# Communication Network

News for the people of rcc





Koplowitz honoured with the CEAL award for FCC's growth in Latin America





Panama, a key enclave



The Group Appointments at FCC Pág 4



#### Business

"Same values, same vision" .A.S.A. at the ISWA Congress in Vienna Pág 10 Aqualia Infraestructures participates in International Desalination Congress in China Pág 11 FCC to upgrade San José airport in

Costa Rica for 25 million euro Pág 14



#### People

FCC executes a contract for the construction of the Riyadh metro Pág 19

## Social Responsibility FCC Aqualia, the first Spanish

companies that certifies its carbon footprint in Spain Pág 38 FCC assesses and highlights the Group's socially responsible performance Pág 40





#### Well-being

FCC employees and family members participate in a Children's Road Safety Seminar Pág 44 "Run for the child's sake" Pág 47 Prevention of cardiovascular diseases Pág 50



Knowledge Upgrading and management of the public lighting service in Santa Susanna (Barcelona) through an Energy Services Company (ESC) mode Pág 54



The Place Panama, a key enclave Pág 58



Communities Znojmo and the wine festival Pág 74

# The Group

# Appointments at

## **Board of Directors**





**GONZALO RODRÍGUEZ MOURULLO** and **OLIVIER ORSINI** Designated members of the Appointments and Remuneration Committee

#### **GONZALO RODRÍGUEZ MOURULLO** is one of Spain's most prestigious jurists. He holds a PhD in Law from the Universi-

He holds a PhD in Law from the University of Santiago. He is currently a professor emeritus at the Autonomous University of Madrid and a full member of the Spanish Academy of Jurisprudence and Legislation. He was awarded the Castelao medal, the highest honour granted by the Galicia regional government, for his contribution to jurisprudence. He has been a member of the Madrid Bar since 1962. **OLIVIER ORSINI** is currently Head of International Development at Électricité de France (EDF). He was formerly Chairman of Proactiva, from December 2002 until June 2013, when Veolia, one of the founding shareholders, acquired FCC's 50% stake. Orsini has been general secretary and deputy general manager of Veolia Environnement, the world's largest environmental services group, where he spent almost his entire career up to April 2012. With a degree in Applied Economics, he is a graduate of the École Supérieure de Commerce in Paris and has extensive international experience in environmental services and infrastructure management.

## **Environmental** Services



AGUSTÍN GARCÍA GILA, chairman of FCC Medio Ambiente. As executive chairman, he replaces José Luis de la Torre, who is retiring after 44 years' service. García Gila, who graduated in Industrial Engineering from ICAI, commenced his career as a project engineer at Material Auxiliar de Electrificación (MADE) in 1979. Two years later, he transferred to FCC, where he gained experience at all levels of the Environment division, from Supervisor to his current position as General Manager.



JORDI PAYET PÉREZ, general manager, he replaces Agustín García Gila, recently appointed chairman of FCC Medioambientales. Payet Garcia is an industrial engineer with a degree from Escuela Técnica Superior de Ingeniería Industrial de Barcelona (ETSIIB) and a PADE degree from IESE. He started his professional career in 1980 at IFAC, a company engaging in installations, joining FCC a year later at the Department of Studies and Projects of the East Andalucía branch. In 1983 he was appointed Production Manager at the Sewage and Industrial Cleaning Department in Barcelona and subsequently as the Representative of the Tarragona-Lleida Environment office. In 1988 he held the post of director of the Levante I Office of the Environment division in Tarragona-Lleida and in 1996, the director of the Zone I of the environment Division with six branch offices reporting to him, the job he has held until now.



JUAN RICOTE GARBAJOSA, financial director of Environmental services, he succeeds Alberto Alcañiz en the Environmental Services Area. Ricote Garbajosa has a degree in Economics and Business Administration from Universidad Autónoma de Madrid. He began his professional career in 185 s an Accounting and Tax advisor. In 1988, Ricote held the post of Administrative and Financial Director at the French multinational ALGECO. He joined FCC Medio Ambiente in 1990 where he occupied several posts, firstly as the head of the Accounting Department in the Urban Environment Division in 1990 and later as head of the Department of Verification and Integration of the Balances, Urban Environment Division. In 1994, Ricote Garbajosa was appointed director of the Administration Central Services the Environment Department, the job he has held to date.



