newspapers, news agencies, and radio stations highlighted the added value generated by having a company such as FCC Aqualia managing the public water services, which benefits include economies of scale, synergies, and the development of other innovation projects.

FCC Construcción participates in the new "SPIA" R+D+I Project

> "New high-visibility Signalling Systems"

> "Financed by the Ministry of the Economy and Competitiveness"

> "Co-financed by the European Union with FEDER funds"

FCC jointly with NOVATEX, the Centro de Investigación de Nanomateriales y Nanotecnología (Nanomaterials and Nanotechnology Research Centre, CINN-CSIC) and Fundación ITMA (Instituto Tecnológico de Materiales), participates in the "SPIA" R+D+i Project. The objective of this project is to design, develop, test, and implement new high-visibility signalling systems, creating a series of autonomous luminous garments for individual use made of smart textiles (photoluminescent, electroluminescent) and "energy harvesting" devices (piezoelectric or ferromagnetic).

Research on these materials started in 2011 and will continue to be conducted, analysing the process, developing and industrialising new materials up to the end of 2014.

The "SPIA" project seizes the technological advantages of textile nanotechnology to develop new smart materials (phosphorescent and electroluminescent), manufacturing functional textiles with luminescent properties. The project also aims to develop an adequate high visibility system to take advantage, by means of piezoelectric devices, of the energy generated while walking to feed the LEDs embedded in footwear and/or other garments.

The novelties and improvement resulting from the SPIA Project represent a great technological leap in occupational hazard prevention since the new equipment being developed will make it completely unnecessary to have external light in order to have visibility and its surface will have greater luminosity thereby reducing the serious risk of accidents caused by being run over or by being hit.

The aim is to develop prototypes of garments made of phosphorescent fabrics, adapted to the various fields requiring the use of individual protection equipment with the high visibility properties as contemplated in Spanish Royal Decree 1407/1992 and, beyond this decree, marketing of these products thereby improving upon the current systems for preventing the risks associated with the lack of visibility.

Characteristics of the luminescent garments

- Garments for individual use.
- Not dependant on external conditions and/or factors related to the activity.
- Highly resistant to continued use and dirtiness.
- Visibility regardless of external light.
- Fully autonomous during the entire working day (10-12 hours).
- Cost affordable for the businessman.

Sharing experiences in Istanbul

Cristina García Herguedas, manager of the Shared Prevention Department of FCC Construcción meets with organizations from EU member countries

Although a health and safety management system is not an end in itself, it could be of great help for a company in preventing and avoiding the main health and safety hazards more simply, systematically, and in a practical way.

In the context of social dialogue, the European Construction Industry Federation (ECIF) and the European Federation of Building and Woodworkers (EFBWW) carried out jointly several safety and health related projects, including the drafting of a guide for developing a safety and health management system, a tool to encourage companies and to contribute to the development of a health and safety management culture at each construction company.

FCC Construcción participates actively in preparing and disseminating these projects through Cristina García Herguedas, the Manager of the FCC Construcción Shared Prevention Department. As the chairman of ECIF's Safety Committee, Christina Herguedas defends the interests of European construction companies.

The dissemination of these projects is carried out through seminars organised in European Union member states, focusing on Eastern Europe, Ljubljana, Budapest, Sophia and Istanbul as well as in other locations. The aim of these seminars is to present the practical guide in model companies such as FCC Construcción.

This implies the sharing of experiences among the most representative organizations in the European Union such as the International Organization of Labour Inspections, European Union trade representatives (EFBWW regional organizations (TÜRKİYE YOL-İŞ SENDİKA), business organizations (ECIF), OSH professionals and researchers.

Photo of the members of the bicyling team at their arrival in Santiago in front of the façade of the Cathedral, currently being refurbished. Among them, Isidoro Marbán 2nd on the left) and Javier Ferrero (5th on the right).

The brand rides a bike

A team of bicycle rides which included several FCC Aqualia employees, covered 750 kilometres of the Way of St. James in eight days.

On 6 September, the members of the FCC Aqualia bicycle team, wearing garments with the FCC brand, arrived at the Cathedral of Santiago de Compostela after riding more than 750 kilometres in eight days, the distance separating Bilbao from the city of Santiago.

Besides the satisfaction of having reached the goal, the pilgrims felt very comforted by the treatment they received along the way. As expressed by Isidoro Marbán, the Economic-Financial manager of FCC Aqualia and a member of the cycling team, "one of the highlights of this event was the warm welcome that we received in many towns along the route when they recognised Aqualia's logo printed on the jerseys".

This team has already participated in several routes and events wearing the Aqualia logo nationwide. These races include the Talajara B-PRO Bike, several editions of the Soplao race, the Cistercian Route, the Alto Tajo and the Riaza B-pro events.

FCC Aqualia

The strength of its commitment

The Cabezo de Torres (Murcia) Sports centre opened its doors after only five days thanks to the efforts of its workers.

The heavy rains in October in the city of Murcia caused serious flooding at the installations of the Cabezo de Torres Sports Centre. The decisive actions of the centre's workers made it possible to partially open the centre to the public in only five days.

In a few hours, the workers organised the first cleaning phase to re-establish access to the ground floor of the facilities and the outdoor area. The manager of the Levante branch office, Manuel Calatayud, described the work as "hours of work, efforts, responsibility and, most importantly, commitment to the company".

The work carried out in the activation of the Emergency and Evacuation plan was also praised. When the flooding occurred, 160 people were inside, most of them children, who were evacuated quietly and without any incidences.

In the photo above, workers from the Sports Centre performing cleaning tasks at the sports facilities.

> "The evacuation of 160 people was made quickly and without any personal damages"

In the image, a group from the first "Lead your future" workshop performing some practical exercises on team management. All of them also participate in the mentoring program that is being conducted currently at FCC Aqualia.

Supporting women's talent

For the second consecutive year, FCC Aqualia opens two practice workshops to promote women's leadership.

Promoted by the Madrid Regional Government and part of the project to promote women's leadership in the corporate world, FCC Aqualia organised two practice workshops aimed at women and members of the Human Resources team.

In the first workshop for women, participants received training with a basically dynamic practical approach in communication, negotiation, and team management skills. Employees at the Human Resources department discussed the opportunities offered by flexible organizational policies and the incorporation of different groups in jobs of responsibility thereby addressing possible imbalances.

These workshops are linked to the Equality Plan which contemplates actions for the career development and progress of women who work in the company. For the third consecutive year, the plan received a positive rating from the Ministry of Health, Social Affairs and Equality thereby enabling the company to continue using the "Equality in the Company" seal.

Grazatlon 2014:

"Jump into the mud" with .A.S.A.

This year the famous "Grazathlon" was hosted again within the inner-city of Graz, Austria.

This event has always been very popular with participants and spectators alike. 1.800 athletes battled through 15 spectacular and challenging obstacles on a trail of 10 km. Not for the fainthearted – with a final 260 draining stone steps up to the Grazer Schlossberg awaiting the athletes at the finish.

.A.S.A. provided the obstacle "jump into the mud" in the Grazer Augartenpark.

With the finger on the mAp

All the participants had to take a run-up and jump into the skips, which were filled with mud, making their way from each skip to the next. At the exit a cold shower from the fire hose was waiting, which was a highly welcome cooling off for most of the participants of the Grazathlon.

The obstacle provided by .A.S.A. was one of the most spectacular and entertaining on show, drawing the most spectators - a particularly special highlight of the event! Famous Austrian sport stars like Mario Haas, Markus Schopp and Andi Goldberger took part in this event as well.

"Beat the City" – the motto, completely living up to the event. .A.S.A. is already looking forward to next year's Grazathlon!.

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Social responsibility

FCC Group's Sustainability and Corporate Responsibility reports

Essential tools

FCC Construcción, FCC Medio Ambiente, Aqualia and Cementos Portland Valderrivas have published their annual Corporate Responsibility Reports prepared under the G4-Global Reporting Initiative guidelines thanks to which the reports obtained the maximum A+ rating. To ensure that the information contained therein is reliable, the reports were also verified by external specialised firm.

The objective of these reports is to allow internal and external stakeholders of each organization interpret and assess the corporate results of these FCC subsidiaries in the context in which the entity conducts its operations and to check if the strategies implemented succeed in contributing to a sustainable scenario.

FCC Medio Ambiente

The Environment division is governed by the three guiding principles of the Group's Corporate Responsibility Master Plan (2011-2014): Exemplary behaviour, Smart services, and Connection with the Citizens.

It performs activities characterised by their strong human component, its 29,104 employees which represent 46% of the total FCC Group workforce. The waste collection, treatment, and recycling activities remain at the top, representing 48.6% f the business, followed by urban cleaning activity which accounts for 32.1% of the total.

Through the guiding principle "Connection with citizens", FCC has proposed a series of objectives to strengthen the bond with the communities, encourage sustainable habits, design projects that contemplate the collaboration of employees and the aspirations of the community where it operates.

FCC Medio Ambiente has invested 14.9 million euros in carrying out 452 initiatives with a social or environmental impact. It was awarded as prize at the 2d edition of the FCC Safety and Health Awards and the fist certificate as a healthy company.

FCC Aqualia

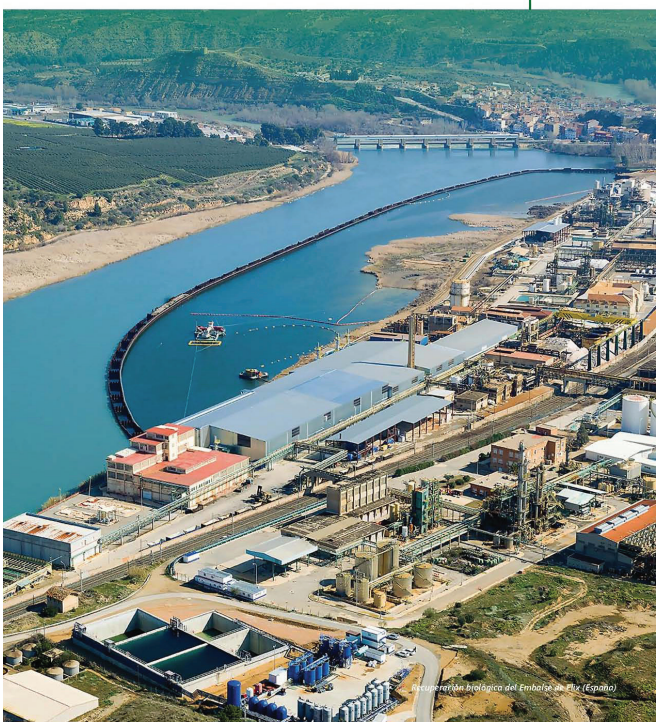
FCC Aqualia's CSR Report was prepared and verified in accordance with the G4-Global Reporting Initiative (GRI) non-mandatory standard which makes the company one of the first to be awarded the Materiality Matters seal. It has also become the first Spanish comprehensive water services that calculates and verifies its carbon footprint.

FCC Aqualia has invested more than 3.4 million euros in innovation projects.

The report focuses on the five points around which the company revolves: clients, employees, the environment, and the community. It is the outcome of a plan aligned with the activities conducted by FCC Aqualia and its commitment to offer a sustainable and responsible service.

FCC Construcción

Memoria de sostenibilidad | 2013 2014



FCC Construcción

The new Strategic Plan 2013-2015 wagers on concentrating efforts in strategic businesses and promoting the international presence in the more stable and profitable geographies. This was reflected in the fact that FCC Construcción is currently operating in 35 countries and 62% of its portfolio is outside Spain.

It focuses mainly on relevant aspects in relation to the company's approach in managing human rights, its work standards, the environment, and the fight against corruption.

FCC Construcción has organised several awareness-building campaigns such as the 1s Disability and Social-Work Integration Week and the dissemination of the campaign against gender violence that was launched by the Ministry of Health, Social Services and Equality. Throughout 2013, the company was also active in preparing the FCC Group Climate Change Strategy and has worked on quantifying and verifying Scope 3 emissions in the inventory of greenhouse gas emissions.

GRUPO CEMENTOS PORTLAND VALDERRIVAS

memoria de SOSTENIBILIDAD 2013

Grupo Cementos Portland Valderrivas

With this new edition, Cementos Portland Valderrivas maintains its firm commitment the sustainability policy, applying good governance practices, respect and care of the environment, and its active collaboration with our stakeholders.

It is worth mentioning that 98.5 of its 1,827 employee workforce worked full time and only 1.5% had part-time contracts.

The Cementos Portland Valderrivas Group believes that the career development of those who work in the organization is one of the essential keys for achieving its corporate objectives. In 2013, the company published the Groups Safety and Occupational Health Policy which sets out its clear commitment to ensure safe and healthy working conditions to all its workers and stakeholders.

7th edition of the Sustainable Development Awards

For Cartagena's City Council and the city's cleaning service

> "The recognition for the company that performs cleaning services was awarded for its implementation of eco-management measures"

The Department of Agriculture and Water of the Autonomous Murcia Community gave out the prizes corresponding to the 7th Edition of the Sustainable Development Awards. In this edition, the Cartagena City Council won one of the prizes for the Environmental Classrooms organized by its Department of Education, and another one was awarded to Lhicarsa, the company that has the concession for the city's cleaning service.

Josefa Maroto, counsellor for Education, and the counsellor for the Environment, Joaquín Segado, the latter collecting the prize on behalf of Lhicarsa, were present at the award ceremony that was held at the Events Hall of the Department.

The Sustainable Development award are honorific and do not imply any monetary prize. Its objective is to publicly recognise the efforts of companies, institutions, organizations, and associations in the region in sustainable development so that they can spread these successful experiences and ideas as a reference for others.

The prize includes several categories: the Sustainable Development awards, such as the one given to Limpieza e Higiene de Cartagena S.A. (Lhicarsa) for implementing eco-management measures such as the treatment of leachate or the production of electricity from gas in the landfill sites; the Corporate Social Responsibility awards in environment-related issues; and, lastly, the Environmental Education awards which was given this year to the Cartagena City Council.

This recognition is part of the Reduce, Reuse, and Recycle: the three Rs program which has been carried out since 2008 by the Department of Education in collaboration with the Department of Infrastructures and Lhicarsa to educate students on the selective waste collection system implemented in Cartagena, its ecological advantages and the basic rules for its appropriate use.

Aimed at students in the 3rd cycle of primary education, the workshops are organized at the La Vaguada Ecopark where a classroom has been fitted for this purpose.

Waste collection in Bilbao.

Parks and garden maintanence and upkeep in Valencia.

International Urban Planning and Environment Week in Madrid

14th Broom Contest 2014 awards given out

Bilbao, Valladolid, Valencia, Vigo, Laredo (Cantabria), Oviedo and the Asturian towns of Ribadesella, Llanera and Grado are the cleanest cities in Spain.

Bilbao, Valladolid, Valencia, Vigo, Laredo (Cantabria), Oviedo and the towns of Ribadesella, Llanera and Grado in Asturias, where FCC provides waste collection services, were the winners of the "Platinum Brooms" award, the top prize given out each year by the Asociación Técnica para la Gestión de Residuos y Medio Ambiente (Technical Association for Waste Management and the environment, ATEGRUS).

The contest was organized as part of an ATEGRUS initiative to support, reward, and disseminate waste collection and urban cleaning expertise as well as the preparation of projects and technological developments for the sustainable management of our environment, in collaboration with the International Urban Planning and Environment week. The award ceremony was held in the South Auditorium of Madrid's Fair Grounds.

This was the 14th edition of the Silver, Gol, Special Mentions, and Platinum 2014 Awards which are given within the context of the International Urban Development and Environment Week celebrated in Madrid.

More than 62 municipalities and companies participated in the contest organized by ATEGRUS to reward good waste management and urban cleaning.

> "The first edition of this contest was held in 1987, organized by the European Union coinciding with the European Environment Year. ATEGRUS was in charge of organizing the event"

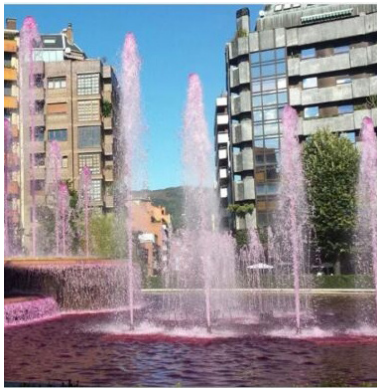
Two images of the award-winning city of Oviedo.

In the photo above: Oviedo's mayor with AECC representatives, Trinidad Ordiz Gómez, Councilwoman of the Water Department, and Alfonso Tomás, manager of FCC Aqualia in the city.

Oviedo, dressed in pink to fight breast cancer

The main fountains of the city were tainted pink to create awareness and support for this disease that affects many women.

The main ornamental fountains of the capital of the Principality of Asturias were tainted pink as part of the events organised throughout the country to commemorate "Pink Week" against breast Cancer.
FCC Aqualia, in this symbolic way, participated in the events organised by the Spanish Association Against Cancer (AECC, Spanish acronym) and Oviedo's City Council. Agustín Iglesias Caunedo, the city's mayor, joined the initiative and posed wearing pink sunglasses together with the AECC representatives at one of the fountains and promoted the initiative through his Twitter and through the municipal Facebook account which received more than 42,000 visits.
During the weekend, the fountains in America Square and in Escandalera became the chosen backdrop to remind neighbours and tourists of this unique solidarity initiative aimed at creating awareness on breast cancer and to raise funds for the fight against this disease.



> "More than 42,000 people have visited the fountains via Facebook"

Mafalda welcomes Quino in Oviedo

The Argentinean cartoonist collected the Príncipe de Asturias Communication and Humanities 2014 Prize.

The sculpture of Mafalda, which was sponsored by FCC Aqualia, a twin of the one in Buenos Aires, was placed in the main park of the capital of Asturias.

The Príncipe de Asturias Communication and Humanities 2014 Prize was awarded this year to Joaquín Salvador Lavado Tejón, the Argentinean cartoonist who is better known worldwide as Quino. He achieved international fame with the creation of the universe of Mafalda, a girl who perceives the complexity of the world through the eyes of a child.

The mayor of Oviedo, in the presence of Quino, unveiled a statue of Mafalda in the city's landmark San Francisco Park. The work is a replica of another sculpture in Buenos Aires (Argentina) and was made by the same artist, Pablo Irrgang, who conceived the sculpture as "homage to Quino and his character". The sculpture and the director of the Príncipe de Asturias Awards Foundation plus FCC Aqualia representatives were present at the unveiling ceremony.

The mayor, during the event thanked FCC Aqualia for its help with the logistics involved for transferring the statue from Buenos Aires to Oviedo which, they said, "was not an easy task".

Mafalda is intelligent, ironic, a non-conformist, rebellious, and sensitive. She dreams of a world with more dignity, just and respectful of human rights, values that FCC Aqualia fully subscribes.