**PAU MARTÍN ZAMORA,** director of Zone I, replaces Jordi Payet. An Industrial Engineer graduate of the Technical Escuela Técnica Superior of Industrial Engineering in Barcelona and with an MBA degree from ESADE, Martín Zamora began his professional career in an electronics company. In 1975, he joined Agromán as the head of Building Projects where he worked until 1982. In 1983 he joined FCC where he held several jobs as head of the services department in Barcelona and as head of Production, among others, until being appointed the director of the Barcelona Capital and Balearic Islands offices, the post which he currently occupies.





LUIS SUAREZ ZARCOS, director of Human Resources. This is a newly created post In accordance with the new organizational model, reporting directly to Agustín García Gila, the chairman of Environmental Services. Suarez Marcos has a law degree from the Universidad Complutense of Madrid and began his professional career in 1990 as a labour lawyer for Santa Bárbara de Industrias Militares. In 1991 he joined FCC as the Manger of the Labour Relations Department, the job he held until now.



#### EDUARDO GONZÁLEZ GÓMEZ,

non-executive chairman of FCC Aqualia. After graduating in Industrial Engineering from the Technical University of Madrid, he began his career at Iberduero (later Iberdrola), where he held a range of senior management positions in operations and at the parent company. He is also a former chairman of the Spanish Nuclear Industry Forum and of Foratom. In 2008, he joined FCC as chairman and general manager of the Energy division, a position which he currently holds.



#### FRANCISCO JAVIER MARTÍN GARRI-

**GA,** director of the Barcelona Capital and Balearic Islands branch office, he replaces Pablo Martín Zamora. An industrial Engineer, he joined FCC in 189 as a degree-qualified technician in the Urban Sanitation Production Department. In 1993 he was appointed manager of Musersa a joint partnership with the Girona City Council, and in 1996 as the Manager of Public Cleaning and Waste Collection department in Barcelona, the job he occupied until now.



FÉLIX PARRA MEDIAVILLA, general manager of FCC Aqualia. He graduated in Geology from Madrid Complutense University in 1977. From 1980 to 1993, he worked at Geoservices, S.A., an oilfield services multinational. In 1993, he joined the Générale des Eaux Group (currently Veolia) in Spain, where he was deputy regional manager for Andalucía, head of development, and finally regional manager for Central Spain from 1998. In 2000, he was appointed manager for Central Spain by Agualia. At the end of February 2013, he was appointed Deputy General Manager of FCC Aqualia.



ANTONIO ALFONSO AVELLO, deputy manager - International. Alfonso Avello, who holds a degree in Civil Engineering from the Technical University of Madrid, also has an MBA from Wharton and spent the early part of his career at Dragados and Goldman Sachs. In 2008, he joined FCC as executive advisor to the CEO. In 2010, he was appointed General Manager of FCC Construction's industrial subsidiaries and in 2013 he became managing director of Alpine Energie, a position which he will continue to hold alongside his new responsibilities until that company is divested.



#### ISIDORO MARBÁN FERNÁNDEZ,

Financial Director of FCC Aqualia. Marbán has a degree in Economics and Business Administration from Universidad Autónoma de Madrid and broad post-graduate studies. He joined FCC in 1987 with various functions and ressponsbilities at the national and international level in the FCC Groupjs Finance area.





#### JAIME FREYRE DE ANDRADE CALONGE,

director of the FAST Consortium (Riyadh Metro). A graduate in Civil Engineering from the University of Cantabria, Freyre de Andrade Calonge started his career at FCC in 1999, where he has worked as site supervisor, regional manager and, in the last two years, head of the US and Canada zone. In his new position, he will report hierarchically to the Head of Middle East and Subsidiaries at FCC Construction.



#### ÁLVARO SENADOR-GÓMEZ LÁZARO,

director of the Construction Joint Venture (CJV) for the Riyadh Metro project. A graduate in Civil Engineering from the Technical University of Madrid, he also has an Executive MBA from ESIC Business School. Since joining FCC in 2000, Senador Gómez-Lázaro has held a number of positions, including production manager, site supervisor, department manager and Head of Business Development for the Americas I area at FCC Industrial. In his new functions, he will report hierarchically to the director of the FAST Consortium.