The sculptor Pablo Irrgang with FCC Aqualia's manager in Oviedo during the preparatory work before placing the statue of Mafalda in San Francisco Park.

José María Seoane and Mario Sánchez with the Aenor certificate.

Aenor certifies the Energy Management System at the Las Tablas building

Aenor has certified the Energy Management System at FCC's headquarters building in Las Tablas (Madrid), which is managed by the Group's General Services in accordance with ISO 5001 International Standard requisites. The certificate was awarded by Asociación Española de Normalización y Certificación (AENOR, Spanish acronym for the Spanish Association of Standardisation and Certification) after successfully completing the audit.

The leading certification entity also issued several sub-certificates for other business units occupying the same building: FCC Medio Ambiente, FCC Aqualia, FCC Construcción and FCC Ámbito.

One of the advantages of this certificate is that it contributes to managing and reducing energy consumption at companies with the positive influence that this implies in terms of reducing associated finance costs and greenhouse gas emissions.

The award ceremony was held at FCC's Las Tablas headquarters and was chaired by José María Seoane, manager of Corporate Expenses and General Services at FCC and by Marío Sánchez, deputy-manager of AENOR. Various representatives from different business units who also contributed to the project were also present at this event.

José María Seoane congratulated the entire team for their work and efforts and personally thanked Carlos González Monar, the manager of the building, and Juan Ma-

The team which contributed to the Energy Management System certified by Aenor.

José María Seoane and Mario Sánchez give the certificate to Carlos González Monar and Juan Manuel Alcaide.

nuel Alcaide, the building's supervisor, for their involvement in securing this certificate, a useful tool for improving energy performance and for consistently complying with current regulations in this respect.

This system is implemented for managing energy and the various installations / maintenance of the building, such as electricity, temperature control, control of the facilities, etc. The aim is to optimise and rationalise the use of energy while ensuring compliance with the various legal requisites for building management.

One of the key milestones was the reduction of contracted power by more than 60% (estimated annual savings of 35,000 euros) which has made it possible to reduce electricity consumption by about 6%.

Work is currently being carried out in investment projects to reduce power consumption by installing LED light fixtures in the parking facilities and elevator lobbies.

Carmen Romero Oliver, production manager at FCC Medio Ambiente's branch office in Barcelona collected the prize awarded to FCC by Fundación Integra. jefa de producción de la delegación de Barcelona y Baleares de FCC Medio Ambiente recoge el premio otorgado a FCC por Fundación Integra.

FCC receives recognition for its involvement with people at risk of social exclusion

The Integra Foundation has given recognition to FCC for its involvement with people who are at risk of social exclusion and with the disabled at an event held in Madrid before an audience of hundreds of managers in charge of people management, corporate social responsibility, and communication.

"Socially responsible employment: commitment and profitability" was the title given to the seminar which stressed the importance of collaborating with all social agents to integrate groups at risk of social exclusion and people with disabilities.

The founding chairman of Fundación Integra and mayor of Madrid, Ana Botella, chaired and closed the seminar. She took advantage of the occasion to thank companies for their work "by offering people who never had an opportunity a job, you help them become financially independent and this enables them to regain control of their lives".

Carmen Romeo Oliver, head of production at the FCC Environment Barcelona and Balearic Islands branch office collected the prize on behalf of FCC.

Fundación Integra

Fundación Integra has been able to negotiate more than 6000 contracts for people who have encountered the most difficulties. Those in charge of people management have highlighted the commitment of workers who were referred by Fundación Integra and their perfect incorporation in the workforce. In 90% of cases, the assessment has been positive.

They also underscored that hiring people at risk of social exclusion does not merely represent an opportunity for them but that, because of their often complex past, they encounter greater problems when looking for a job. This also represents an exceptional opportunity for improving productivity at their companies in a socially responsible manner since these people "generally identify themselves with the company and demonstrate a high level of commitment".

.A.S.A. Austria's truck fleet is now klima:aktiv!

What does that mean? It refers to an improvement in energy efficiency of the entire fleet, as well as of the service quality for clients and the support of sustainability in the company.

MIT UNTERSTÜTZUNG VON

klima:aktiv mobil

klima+ energie fonds

lebensministerium.at

This is enabled through a funded project which has been initiated between the logistic management of .A.S.A. Austria and the Austrian Energy Agency, who have recently transferred funds to us with this goal.

In the project's realisation phase a telematics system (connected communication between information and communication systems) has been implemented which helps to save CO_2 emissions - the main goal of the funded project.

On each ride or tour all order and operational data are recorded via smartphones, which have been provided to all of our drivers, independent of the type of trucks used. In particular, the following data is generated and recorded; the driver's logbook (driver's report), working time (begin, end, pause) as well as operating data, such as collected material and its weight, mileage, vehicle conditions, barriers at service etc. The blackbox tracks the respective geodata.

This new system could replace all manual drivers' reports, now that all necessary information is recorded via smartphone. In this way a significant efficiency improvement could be realised. The detailed and prompt data capturing allows effective logistic management, through enhanced controlling possibilities with further and significant KPIs. Furthermore, the planning of routes can be improved by that information which leads, in ideal cases, to the saving of investments in trucks.

Additionally, exact time tracking with smartphones helps to generate the billable time for orders (earned hours) which are considered in price calculations accordingly.

This new system is a mobile solution (smartphones instead of fixed installed monitors in drivers' cabins) as it offers several advantages against stationary ones. One major advantage derives from the much lower investment costs of a mobile solution. Furthermore, smartphones can be used for taking evidence photos at customers sites, in case of difficulties (e.g. barriers when picking-up a container etc.).

> "The detailed and prompt data capturing allows effective logistic management"

In the future it can be used with further applications like scanning of equipment (containers, skips, press containers etc.).

This project is a successful example of efficiency improvement and applied sustainability in profitoriented companies.

CZECH REPUBLIC

Record results of the Competition with Mr. Popela

In the second half of June, .A.S.A. Czech Republic judged what is now already the 13th year of the competition to collect secondary raw materials known as "Competition with Mr Popela".

A record-breaking 98.520 pupils from 587 schools took part in the competition, collecting an unbelievable 3.605.276 kilogrammes of waste paper over the course of the school year. The aim of this environmental-educational project is to provide children the opportunity to think about the current condition of the environment and provide them with instructions on how they can contribute towards its improvement with their own efforts. The objective of the "Competition with Mr Popela" is the introduction of a permanent system of separate collection of paper in schools. The schools task was to collect as much paper as possible, which was then purchased at an agreed price. Running totals of amounts of paper collected were kept on the .A.S.A. website over the course of the competition, which allowed individual schools to increase their mutual level of competitiveness. When the competition ended – on 13th June – ten schools which had collected the greatest amount of paper were chosen from each region. Assessment took place separately for each region in two categories; according to the amount of paper converted to the amount per pupil and according to the total amount of paper handed in.

POLAND

.A.S.A. in Znojmo helps the blind

The City of Znojmo, together with the company .A.S.A. EKO Znojmo is making accommodations for its severely sight-impaired and blind citizens, by making orientation easier at the Znojmo bus terminal thanks to the installation of special navigation columns.

And how do these columns work? Blind or sight-impaired citizens have a transmitter either in their pocket or built directly into their white stick. On the transmitter are a number of buttons, which respond with a sound signal upon pressing. The device begins to speak and guides the citizens to the stop they need, where the column is located.

.A.S.A. Poland is socially responsible

According to .A.S.A. Group policy, we try to support local communities and initiatives in places where we operate.

In order to achieve this goal we have donated funds for equipping a playground located at the Primary School and Nursery Unit No. 16 in Zabrze, ul. Cmentarna, in the Zandka quarter, where a mechanical and biological waste processing plant is also located. Now the school has colourful and safe equipment that will surely give plenty of joy to the young users. For this kind of charitable activities, our Country Manager – Mr Jarosław Wywiał was awarded a UNICEF Child Rights Sheriff Badge, of which we are truly proud.

Servicios Ciudadanos

http://fccone.fcc.es/fcc/faces/oracle/webcenter/portalapp/pages/ofertasempleado/ofertasempleadolista.jspx?docName=UCM_5002206_ES&_adf.ctrl-state=14rdue4zbw_88&_afrLoop=670812716558782&_afrWindowMode=0&_afrWindowId=kfenna44q_213#%40%3FdocName%3DUCM_5002206_ES%26_afrWindowId%3Dkfenna44q_213%26_afrLoop%3D670812716558782%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dkfenna44q_237

Ofertas Inmobiliarias

Viviendas en Tres Cantos y Plazas de garaje en Montecarmelo

Descubre las ventajas para empleados!

Well-being

Convention on Safety

organized by the Port Authority of the Panama Canal

> “100 years of Occupational Safety and Health, looking to the future”

FCC Construcción participated in the Safety and Health at Work convention organized by the Port Authority of Panama Canal (ACP) within the context of the 100th anniversary of the canal. The slogan for this celebration was “100 years of Safety and Health at Work, looking to the future”.

Held on 18 and 19 September at the Centro de Capacitación Ascanio Arosemena of the ACP, FCC Construcción’s speaker at the forum was Juan Carlos Sáez de Rus, manager of Occupational Safety, Health and Welfare department whose speech was entitled “Promoting health at work, healthy employees in heathy jobs, an investment in the future”.

FCC Construcción had a stand at the convention which showcased the projects that is has built in several countries around the world including Central America. Informative brochures were distributed on several projects such as: Line One of the Panama Metro, Sections I and II of Brazil’s Via Corridor, its experience in conventional and high-speed railways, and on other projects.

A pocket manual was also distributed among the audience highlighting occupational safety and health measures that FCC has implemented at each of its projects.

FCC projects

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Safety and health: sharing experiences with other companies

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The topic of the working breakfast was the evolution that has taken place in road safety management at work and the problems encountered from the regulatory and business standpoint.

A practical laboratory was organized afterwards to showcase the latest progress achieved in reflective materials and high visibility garments. Other companies, such as Cemex, Metro de Madrid and Ifema also participated in this event.

Chronic fatigue syndrome,

a tiresome disease

Por el Dr. Román
Rodríguez Barriqüete

Chronic fatigue syndrome is a disorder which produces extreme and persistent fatigue, does not improve with rest, and is not caused directly by other diseases.

Causes

The specific cause of this disorder is not currently known even though it is suspected that it may be caused by a virus. According to some theories, it could be caused by:

- The Epstein-Barr or the human herpes viruses. Nevertheless, no specific virus has been identified in those suffering from this disorder.
- Inflammation of the nervous system due to a defective response of the immune system.

Other causes could play a determinant role in the onset of this disease:

- Age
- A previous disease.
- Stress.
- The genetics of the sick individual.
- Environmental factors.

This syndrome affects most frequently 30 to 50 year old women.

Symptoms

The main symptom of this diseases is excessive and persistent fatigue which does not improve with rest, limits day-to-day activities, has a negative impact on intellectual and physical activity, and which lasts at least six months.

Other symptoms:

- Feeling extremely tired during more than 24 hours after performing an exercise normally considered to be easy.
- A sensation of heavy arms and legs.
- Headache.
- Low-grade fever.
- Decreased memory and ability to concentrate.
- Joint pains without swelling or redness.
- Insomnia, irritability and depression.

Diagnosis

There are no specific tests to confirm the chronic fatigue syndrome diagnosis. The general procedure is a normal exploration with a negative response in all the tests performed on the patient.

The disease is diagnosed after the physician rules out other possible causes of fatigue such as:

- Drug dependence
- Autoimmune or immune disorders.
- Infections.
- Muscular or neurological diseases (such as multiple sclerosis).
- Hypothyroidism.
- Psychiatric or psychological diseases, especially depression.
- Tumours.

A chronic fatigue syndrome diagnosis should include:

- The absence of other chronic fatigue causes.
- At least four of the above-mentioned specific symptoms.
- Extreme and persistent fatigue.

Treatment

There is no current cure for chronic fatigue syndrome and the objective of the treatment is to relieve the symptoms. Many who suffer this disorder experience depression and other psychological problems that could improve if treated.

The treatment is a combination of the following:

- Cognitive-behavioural therapy and gradual exercise for certain patients.
- A healthy diet.
- Sleep management techniques.
- Drugs to relieve pain, discomfort, and fever.
- Anxiety drugs (anxiolytics).
- Drugs to treat depression (antidepressants).

Chronic fatigue patients are encouraged to have an active social life. Slight physical exercise can also be of help.

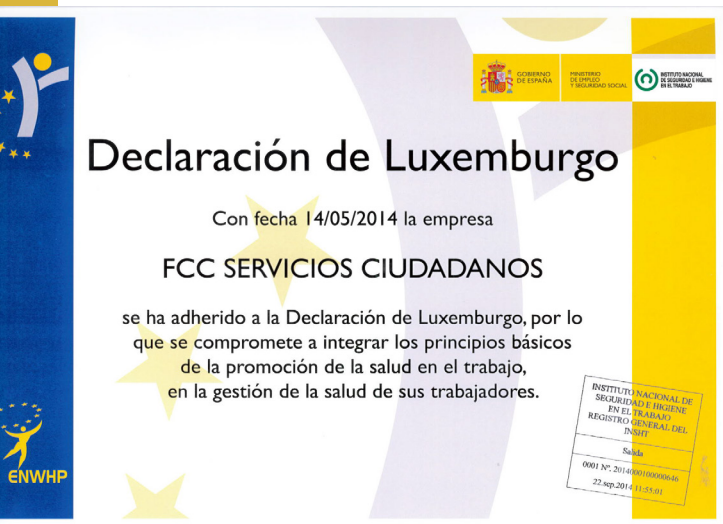
The recommendations are:

- Avoid doing too much on days when you feel very tired.
- Balance out the time spent in activities, resting or sleeping.
- Divide large tasks into smaller and more manageable tasks.
- Divide the more challenging tasks throughout the week.

Techniques for relaxing and reducing stress can also alleviate chronic pain and fatigue. Nevertheless, these techniques are not applied as the main treatment for this syndrome.

Prognosis

The long-term prognosis for patients suffering from chronic fatigue syndrome varies and it is difficult to predict the onset of the symptoms. Some patients recover completely within six months to a year. Other patients, however, never feel or perform as they did prior to the onset of the disease. Studies suggest that there are more probabilities of recovering if the patient is subjected to intensive rehabilitation.



Declaración de Luxemburgo

Con fecha 14/05/2014 la empresa

FCC SERVICIOS CIUDADANOS

se ha adherido a la Declaración de Luxemburgo, por lo que se compromete a integrar los principios básicos de la promoción de la salud en el trabajo, en la gestión de la salud de sus trabajadores.

ENWHP

FCC aligns itself with the Declaration of Luxembourg

As part of its commitment to incorporate the basic principles of workplace health promotion in managing the health of its employees, FCC has aligned itself with the Declaration of Luxembourg.

The consensus document was drafted in 1996 by all member countries of the European Network for Workplace Health (ENWHP) which sets out the guidelines and principles for the actions and measures to be implemented by the network.

Several European countries have already joined the Luxembourg Declaration initiative and have incorporated its principles in the corporate strategies and services rendered to clients and associates.

The theme website of the National Institute of Safety and Health at Work on the Workplace Health Promotion http://insht.es/portal/site/PromocionSalud/ includes a complete list of all the companies that have joined this initiative.

3rd Meeting of Cities for Sustainable and Safe Urban Mobility

The two-day congress was divided into several roundtables to promote and propose specific measure that contribute to creating a safer, healthier, and quieter urban environment, from different perspectives. FCC participated in the panel discussion on "Road Safety at Work" represented by David Martínez Sánchez, prevention technician at the Environment Levante II branch office and one of FCC's top collaborators in issues concerning road safety.

The meeting also served to stimulate different approaches with the appropriate guidelines to make it easier to secure financing from the European Structural Funds and other funds and programs managed directly by the European Commission.

The congress was inaugurated by the Director General of Traffic, María Seguí, who encouraged everyone to continue working towards the achievement of "sustainable, healthy, and safe" mobility and stressed the need to reduce the rate of accidents and pollution levels down to zero.

Recognition for the work carried out to promote equality

The technical team of the State Department for Social Services and Equality, attached to the Ministry of Health, Social Services and Equality, has welcomed the II Annual Report on Measures and the effects of the DIE 2011 Equality Policies submitted by FCC complying with the regulations on the "Equality in the Company (DIE) seal and the obligation of monitoring and assessing as contemplated by the terms and conditions of this distinction (Royal Decree 1615/2009, of the 26th of October).

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Section 12.1 of the above-mentioned Royal Decree contemplates the obligations of companies to actively encourage effective equality of men and women particularly complying with the obligation of improving the measures that warranted the award of the seal. Accordingly, every year companies submit a follow-up report detailing and providing proof of the actions that were carried out and the results obtained.

The Deputy Director for Equality in the Company and Group Bargaining of the Ministry of Health, Social Services, and Equality, Mercedes de la Serna, highlighted and recognised in her report on the conclusions, the work that FCC is carrying out to promote measures for the equality of men and women.

FCC and the Environment Unit, which were awarded the Equality in the Company seal in 2011, have presented several initiatives and

measures to encourage equal opportunities, the career promotion of women in management jobs, and actions against any discrimination and/or harassment based on sex. One of the lines of action, moreover, focuses on the fight against gender violence and incorporation in the workforce of women who have been victims of such violence.

FCC participated in the PRECOIL R+D+i risk prevention project

Programa INNPACTO

GOBIERNO DE ESPAÑA

MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD

Unión Europea

Fondo Europeo de Desarrollo Regional

Una manera de hacer Europa

FCC is working on the completion of the PRECOIL R+D project, new smart collective prevention systems in dynamic linear infrastructure environments, co-financed by the Ministry of Economics and Competitiveness and the European Regional Development Fund (ERDF) via INNPACTO 2011.

The basic project goal was to develop an environment in which devices and applications may be integrated that allow significant improvement of railway and highway construction work personnel safety, establishing a new framework for smart collective protection system deployment.

Sensors, such as accelerometers, distance and positioning meters are fitted to personnel and other types of sensors are fitted to machinery, creating an environment that is managed from a monitoring platform that permits work on the improvement of personnel safety and thus prevent accidents.

ISOLUX, CARTIF, GEOCISA, AITEMIN and the Madrid Polytechnic University are also participating in the PRECOIL project.

This project is framed within the innovation policy being backed by Grupo FCC. FCC Construcción is participating in the technological elements of the most significant works by preparing its own R+D+i projects and those for improving construction procedures which, in combination with support from available ancillary equipment, materials and means, will enable companies to provide their clients with a range of their own technical solutions that represent a differentiating factor in the overall sector.

In 2013, 9.11 million Euros were invested in R+D+i projects.