**MARINO POYATOS TAJUELO,** head of Human Resources for the FCC Industrial division, reporting directly to Pablo Colio Abril. Marino has a law degree. He joined FRCC in 1998 at the Eurohandling, a joint partnership where FCC participates, in Lanzarote. Two years later he was appointed head of Labour Relations at FlightCare, a job he held during 5 years. In 2005, he was appointed Manager of Human Resources of the division, a post he held until 2011. Since then, he has been a part of FCC Central Services holding several jobs in the Labour Relations area.

As of 1 December, Marino will be in charge of the Human Resources area for FCC Industrial investee companies with the support of the current team.



#### GUILLERMO MOYA GARCÍA-RENEDO,

director of Real Estate Management and Development. A graduate in Civil Engineering from the Technical University of Madrid, he holds a Master's degree in Economics and Finance from Columbia University (New York). Moya García-Renedo began his career as project manager at ACS, then transferred to Macquarie, where he worked in New York as an investment manager in 2008 and 2009. He returned to Madrid as an investment executive at Atlas Capital and joined FCC as executive advisor to the Chairman and CEO in 2010. To date, he was Director of Investments.

## **Central** Services



**ROMAIN DVORAK,** Corporate Director of Management Control, Budgeting and Planning within the Finance area. Dvorak graduated in Economics and Business Studies from ESSCA in Angers, holds an MBA from Murdoch University (Australia) and completed the Advanced Management Program (AMP) at IE Business School. Before joining FCC, he was Controller at Avincis (owned by US private equity firm KKR) based in London. For more than twelve years, he held several positions in the Control area in the Alstom Group in Europe and Asia.

#### **Appointments at Cementos Portland Valderrivas**

The Board of Directors of Cementos Portland Valderrivas unanimously agreed on the appointment of José Ignacio Elorrieta Pérez de Diego as a new Director to cover the vacancy left following the resignation of Juan Castells. Elorrieta has a PHD degree in Biology from Universidad Complutense of Madrid, with a postgraduate in Biolectromagnetism, Biomedical Engineering, and Environmental Taxation. Before joining the Cementos Portland Valderrivas Group in 2009 as the General Manager of the Environment and Sustainability area, Elorrieta held several positions in the field of public management: General State Administration (Ministries of Health and Consumer Affairs; Environment, Education and Science); at the Navarre Regional Government (Health and Social Welfare and Environment, Regional Planning, and Housing) among others. He was also the Executive



José Ignacio Elorrieta Pérez de Diego, new Board Member of Cementos Portland Valderrivas.

Director of Sustainability at the Institute for the Sustainability of Resources. His international experience includes being the head of Spanish delegations at various conferences of the Parties to the Stockholm Convention and SAICAM-World Strategy for Chemical Products – within the framework of the United Nations and the OECD. He was an advisor to the World Health Organization in different international panels of experts in the field of the Environment, Health, and Urban Ecology, of the European Commission, and of the European Council of the Environment. He was awarded the Civil Order of Health in recognition of his work in the dissemination of science, has published 18 books and more than 180 articles and has also participated in several courses as a professor.

In addition, to cover the vacancies in the committees due to the resignation of Juan Castells, Lourdes Martínez Zabala has been appointed member of the Appointments and Remuneration and Corporate Governance Committee; Cartera Deva, S.A., represented by Jaime Llantada Aguinaga to the Audit and Control Committee; and Gustavo Villapalos Salas, as a member of the Executive Committee.

## Letter from the Chairman to Juan Castells

Esther Alcocer Koplowitz, the CEO of FCC, writes a farewell letter to Juan Castells Masana has been with the Group over the past 47 years, first as an employee and manager and, until 8 October of this year, as a member of the Board of Directors.