Knowledge

Cybersecurity needs at companies

Gianluca D'Antonio, the manager of Information Security at the FCC Group and chairman of the ISMS Forum, discussed the Cyber-ex experience at a seminar organised by the International Security Certification Consortium (ISC²)

The "SecureIberia: Securing the Enterprise" seminar was held on 16 September in Madrid, an event targeted at cybersecurity professionals to discuss the new cybersecurity-related needs of organizations and the change process from the traditional security perimeter. The key objective was to illustrate the latest trends in cybersecurity and the protection strategies implemented by companies.

The new overall concept on the security of the enterprise, applied to all processes, devises, and people, was stressed during this event. In the new cyber-threat environment, individuals and organizations are exposed to the risk of losing information or of having essential services interrupted.

This seminar offered the audience a complementary perspective on the most important organizational trends and how these affect corporate security management. The sessions discussed in depth issues such as criminal, social, and technological elements that are part of the threat panorama.

Those attending the event included Gianluca D'Antonio, manager of FCC Group's Information Security area and chairman of the Spanish Association for the Promotion of Information Security, ISMS Forum Spain.

Gianluca described the Association's experience in organizing the three editions of the Cyber-ex seminar, the first cyber-exercises in the Spanish private sector promoted and coordinated by ISMS Forum, CNPIC and INTECO, with the objective of bolstering public-private cooperation, the improvement of security, and the resilience of Information and Communication Technologies (ICT) in the private sector.

FCC's participation

FCC Group has been participating in these cyber-exercises since the first edition held in 2012. More than 16 leading Spanish companies participated this year, most of which

> "The new overall safety concept in the Company was stressed"

Gianluca D'Antonio during the 9th International Seminar of the ISMS Forum Spain.

are listed in the IBEX35 index, joining this initiative to share good practices and to improve the response capabilities and cooperation with public organizations involved in defending the cyberspace.

Numerous cybersecurity aspects were discussed at this year's event, including: acquiring more in-depth knowledge of enterprises and the design of security as a driver of change; the benefits of an environment using a great array of technological devises to minimise risks; the necessary collaboration with other professionals and members of (ISC)² and leaders in the information security field; direct relations with providers of solutions to compare; and, finally, to disseminate the latest technological developments.

infraestructuras medioambiente agua

En 100 años prestando servicios a los ciudadanos hemos visto cambiar muchas cosas, la primera de ellas al propio ciudadano.

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

Lo estamos haciendo juntos.

www.fcc.es

FCC
Servicios Ciudadanos

Cybersecurity benefits and improvements

Security nowadays must be embedded and visible in the supply chain; that is, in the development cycle, manpower, employees, and in the proliferation of points of contact with clients.

As a company evolves, many changes take place that must be taken into account as well as the company's positioning in relation to security since it is one of the most fragile structures and is constantly exposed to threats.

It is necessary to know the level of maturity and efficiency of organizations in managing cyberthreats and identifying the points that are subject to improvement, and to test the systems and know the response of the human team in a realistic scenario so as to be able to assess the impact of a cyberattack on ICT infrastructures and business operations.

The meeting's objectives:

- Provide the following benefits to the participants:
  - Improve the participants' response capabilities.
  - Shore-up coordination among entities.
  - Increase awareness on the risks at all levels.
- Assess and improve the following aspects:
  - Resilience in the event of an attack affecting information assets.
  - The exchange of information among entities as a sign of maturity.
- Encourage the involvement of the following profiles:
  - Middle and senior management, as a priority
  - Response technical team in the event of incidents as a necessary element.

It's not used mineral oil it's .A.S.A. Lube

Have you ever know that .A.S.A....?

.A.SA Abfall Service has created a raw material brand for used mineral oH, known as .A.S.A. Lube Urban Mining instead of recycling - extracting value out of waste. Urban Mining is the new trend-extracting resources from anthropogenic deposits, exploring and processing secondary raw materials. What is currently in vogue for copper has been a standard practice since the 1990's for glass and paper and can be extended to numerous other fields.

Created for highest requirements

In Austria, .A.S.A. is engaged in collection of used mineral oil, originated from gas stations, car workshops, industrial companies or truck fleets, and distributes this material to our destinations such as oil refineries as well as power and heating plants.

And yet, used mineral oil as a raw material is not a second choice product. Due to its material properties it can be used and subjected to the highest quality requirements, for example, in professional motor sports. .A.S.A. Abfall Service AG has now given its product a name, for the first time, secondary raw material oil is delivered to the customers as a brand – .A.S.A. Lube.

.A.S.A. Lube is the outcome of an intense marketing project, where .A.S.A. analysed the market situation for the application of used mineral oil in Austria and Europe, studied the concept of B2B marketing and conducted detailed need-analyses with our main partners during personal interviews. .A.S.A. Lube stands as a brand that reflects the needs of our customers for a tailored quality and secure supply. These two main needs are symbolised in the brands name logo.

Secondary raw materials are no longer considered second choice products, they

© Achim Banck

> .A.S.A. Abfall Service has created a raw material brand for used mineral oil, know as .A.S.A. Lube

> Urban Mining instead of recycling-extracting value out of waste

are already first choice material. In many areas secondary raw materials can offer excellent quality and reduce the dependency on primary resource markets“, says Dr. Bertram Laub, responsible group-wide for Material Management.

1 litre of used oil converts to 0,7 litres of base oil

Crude oil is becoming scarce; with the help of innovative processes, high quality base oil for use in the production of lubricants for modern high-performance combustion engines, can be distilled from used oil.

Energy consumption is just half of that needed for lubricant production from crude oil. From 1 litre of used oil, 0,7 litres of „new“ base I oil for engines, gears and hydraulics is produced. The quality is much higher than that of base oils produced from crude oil. Approximately 3 million tons of used oil are collected yearly in the European Union, yet currently more than half of the collected amount is still incinerated rather than recycled.

“For us, used mineral oil is not waste any more, it’s an important resource, an industrial commodity which is traded and handled. We see used materials, like used mineral oil, as raw materials that are reintroduced into a production process to counteract the scarcity of resources. It’s our opportunity to implement and expand collection infrastructure for used mineral oil in all .A.S.A. countries, in order to strengthen our position as market leader in CEE” emphasises Björn Mittendorfer, CEO .A.S.A. Group.

Urban Mining, a new recycling

Urban Mining, a modern recycling process, decreases the dependency on primary

market resources and reduces costs, as well as environmental pollution. Puralube – the international refinery partner of .A.S.A., has already processed 1 million tons of used oil into high quality base lubricating oil. “Apart from an important contribution to resource extraction, we were able to save 3 million tons of CO_2 emissions and hence contribute to world climate protection“ said Dr. Sönke Möhr, Puralube Germany GmbH.

Due to the increasing demand for base lubrication oil out of used oil, .A.S.A. has introduced 14 new rail tank wagons for the environmentally friendly transport of the used oil to the refinery. 1,2 million litres of used oil can be transported for recycling with these wagons at one time.

More than 40.000 tons

More than 40.000 tons of used oil is collected yearly in Austria and more than 90% of used oil collected by .A.S.A. is already being recycled.

From used oil to high-performance sports motor oil

Cooperation. From left to right: Jens Wendland (Baufeld-Öl GmbH, Germany), Dr. Bertram Laub (.A.S.A. Abfall Service AG, Austria), DI Andreas Schüppel (Puralube Inc, USA), Dr. Sönke Möhr (Puralube GmbH, Germany).

From used oil to high performance motor sports oil f.l.t.r.: used mineral oil (.A.S.A.), base oil (pur60), motor sports oil (premium).

At the refinery of Puralube site in Germany, every year over 150,000 tons of used oil are processed by using catalytic hydroprocessing into base oils of the highest quality using the HyLube™ patented method developed by UOP (Universal Oil Products, a Honeywell company).

The HyLube™ process is a patented catalytic process for refining used lubricating oils to produce high technology lube base stocks.

In this refi ning process, in which used mineral oil is processed in a pressurized hydrogen environment, more than 70% of the used oil is converted to high quality base oil products. Puralube produces and distributes up to four different viscosities of top-quality, highgrade base oils for the European lubricants market. These products not only meet strict industry specifi cations and tough environmental standards, but are also implemented in motor sports.

“We are glad, that we have found a reliable partner with .A.S.A. that helps us to establish and intensify our projects and activities together in the CEE countries” says Andreas Schüppel, CEO Puralube Inc. USA.

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Guest Column

By: Rafael Fernández
FCC Industrial
Manager of the LNG and
Industrial Projects Division

Liquefied natural gas tanks;

wagering on the future worldwide

FCC Industrial has the capabilities and the technical and human resources necessary for designing, building, operating and maintaining different types of industrial project, including natural gas regassification plants, liquefied natural gas (LNG) storage facilities, and renewable energy production plants (thermosolar and photovoltaic).

We are able, with these projects, to bring energy to citizens and industries, promoting local economic growth and the market synergies, all within the framework of sustainability and socially responsible growth.

In respect of liquefied natural gas, FCC Industrial has broad experience in building LNG tanks. It is the company that has built the most number of thanks of this type in Spain (seven projects in the last twelve years) and is also currently involved in several projects in Europe and America.

These types of facilities are built in industrial port areas due to the strategic location that facilitate its transport and distribution to the regions where there is demand.

Liquefied natural gas from methane tankers are downloaded at the LNG storage plants. The process is performed when the gas is in a liquid state since its volume is 600 times less than in its gas form. In order to maintain the gas in liquid form, the temperature of the tanks must be 163º C below zero.

The tanks are built following the Total Containment System (Double Containment). Each tank is built with an internal cryogenic steel tank (containing 9% of nickel) and an external deposit consisting of a steel enclosure and prestressed concrete wall, also with cryogenic properties.

Once natural gas has been stored in its liquid form, it is transformed into gas by means of a vaporizer system (regassification process) and is then injected into the gas pipeline network for its consumption.

Natural gas is an environmentally-friendly fuel that can replace other petroleum-derived fuels in the industry, in energy production, sea transport, and is a fuel that contri-

> “Natural gas is an environmentally-friendly fuel that can replace other petroleum-derived fuels in the industry”

butes to reducing the emission of particles, sulphur dioxide, and carbon dioxide produced by these activities.

LNG tanks are a wager for the world’s future. The ease of storage and transport from the harbour make it a solution adapted to a more sustainable and liveable world.

FCC to build a Liquefied Natural Gas terminal in Finland

FCC Industrial, the specialist industrial project company of the Public Services Group, has been awarded the contract to build a Liquefied Natural Gas (LNG) storage tank at the Port of Pori, Tahkoluoto Harbour, on the west coast of Finland. The client is Skangass, a leading LNG operator in the Nordic countries. The project has a budget of 30 million euros.

The new terminal will have a storage capacity of 30,000 cubic metres and is set to be ready for use during the last quarter of 2016. Over 250 full-time jobs will be created during the project’s deployment phase and, once it has been completed, around a dozen people will work directly at the new terminal and another fifty in related indirect jobs.

The Place

One of the most ambitious waste management operations ever undertaken in Spain

FCC Ámbito decontaminates the Bailín landfill site in Sabiñánigo (Huesca)

From left to right: Araceli Mir, Environmental Monitoring technician at the Project; Javier Corral, Project manager;, Carlos Lobato, Environmental Monitoring assistant; Alberto Biurrum, supervisor. Below, other colleagues who participated in the Project.

The arrival of men in the Moon was certainly one of the most important achievements of the human race. On 20 July 1969, man was able to exit the orbit of the Earth for the first time and enter the intergalactic space. American astronauts Armstrong, Aldrin and Collins arrived at the Earth's satellite and, before returning, remained there for more than two hours where they collected 22 kilograms of lunar dirt and rocks, materials of great value for scientific research.

The trip to the Moon and the Bailín landfill site have little in common but, with some imagination we could find similarities between these two feats. The first of these similarities could be the way the astronauts and the Bailín operators dress, and the second their work in picking up rocky material, even though the properties may be quite different. What both projects have in common, however, is the commitment and dedication of the human teams, incommensurable in both cases.

> "Significant environmental and safety measures during the execution of the project"

What is lindane?

Lindane or hexachlorocyclohexane (HCH) is an organochlorine pesticide used as an insecticide in agriculture to treat lice and scabies in humans as well as various parasites in cattle which in high concentrations poses a threat to health and the environment.

The people who have been at the helm of the Bailín landfill site project in Sabiñánigo (Huesca) are: Julián Imaz, manager of the joint venture and of the Aragón branch office; Araceli Mir, head of research; Javier Corrales, project manager; José Mª Celaya, head of the Soil Decontamination Department, all of them great professionals who have demonstrated their expertise and great ability to respond quickly.

The operation involving the dismantling of the Bailín (Sabiñánigo) landfill site, the most contaminated spot in Aragón where more than 200,000 cubic metres of soil containing lindane was buried, was successfully completed after a short but intense period of work. Hazardous waste was stored in a new safety cell which was permanently sealed to prevent further filtration in the subsoil.

Pyrenees in Aragón

Sabiñánigo, a small city in the Pyrenees in Aragón, became an industrial site in the first third of the 20th-century thanks to the presence of water which made it possible to generate hydroelectric power. From the start, it was a major player in the basic chemical industry. This success story takes place in the outlying areas of Sabiñánigo.

In 1975, the chemical plant installed in Bailín started to produce lindane. This activity continued until 1994 when the factory was closed. Part of the waste from this output was deposited in the Bailín landfill site in the outskirts of the city without implementing the appropriate insulation measures. It is estimated that about 30,000,000 tons of lindane and other pesticides in solid state were deposited at the site.

The landfill site had been built without performing the work for its adequate conditioning, insulation, and elimination as required by current regulations for the production of these types of products and lacked the proper environmental protection systems. As a result, it became a source of contamination for the environment, fauna and flora.

The environmental monitoring program of the Government of Aragón detected the presence of liquid lindane in the aquifer under the former waste deposit which was near the voluminous Gállego River. After some time, there were several incidents of contaminated leakage and the situation became increasingly more dangerous.

After confirming the seriousness of this situation, it was agreed that the only alternative to control this contamination was to dismantle the principal source, the former landfill site, and transfer the waste to a new safety cell. In order to do this, it was necessary to execute a project for addressing the problems at the site, considered one of the most ambitious waste management operations undertaken in Spain.

An accomplished team

The project, managed by FCC Ámbito, was executed in three phases with more than 50 people working in different shifts and with all the necessary safety measures required for this type of work.

FCC's experience in soil decontamination

FCC began its soil decontamination activities practically coinciding with its industrial waste treatment business.

The activity includes all the possible work performed in this field, from the characterization of soil and underground water to the design and execution of remediation measures on-site or externally.

The company has its own resources and multidisciplinary teams which are specialists in this sector.

Maria Jesús Kaifer, technical manager at FCC Ámbito.

The complexity of the work requires the strong involvement of the team in order to achieve the objectives within the required timeframe and at the estimated cost.

Even though the recurrent activity in this sector has dropped 70% since 2008, FCC remains the leading company and is working on two of the most important projects put out to tender, one of the decontamination of the Flix reservoir and another one the work being carried out at the former HCH landfill site in Bailín (Sabiñánigo).

The work carried out in Bailín is an example of the excellent coordination of the entire team that was involved in the execution since, according to AA1 requirements, it was necessary to complete the project in five months to take advantage of favourable weather conditions and minimise the possible impact on the environment.

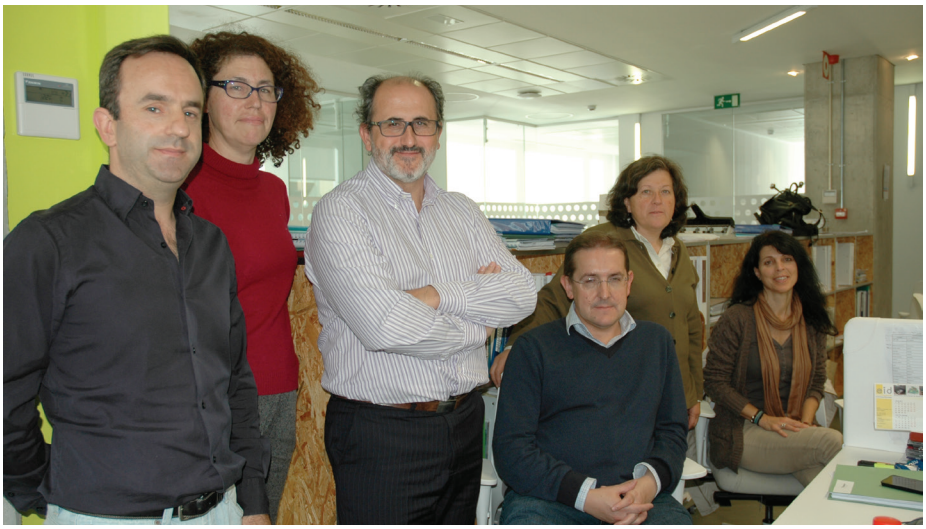
Araceli Mir, head of Reseach

"We did it!"

Bailín, as a region at the feet of the Pyrenees, is known for its exuberant vegetation and no one could imagine that it is the home of a landfill site for waste generated in the production of pesticides (lindane), which are now banned because of their toxicity. We are talking about 420,000 tons of waste of which 66,000 tons corresponded to pure lindane waste.

The landfill site sits directly on the ground without any protection whatsoever. The geological characteristics of the subsoil allowed the liquid waste to seep into the permeable sandstone layers and the web of cracks in these layers. The waste reached the aquifer, contaminating it and, since this waste is heavier than water, it filtered through the entire rock massif and contaminated it. Solid waste also affected the aquifer through leaching.

Although the decontamination of the aquifer has been ongoing since 2004, it was necessary to remove all waste to prevent further contamination. This task, which was not the first carried out in Spain, required that it be conducted in the less rainy season, that is, from mid-May to the end of September. Only four months, but we were able to do it.



Part of the team that participated in the decontamination project.

At the helm of the project and under the supervision of María Jesús Kaifer, technical manager of FCC Ámbito, and of the manager of the project's joint-venture, Julián Imaz, also manager of the Aragón branch office, was Araceli Mir, head of Research, Javier Corrales, project manager, José Mª Celaya, head of the Soil Decontamination Department. Also participating in the project were Guadalupe Bobadilla, manager of the Prevention, Quality, and Environment Department; Ivan Botamino, head of the Land and Landfill Sites Engineering Department; and Lucila Bellido, technician at FCC Ámbito. The other collaborators included Victoria Nonay from the Prevention Department; María Ángeles de Miguel, from the Adminis-

The removal of waste from the landfill site and its deposit in a new cell with the most stringent safety measures will significantly improve the enviroment in Bailín and, accordingly, the surroundings of Sabiñánigo.

Versaflo

tration Department; and, Miguel Ángel Díez, draftsman.