#### Dear Juan:

It is difficult to write a farewell letter to somebody like you who we all have seen working, with commitment and loyalty, at our Group during all our lives. It will also be difficult for us not to have you with us in the forthcoming sessions of the FCC Board Meetings or at those at Portland Valderrivas where your performance as a director was exceptional. All of us who are part of the FCC Group and, especially my mother, Esther Koplowitz with whom you have worked so hard and so loyally, want to publicly express our gratitude for so much and all the good that you have contributed to this Company, which will always be your home, and where we will strive to continue along the same lines of honesty, determination, commitment, and exquisite behaviour that have always distinguished your performance.



I wish you the best and send you a very warm hug.

Esther Alcocer Koplowitz CEO of FCC



NOSOTROS GESTIONAMOS EL CICLO DEL AGUA A TRAVÉS DE AQUALIA. TÚ HACES UN CONSUMO RESPONSABLE.

LO ESTAMOS HACIENDO JUNTOS



Infraestructuras | Medioambiente Gestión del agua | Energías renovables

# Business

# "Same Values, same VISION .A.S.A. at the ISWA Congress in Vienna



Left to right: DI Rainer Kronberger (President ISWA Austria), Dr. Bertram Laub (.A.S.A. Abfall Service AG), DI Hermann Koller (Managing Director ISWA General Secretariat).



Vienna City Hall.

Vienna hosted the annual global waste management ISWA congress (International Solid Waste Association) from October 7-11th, and welcomed over 1,200 international experts, decision makers and visitors. One of the co-sponsors of this international event is the .A.S.A. group, the leading waste management company in Central and South-Eastern Europe.

ISWA is a global, independent and non-profit making association and has been following its mission since 1970 to promote and develop sustainable and professional waste management worldwide for the public benefit. The annual congress is therefore one of the most important events worldwide in the field of waste management.

For the .A.S.A. group, the transfer of knowledge and know-how has been one of the keystones of our corporate policy for over 25 years. We are active in 8 countries in Central- and South-Eastern Europe and support our local business partners and municipalities in the development and operation of their waste management systems.

According to Dr. Bertram Laub, from .A.S.A. Abfall Service AG, "Our cooperate mission and values correspond with the vision of ISWA – to professionalise and sustainably design waste management according to the requirements of the respective markets with human and future in mind. Therefore we are pleased that the city of Vienna has been able to organise the ISWA world congress in Vienna and are glad to support with emphasis this global expert event".



Javier Santiago, managing director of Aqualia Infrastructures, and Bartolomé Marín, desalination manager, at the centre, accompanies by representatives from the Spanish Embassy and representatives of Spain's Department of Agriculture in China.

## IDA World Congress en China

# Aqualia Infraestructures participates in International Desalination Congress in China

The IDA World Congress on Desalination and Water Reuse was held in Tianjin, China, 140 kilometres from Beijing, on 21 to 15 of October of this year. Held every two years, the event also features technical seminars and round table discussions, and an exhibit displaying the latest desalination technologies.

Under the heading: "Desalination: a promise for the future", the leading companies in this industry participated at this event, organised by the International Desalination Association. Spain played a major role as one of the world's major power in this segment.

For another year, Aqualia Infrastructures set up a corporate stand where it described its vision in the field of desalination, as a leading player of a sector in which Spanish companies have a major presence. At the stand, it displayed its experience as designers and builders of desalination, de-brining, and tertiary treatment plants that make it possible to reuse water in Spain as well as in other countries such as Algeria and Chile. The congress focused on issues such as desalination technology, environmental sustainability, plant management, finance, applied technologies and good practices.

3 u s i n e s s

# FCC Aqualia increases its business in Catalonia



Signing of the agreement by the mayor of Roda de Ter, Jordi Serra, on the right, and on the left, Juan Luis Carrillo, head of FCC Aqualia's Zone II office.

## Roda de Ter (Barcelona)

#### Worth more than 9 million euros, this is the first contract awarded in the Osona region in north-east Catalonia.

The City Council of Roda de Ter (Barcelona province) awarded FCC Aqualia a contract for managing the Municipal Water Department of this industrial city with more than 6,000 inhabitants, in Plana de Vic, next to the River Ter. The 15-year contract, which can be extended up to 25 years in 5-year consecutive terms, represents a backlog of 9 million euros.

Thanks to this contract in this part of the province, FCC Aqualia increases its business in Barcelona where it already operates in seven cities and towns providing services to a population of 250,000 which, in the summer months, increases to half a million.



The head of the Catalonia and Aragón branch of Aqualia, Jordi Aguilera, on the right, and Jose María Santamaría, the mayor of La Pobla de Montornès, at the contract signing ceremony.

## La Pobla de Montornès (Tarragona)

#### End-to-end water management contributes 16 million euros worth of backlog.

Josep María Santamaría, the mayor of La Pobla de Montornès, and Jordi Aguilera, head of FCC Aqualia's Catalonia and Aragón branch office, signed a concession contract at the city council whereby the company will be providing supply and sanitation services over the next 25 years.

The contract represents 16 million euros backlog and bolsters FCC Aqualia's positioning in Catalonia where the company recently was awarded a water supply contract in Roda de Ter (Barcelona). In the past year, the company also extended its contract in Lleida, increased its field of action in Pinyana, upgraded its waste water treatment contract in Lleida, and also extended the contracts in other Catalan cities such as Girona, Térmens, and Almacelles.



# Eastcroft reaches 40 year milestone

On 20 September of this year, the Eastcroft Energy from Waste (EfW) plant on the outskirts of Nottingham City Centre celebrated its 40 years of generating electricity and heat from the region's waste. Forty years later, the Eastcroft EfW facility continues to generate electricity and heat, offering Nottingham a reliable source of

Originally developed by a partnership of Nottingham City Council and the National Coal Board, as a response to the energy crisis of the early 1970s, the plant was the first of its kind when it opened on 20 September 1973. Pioneer

Eastcroft was a pioneering site and was among the very first to use the heat generated as part of a district heating system. To this day it remains one of the largest district heating systems in the country and the largest which is waste fuelled. The plant has gone through changes to ensure it can still operate and comply with today's strict controls on emissions. It is now the equal of the most modern EfW plants in Europe. From left to right: Paul Wheeldon, an operator who works the morning shift; Karl Starkey, Managing Director of Eastcroft

energy with low carbon emissions, reducing dependence on fossil fuels and preventing the dumping of tons of waste at landfill sites.

Eastcroft EfW produces heat and power by combusting up to 200,000 tonnes of nonhazardous waste from the region each year. It generates nearly 20 megawatts of thermal energy in the form of steam and hot water and produces electricity and heat for homes and businesses in the city. This is used to satisfy the heating and hot water requirements of 4,700 homes and over 100 commercial premises, including the Victoria and Broadmarsh shopping centres, the National Ice Centre/Nottingham Arena, Nottingham Trent University, BioCity, HMRC, and the Royal Centre.

# This is how .A.S.A.'s waste management plants function



Watch the animation

.A.S.A. presents a new animation, which joins the family of 3 already existing ones:

- Visit an .A.S.A. Collection Yard
- Explore a Waste-to-energy plant from inside
- Discover a Landfill by a click only

All animations are available at www.asa-group.com, in the relevant sections.

The animations can be easily downloaded at .A.S.A. Point as a swf or a PDF file.

Just visit the library: Group-C&CSR-Animations.

# FCC to upgrade San José airport in Costa Rica for 25 million euro

FCC reinforces its presence in Latin America with a new contract. The Citizen Services Group has been chosen to upgrade Costa Rica's Juan Santamaría International Airport in Alajuela, 18 kilometres from San José (Costa Rica). The project contemplates the construction of a hangar at the country's main airport, worth 25 million euros and an execution period of 1.5 years.

Alajuela airport serves airlines that provide service throughout the Americas (North, Central and South) as well as Europe. The Costa Rican airport is among the fastestgrowing in the region, in terms of numbers of passengers (almost five million per year) and airlines, as well as cargo volume. The project, which will span a total area of 21,894 square metres, includes a main hangar and several ancillary workshops, a general-purpose building, and a store for flammable liquids and materials, as well as a 150-space car park.

The hangar will be built 150 metres from the runway and will have six bays capable of accommodating Boeing 757-300-class aircraft. The hangar design focuses on opera-



bility and adaptability, with the goal of a small footprint.