Special Safety Plan

Because of the hazardous nature of the materials, a special safety plan was implemented which included the separation of the landfill site areas into white and black zones, special equipment for workers and the appropriate health controls. All of those involved in the project had to access the black zone by firstly passing through the white zone and vice versa, all with precision, complying with the protocol. They also had to follow the instructions given by those in charge when donning the protective gear that they had to wear in order to prevent the health risks associated with their daily work at the landfill site. A strict control system was implemented at the area known as the black zone to prevent dangerous lindane particles from escaping outside.

Three phases

The first phase involved the construction of a new safety cell and ancillary infrastructures.

The second phase, which was executed completely in 2014, consisted of the dismantling of the lindane landfill site generated by the former factory and the transfer of waste and contaminated soil from the former waste deposit to the new cell as well as waste management and cleaning of the dismantled area.

The dismantling of unnecessary infrastructures will be tackled in the third phase, as well as the definitive sealing of the new safety cell

Safety in Bailín

From the standpoint of safety and health, the work carried out at the Bailín landfill site was particularly sensitive due to the types of waste which included mainly Lindane in addition to benzene and organochlorine agents, all toxic and harmful toxins, some of which are also carcinogens.

This meant that, besides the normal safety measures for a project of this nature, it was also necessary to implement special and additional measures to ensure that workers were not contaminated with the substances found at the landfill site.

Guadalupe Bobadilla, manager of the Prevention, Quality, and Environment Department .

FCC's medical services and FCC Ámbito's Shared Prevention Service established exceptional occupational health and hygiene monitoring measures.

Specific medical check-ups were performed before the work was executed in addition to halfway through the project and at its completion. There were also detained protocols and organizational measures (white and black booths) to ensure that the personal protection equipment (PPE) was worn, used, and removed correctly.

Because of the discomfort caused by the use of this EPI during the summer months it was decided to purchase monitored equipment with specific filters to ensure that the air was clean and to cool off the interior of this protective gear.

Diagram of the sub-superficial water drainages.

Final status of the temporary waterproofing work.

Equipment for controlling the spread of particles: High volume catcer of partilces of less than 10 micras (forefront) and catcher of sedimentale particles of more than 30 micras. (in the background).

and the restoration of vegetation in the dismantled zone.

The size of the new cell is large enough for the storage of all the waste from the lindane landfill thereby ensuring its stability over the long term.

Throughout the entire project, several trucks were used to transfer more than 200,000 m3 of materials (about 420,000 tons) from the old deposit to the new cell. Of this amount, 65,000 tons were lindane. The trucks were not allowed to leave the premises until they were thoroughly cleaned.

In order to protect the water underground and right under the surface, the new cell has two permanent drainage networks installed at different depths. This water flows into several deposits making it possible to control and characterise before flowing back into the surrounding areas. FCC Ámbito has implemented waterproofing and control solutions beyond those required by current law in this respect.

> “200,000 cubic metres of treated materials, about 420,000 tons, were transferred of which 65,000 tons were pure lindane”

It also built a conditioning and transfer plant at the foot of the former lindane waste deposit for the treatment and load of waste under the conditions required for the safety of the environment.

The different types of materials that were extracted and removed were analysed and treated according to their respective characteristics in order to optimise the safety conditions during its transfer and ensure future stability. Several treatment processes were implemented, such as:

- The encapsulation of HCH powder waste in big-bags.
- Physical-chemical stabilisation of sludge.
- Decanting of liquid waste for its treatment and elimination at authorised treatment facilities.

Waste was classified according to different categories:

- Industrial waste, consisting of HCH in its pure powder form or mixed with other materials.
- Liquid waste produced in the lindane manufacturing process.
- Sludge (one of the isomers of lindane).
- Solid urban waste and voluminous waste (polyethylene, other plastic materials).

Control measures

To prevent contaminants from spreading during the excavation and transfer processes, several control measures were implemented. These measures included use of dry fog dust suppression systems; the temporary

Analyses performed

A total of 7,600 analyses were performed on 580 samples, these include:

- 52 samples of superficial water with an average of 58 parameters analysed.
- 22 samples of underground water with an average of 65 parameters analysed.
- 324 samples for controlling air quality with an average of 4 parameters analysed.
- 44 gas amples with analyes of 9 parameters.
- 73 analyses of soil with an average of 16 parameters analysed.
- 71 rock samples with an average of 6 parameters analysed.

sealing of the excavation areas with plastic sheets to avoid the generation of contaminated water and dust during adverse weather conditions; and stabilising the banks of the excavated areas at a height of 2.5 or 3 metres to prevent the materials from collapsing and generating dust.

Excavation equipment for loading operations was installed at a height above that of the trucks and other measures were implemented such as cleaning the paved surfaces and maintaining the dirt roads wet.

The contaminated water generated during the dismantling operations was deposited in an overflow chamber from where it was pumped to the waste water treatment facility situated at the same location for its treatment, control, and final discharge into the river in authorised conditions.

> “A special safety plan was implemented due to the hazardous nature of the materials”

Access to the fenced-off area

One of the most important aspects during the execution of this project was the implementation of the most stringent safety and cleanliness measures to protect workers at the work site during the dismantling operations.

In order to access the hazardous or the fenced-off area, a strict protocol was established for passing from the White/Black units to ensure that employees were duly protected.

A thorough monitoring system was defined for controlling and detecting any possible dispersion of particles and gases by installing several measurement equipment throughout the worksite and the outlying areas. An online alarm system made it possible to adopt the necessary control measures immediately.

Environmental monitoring was also supplemented by controlling any possible impact on the soil, surface and underground water in the surrounding areas.

To ensure that the support surface of the former landfill site area was completely free of contaminants, a Verification Plan was implemented to analyse the dismantled area.

Julián Imaz, manager of the joint-venture, focused on Institutional Relations with the Provincial Council of Aragón as well as with the public company Sarga. He was also in charge of the project’s administrative control.

European Mobility Week 2014

"Our streets, our choice"

468 Spanish cities participated in the event.

For yet another year, FCC was involved in promoting European Mobility Week 2014, disseminating the commitments acquired by administrations and local authorities and the sustainable alternatives for European citizens. The aim of these proposals is to encourage a change in behaviour and to promote strategies for more sustainable transport, improving mobility, health, and the quality of life of citizens.

European Mobility Week 2014 was based on an analysis of urban spaces and the relationship between the use of streets and quality of life. The slogan this year was "Our streets, our choice" to encourage people to create and participate in the model of the city where they want to live, one which they can enjoy. This year, 1,882 European cities participated to a greater or lesser extent, from Austria (with 532) and Spain, with 468 proposals. The most widespread events were bicycle rides, walks, sports events, and the celebration of a day without cars.

Urban trends: impact on health and the urban environment

There is currently a growing trend to recover city spaces and make these available to people instead of vehicles, reassigning and redesigning streets and public spaces, such as, for example, transforming parking areas into small parks, offering other activities such as sidewalk cafes, and adapting avenues into pedestrian walks which, in the beginning would be closed to traffic for a few specific days and finally, transformed into permanent pedestrian streets.

Besides adapting areas for pedestrians, other recreational activities are carried out, also facilitating sustainable means of low-impact transport such as walking or bicycling, all of which contribute to having more pleasant public spaces and cleaner air in the cities.

This transformation, in turn, increases the trend towards adopting other forms of transport since infrastructure for motor vehicles are no longer a priority. By changing the cities, we change the negative impact of traffic which affects the aesthetics of the city, safety, and the environment which makes it unpleasant to walk or to ride a bicycle. Reversing this situation encourages the search for motor transport alternatives that are more satisfactory and agreeable, contributing to healthier lifestyles.

Encouraging other types of transport which are more active has a direct impact on the health of the population. In the European Union, two-thirds of the adult population does not achieve the recommended levels of physical activity, a factor that contributes

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to health problems associated with excess weight, including cardiovascular diseases and orthopaedic problems. Walking, climbing stairs, running or bicycling are among the recommended daily activities. They are also feasible and affordable and what's more, these are activities that we can practice wherever we live, where we conduct our lives.

"Do the Right Mix" campaign

In fact, the Sustainable Urban Mobility Campaign of the European Union (2012-2015) promotes the advantages of multimodal transport: car, public transport, bicycle, and walking. The aim of the "Do the Right Mix" campaign is to highlight and disseminate the fact that by using different types of transport people can improve their health, their economy, and the environment.

Besides improving the quality of life by encouraging other types of mobility, it is also important to be aware of the harm and health problems that are provoked by traffic and which require an intervention in order to reverse the trend:

- Air pollution caused by conventional fuel, chemical products and other derivative compounds from automobiles are linked to health problems such as asthma, lung infections, cancer, reproductive disorders, and development problems in infants and children.

- There is also evidence on the connection between prolonged exposure to noise pollution and its negative impact on health. These health problems include high blood pressure and hypertension. A recent meta-analysis carried out by Germany's Federal Environment Agency demonstrated that traffic noise was a "major risk factor for cardiovascular diseases". Noise pollution is also associated with sleep disorders and affects cognitive performance, particularly in schoolchildren.

The mobility models that we practice and the city models that we want either contribute or diminish our quality of life and are directly proportional to motor traffic in the streets where we walk.