The exterior and roof will be similar in appearance, and ancillary buildings will have the same aesthetic as the hanger. Special attention was paid to rainwater collection and removal.





This project is part of National Transport Plan, implemented by the Costa Rican Ministry of Public Works, which allocates 36.5 billion euro for road, railway, airport and aeronautical infrastructure over the next 25 years, most of which have yet to be tendered.



#### Costa Rica and Latin America

FCC, the Citizen Services Company, began operating in Costa Rica in 2004. Since then, it has completed major infrastructure projects such as the San José-Caldera highway (77 kilometres long) and upgrading the Heredia-Alajuela road (10 kilometre section), and several road maintenance contracts including the Barranca-Peñas Blancas highway (200 kilometres long) and roads in Cartago, the Atlantic zone, and San Ramón.

The company is currently expanding and upgrading the Cañas-Liberia road (50 kilometres long), which includes building/refurbishing 16 bridges. FCC has a backlog of 88 million euro and a workforce of over 300 people in Costa Rica.



FCC views Latin America as a strategic area, and has been operating there for 15 years through local companies, such as subsidiaries in Panama and Costa Rica. This region accounts for 11.5% of group revenues (firsthalf of 2013 figures), mainly attributable to infrastructure development.

FCC's activity in the region has been recognized on several occasions, most recently on 18 October, when FCC Chairman Esther Alcocer Koplowitz received the Business Growth Award from the Latin American Business Council (CEAL) on behalf of the company. In particular, the jury highlighted FCC's achievements in the Americas over the last 15 years.

is in e

## Construction work begins at the energy-from-waste facility at Buckimhamshire (United Kingdom)

On 5 September, a ceremony was held to mark the beginning of the construction of the Buckinghamshire energy-from-waste facility at Greatmoor. A pear tree was planted during the ceremony which counted with the presence of Carl Etholen, chairman of the Buckimhamshire County Council; Lesley Clarke, the head of the Council's Environment Department; and FCC Environment's Development Manager, Richard Belfield.

Valued at 275 million pounds, the 30-year contract was awarded in April 2013 by the Buckinghamshire Council after a strict and rigorous tender process. The start of the construction work is a very important moment for all of those who work in this project.

Each year, the plant will convert 300,000 tonnes of waste from homes that cannot



recycle into electricity, providing electricity to 36,000 households and enabling Buckinghamshire Council to save about 150 million tons over the term of the contract. would otherwise end up in a landfill site, is an essential aspect of Buckinghamshire's waste management strategy for the future.

Electricity generation with low carbon emissions by the heat treatment of waste that

# FCC Environment will be managing the waste of a major tobacco company

The Business Waste Solutions team of FCC Environment was recently awarded a 3-year, 750,000 pounds contract for managing the waste produced by a major tobacco company.

The contract contemplates the collection and treatment of various types of materials, including general, confidential, and tobacco waste products as well as paper and cardboard.

The team will help the company to achieve its goal of reducing the volume of waste that ends up at landfill sites to less than 5% over the next 12 months and to offset its carbon emissions by planting about 900 trees each year in the Nottinghamshire area.

The company produces 3,000 tonnes of waste each year and is under the obligation of managing the materials from the tobacco manufacturing process in an ethical manner.



**NOSOTROS GENERAMOS ENERGÍA RENOVABLE.** TÚ LA UTILIZAS **DE MANERA** INTELIGENTE.

**LO ESTAMOS HACIENDO JUNTOS** 



Infraestructuras | Medioambiente Gestión del agua | Energías renovables





MANTENIMIENTO

INVERSIONISTAS





IN

MA

# People

# **A constant of the second seco**

The Kingdom of Saudi Arabia stretches over an area of 2,149,680 square kilometres and the home of a population of 28.2 million people. The country has become a strategic objective for FCC due to its enormous potential in the infrastructures sectors. The major cities in the Kingdom are Mecca, Medina, Jeddah, Damman and Riyadh. Because of its wealth and development, it is no longer considered just a country of sand and oil.



## Riyadh, capital of Saudi Arabia

Situated in the centre of the Arabian Peninsula, Riyadh is the largest city in the Kingdom of Saudi Arabia. It spreads over an area of 1,554 square kilometres and has a population of nearly 4.9 million. Since 1902, it is political and administrative capital of the Kingdom of Saudi Arabia, and the home of the royal court, ministries, and State agencies. It is also considered the largest economic hub in the Middle East since it is the home of major corporations, multinationals, and investment groups.

It has become an attractive tourist and business destination thanks to the large number of tourists and companies that establish their headquarters in the city.

# FCC executes a contract for the construction of the Riyadh metro





On 1 October, ADA, Ar Riyadh Development Authority and FAST, the consortium awarded the metro project in which FCC (28.16% stake) is one of its partner, officially executed the contract for the construction of Riyadh metro.

The receipt and announcement of the "notice to proceed" was foreseen for the first week of November. This document marks the start of the project and is the initial date of the contractually established 5-year term for the execution of the project.

## Organization of the project

Three civil engineers, with broad experience in the Company, were assigned to head this project:

- Jaime Freyre, the former director of the United States and Canada area, will be at the helm of the FAST consortium.
- The joint-venture in charge of the civil works will be headed by Álvaro Senador, whose previous post was as the Director of Development at FCC Industrial in Latin America.
- Tomás Arranz, who joined FCC in 1990 and has occupied various posts at the Company as project manager and has wide experience in the construction of metro projects, will be in charge of the work corresponding to Line 5 of the metro system. In his previous job, he worked as the manager of the third section of Line 9 of the Barcelona metro. He is very familiar with the Riyadh project in which he has been involved since July 2012.

#### A new way of doing things

Einstein said something to the effect that if you want to obtain different results, you have start doing things differently. In the Riyadh project, work commenced in a different way as has been the case until now. Since the contract was awarded, it was decided to introduce a new function in the work team, that of a contract manager whose mission is to ensure that the contract is used on a daily basis to manage the project, monitoring not only the timely compliance of all obligations, but also ensuring that the project is executed on time and according to the specifications of the contracting party. Three people are working towards achieving this objective: Pepe Ruiz, contract manager of the consortium; Margarita Ruiz, a member of the contract manager's team; and Eduardo Romero, a member of the joint-venture's procurement team.

 Pepe Ruiz, a civil engineer, began his career at FCC in 2000. For the past two years, he has been working as the manager of Management Control at Alpine, supervising the company's 92 largest projects throughout the world.

- Margarita Sánchez is an architect with a graduate degree in building from the European University of Madrid (UEM). She joined FCC in 2001 and, since then, has participated in several of the Company's projects, including, as the most important ones, the Enniskillen Hospital and Caja Mágica. Over the past year, she has been working as the head of Alpine's technical office.
- Eduardo Romero is also an architect and holds a building degree from UEM. He is multidisciplinary technician with broad experience in supervising all aspects of international projects: quality, financial, technical, and purchasing. In the past year, he has worked as a technical manager at Alpine.

The Riyadh team is being formed gradually and in the forthcoming issues we will be presenting the team there and those who have been incorporated.

#### The Riyadh metro: the most important metro construction project in the world

At the end of July of this year, the award of the largest international contract in the history of the Spanish construction industry was announced. The consortium headed by FCC will build lines 4, 5 and 6 of the subway; the contract is worth 6.07 billion euro.

Thirty-seven consortia comprising the world's leading construction companies participated in the tender process. The project was divided into three packages that were awarded to other international consortia: one led by the Italian group STS, another one by Bechtel (U.S.), and a third one led by the Spanish group FCC.

The package awarded to FCC includes the design and construction of lines 4 (orange), 5 (yellow) and 6 (purple), which will have 25 stations, requiring a total of 65 kilometres of rail track between the viaducts, 26.6 kilometres of underground tracks, and 8.2 kilometres of aboveground track. To build this project, FCC will be using three boring TBM boring machines with almost 10 metres of diameter.

Wok is scheduled to begin in about 8 months and will have an execution period of five years. It will create more than 30,000

jobs during the construction period, 15,000 of which correspond to the part awarded to the FCC-led consortium.