Furthermore, the impact of traffic on a built environment produces the following:

Impacts of greater traffic and traffic congestion on the quality of urban life

- Accidents: 40,000 deaths a year in European roads, with the rate of accidents 4x greater in urban areas in comparison with rural zones.
- Air pollution: Global warming, negative effects on health, higher public health costs, and erosion of buildings.
- Biodiversity: traffic pollution, noise, car crashes and the land that is used to build traffic infrastructures have a negative impact on animal species and on the vegetation that could be developed in cities.
- Decreased economic efficiency: traffic congestion, pollution and accidents result in significant direct and indirect costs.
- Energy consumption: the trends show that transport consumes 4% more energy every year which means that total use of energy doubles every twenty years.
- Equality: Nearly one-third of households in Europe do not have access to a vehicle. These people suffer the negative effects of traffic without receiving any benefits from mobility.
- Loss of economic activity: city centres, the traditional focus of economic activity face competition from areas with parking spaces which have less traffic in the outskirts of the city.
- Diminished urban space: infrastructures for motor traffic occupy large amounts of valuable land in city downtown districts and decrease the advantages of open spaces.
- Noise and vibrations: Transport is a great source of pollution and it has been proven to be the cause of health and environmental problems such as damage to historic buildings.
- Isolation: Congested urban roads plus the lack of sufficient alternative infrastructures can result in communities that are socially and economically isolated from larger urban areas.
- Visual intrusion: the aesthetic qualities of cities diminish as a result of parked vehicles and related infrastructures. This could have an impact on a city's potential as a tourist attraction.
- The dirt from exhaust pipes accumulate on the building façades and windows and this means cleaning costs.
- Acid rain due to air pollution corrodes the outdoor walls of buildings and damages statues and monuments.
- Traffic vibrations harm the structural integrity of buildings thereby increasing maintenance costs. It also destroys historic buildings that were never designed for facing the problems caused by motor traffic.

It is necessary to emphasise the balance between the mobility of people and economic growth and the need to respect the environment and to provide an acceptable quality of life for everyone. With less traffic,

our cities would e healthier and more pleasant places for us to live and work.

Urban trends, sustainable mobility: some solutions

The traditional solutions for greater automobile traffic has been to increase road space, increasing the offer to satisfy demand, increasing the number of traffic lanes, car park spaces, opening new roads, etc. at the expense of public spaces, homes and communities. Nevertheless, experience has shown that creating additional capacity for cars is not as effective as it seemed and it contributes to heavier traffic by the process known as "induction to traffic".

After creating more road space, because of there is less heavy traffic, people drive more to save time. In the long run, however, additional lanes are absorbed by new drivers and by those who have interiorised the message that traffic will be more fluid, thereby creating congestion levels similar or greater than the previous ones.

In many European cities, there is no more space left for expanding roads and people are becoming increasingly aware of the problems caused by the layout and design of cities to accommodate traffic and, therefore, they are searching for and promoting solutions that are more creative and that balance out the use of roads and streets.

Some of the measures that are being implemented are aimed at reducing the cost of public transport and, at the same time, improving the quality of services; improving infrastructures for bicycles and pedestrians; restricting access to certain types of vehicles, and providing carpooling incentives or car-sharing, all of which are making a great difference in European mobility.

"Living streets"

An example of a city that is revolutionising its mobility system is Ghent, a member of the Living Streets Initiative. Two streets in Ghent accepted the challenge of becoming "living streets" with three major objectives: try out sustainable mobility, create a different approach for public spaces, and encourage social interaction among residents. The sponsors of the initiative donated money to buy benches and decorations. Electric and chargeable bicycles and vehicles were given away, and travel by public transport or taxis was subsidised. During a few days, the streets became a social space and not merely the means used by people to go to their homes, work, or shopping. The city's Environment and Mobility Departments collaborated in organising meetings with the police force, in managing the provision of services such as waste collection, and in securing permits for closing the two streets involved. This initiative will be repeated over time and the goal is to gradually transform the city's lifestyle.

Did you know?

- That air quality continues to be a transport-related problem for most citizens, jointly with traffic congestion, noise and accidents.
- That the problems with road infrastructures can have serious economic repercussions particularly in urban areas that contribute around 85% of European GDP.
- That traffic congestion in European roads is mostly around the cities and costs nearly 100 billion euros a year.
- That Europe is the world's most urbanized continent and that nearly 70% of its population lives in cities.
- That the use of conventional automobile fuel continues to increase and that there are more and more households that own two, three or more vehicles.
- That increased car traffic in urban streets means greater demand for parking infrastructures at the expense of public space.
- That cars remained parked most of the time (the average time that a car is parked at home is approximately 80% of the time and about 16% parked in another place and in movement only 4% of the time).

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Communities

The Spanish fiesta par excellence takes place in Pamplona: the San Fermin festival, one of the most famous icons worldwide. Despite the sprint race to save one's life, throughout its long history, the event has evolved into long-distance race to overcome obstacles and to maintain its essence and long tradition.

the

gran fiesta

PAMPLONA

> “One of the city’s major attraction is to go to every bar and try the different tapas”

When Hemingway first came to Spain, like any tourist visiting a new destination, he could not imagine the great interest that would be sparked by the country and by Pamplona, in particular. The festive atmosphere, the Spanish personality and the bullfights seduced him in such a way that they became the backdrop for some of his best novels and also his second home.

It is easy to fall in love with this city in the north of Spain, founded by the Romans and crossed by the Road to Saint James. A modern and welcoming city, it offers a wide range of activities: strolling through its cobblestone streets, relaxing in its parks and terraces, savouring its delicious tapas at bars and taverns, visiting its historical monuments, and going to the bullfights and the running of the bulls, or admiring its traditional sports such as jai-alai.

History

Pamplona lies in a valley surrounded by mountains, a location that has always attracted human settlement. Tools made of stone from about 75,000 years ago have been found on the terraces along the banks of the River Arga. In the first millennium B.C., the area which is now under the city was already settled by Basques, the origin of the Basque name “Iruña” which translates into “the city”. The Roman general Gnaeus Pompeius Magnus, better known as Pompey, arrived in 75 B.C. and founded the city which followed the Roman urban model. He named the city Pomaelo and strengthened its functions as a strategic link between the Iberian Peninsula and the rest of Europe.

Banesto

> “A charming city, Pamplona is modern, with clean streets, and beautiful districts”

Since its birth, however, the city has experienced profound transformations, always expanding and recording significant urban, economic and social-cultural growth. It has become a city offering a many social, educational, and health services, spaces dedicated to leisure, and industrial and communication hubs. It is a modern city with an excellent quality of life.

Gastronomy

One of the city’s major attractions, its cuisine has gained an excellent reputation over time thanks to the variety of its recipes, the richness and quality of its ingredients, and the exceptional combination of the original and local elements of northern Spain and its subtle French influence.

One can visit each of tapa restaurants, all of which are located near each other, to try the different “pinchos”. The tradition among the locals is to cover this route with friends

FCC’s work during the San Fermin festival

The services that FCC has been providing to the Pamplona city council during the San Fermin festival has evolved over time to adapt to the needs of its residents:

- 3 waste collection truck brigades with 25 operators and 9 brigades with 84 operators for manual sweeping.
- 14 brigades with 38 operators for washing the streets.
- 3 sweeping machines, 3 sidewalk washing equipment, and 9 operators for mechanical washing.
- 4 control supervisors.
- 11 operators and 5 people in charge of support services.
- 8 operators in motorized brigades.
- 4 operators for vertical cleaning operations.

The cleaning services start at 4:00 a.m. and are finished by 8:10 p.m. The following services are provided in the areas between the historic district, the Ensanche, and the areas close to the festival sites.

After the San Fermin Festival:

Cleaning does not just end when the San Fermin festival is over. The Citizen Services Group continues to provide its services after the fiesta to improve its quality and to extend the special cleaning services in more areas in Pamplona:

- Emptying and intensive cleaning of trash bins.
- Parking cleaning brigade.
- Reinforcement at Antoniutti park.
- Cleaning of elevators.
- Safety support for waste collection trucks at the Historic District.
- Intensive washing after the San Fermin festival, reorganizing the services.

FCC provides cleaning services in the Pamplona Region which comprises 50 towns and a population of 360,315 inhabitants.

> Hemingway: the San Fermin festival left a deep emotional impression

and enjoy the different culinary offerings in the afternoon and evening before lunch or dinner, a custom that is commonly known as “chiquiteo”.

Fiestas and culture

The bullfights and running of the bulls became one of Hemingway’s greatest passions. For him, this fiesta represented the supreme struggle which pitted man against an animal in a unique life and death event.

The festival of San Fermin is perhaps the most exceptional and impressive event in Pamplona. The fiesta takes place in the beginning of the summer season against the incredible backdrop and where nearly all of the city’s residents go out dressed in white with a red scarf tied around their necks to watch the spectacle or to participate by risking their lives and running in front of the bull.

Pamplona’s major festival kicks off at noon on the 6th of July with the “chupinazo”, a rocket thrown from the balcony of the City Hall. As of that moment, one can enjoy the 9-day celebration in any part of the city, but particularly in the historic district where many different activities take place.

One of the greatest attractions of this festival is the famous “encierros” or running of the bulls which begin after two rockets are launched from the Santo Domingo corrals. The origin of this tradition dates back to the time when it was necessary to take the bulls to the ring for the bullfights in the afternoons, another not-to-miss event in this fiesta.

The parade of the “giants and big heads” is another attraction. The giants are four couples (king and queen) standing 4 metres tall which represent the “four parts of the world” (Europe, Africa, Asia and America). These characters are accompanied by 5 “cabezudos” and 6 “kilikis”.

A charming city, Pamplona is modern, with clean streets and beautiful gardens, a well-kept historic district that is reminiscent of the city’s past. All the surrounding areas offer incredible landscapes and there are many typical towns which offer visitors many surprises and a clue to the sometimes forgotten essence of the real Spain.