The new public transport services represent an opportunity for transforming the city of Riyadh. The new transport infrastructure will reduce traffic congestion, will bolster and boost the economy of the Kingdom of Saudi Arabia, and will be to the benefit of the country's population.



# FCC Group's presence in Arabia



FCC Aqualia's team in Riyadh.

FCC Aqualia, FCC Group's company specialising in end-to-end water management has been operating in Saudi Arabia for the past three years.

The National Water Company awarded a contract to FCC Aqualia contemplating the design and implementation of a project to search for and repair leaks in the water supply network of most of the city of Riyadh. Worth 27 million euros, it was the first water management contract awarded to a Spanish company in the Middle East.

Work is currently underway to optimise the 6,700 kilometre network that supplies drinking water to more than 3,000 people. The company is also involved in the GIS modelling of the entire network and is performing a study on the operations and optimisation of household water meters. Also in the Middle East, a few months lter FCC Aqualia was awarded a contract for the operations and maintenance of the sewers and sewage treatment system in the emirate of Abu Dhabi.



FCC Construction's team in Riyadh.

## **Milestones**

Since ADA awarded FCC the contract, the team has been going over the contract and improving the conditions of its clauses based on prior requests by FCC and new contributions. The terms and conditions originally accepted when the contract was awarded and the contract executed in the beginning of October have been significantly improved. These can be grouped into three major blocks:

- Better collection terms and conditions (collection periods, withholdings, etc.)
- Improved requisites and terms for receiving advanced payments.
- Penalties for delays have been significantly limited.



# Living in Saudi Arabia

Since the project was put out to tender until now. almost three years have gone by and since then, many more people are working at the Riyadh metro. The testimonies of several of the members of the civil works study department are included in this issue of Red de Comunicación. Theu describe their first impressions when they first arrived at the country. They feel very satisfied of having been awarded the most important international contract in the history of the Spanish construction industry, where many of the leading professionals from various countries and world-class companies have participated in the tender process.



#### Maxi Rodríguez. Head of the Civil Works Studies and Contracting Department

Her function in the Studies department is to coordinate the group assigned to a specific tender offering. She has been working at FCC for the past 15 years.

#### What are the reasons for your involvement with Saudi Arabia?

Over the past few years, the Studies and Contracting Department of FCC has become increasingly involved in international tender processes. This, plus my experience and involvement in metro projects put out to tender could have been the main reasons for assigning me to the Saudi Arabia tender bid.

#### What has the tender bid project involve?

This tender bid is in keeping with what is known as the Project and Work Tender Process. During this process, we develop a draft project following the guidelines provided by the client in the tender specifications document. Based on this draft project, we perform a technical and an economic study that includes a description of the resources that would have to be mobilised and its organization, the technological, environmental, quality, safety and health standards that will be implemented by the bidder to comply with the client's requisites. It also includes the budget for the execution of the construction project and the work that will have to be carried out once the contract is awarded.

### What were your first impressions when you arrived?

The desert landscape, without any vegetation, is what first impresses you. All of the sudden, in these surroundings, the city of Riyadh emerges as an oasis that breaks the monotony of the desert scenery. The way that people dress and the contrasts between the modern buildings and commercial centres and the traditional neighbourhoods draws your attention.

#### What is it that makes it different from Spain?

The customs and way of life, undoubtedly.

#### What do you like the most and the least about the city?

What I like the most is the architecture of some of its buildings. The lack of cultural and leisure spaces, such as cinemas, theatres, etc. is the other side of the coin.

## What would you highlight about this contract?

Its size and complexity. We are facing one of the most important projects worldwide in terms of both the technical as well as the technological requirements outlined by the client.

#### What does it mean for FCC to have been awarded this contract?

I think that it is a great boost and an international recognition of the expertise and values of a major construction company such as FCC: It also represents a great challenge which I am certain that we will tackle successfully.



#### Daniel Gil. Head of Studies Offers and Civil Works Contracting

Daniel is the Cost Estimation Manager of the Civil Works Consortium (CWC) and of the Consortium. He has been in contact with Saudi Arabia since August 2012.

#### What does your work entail as part of the operations?

The operations have been divided into several phases. I was the Cost Estimation Manager up to the moment when the tender bid was submitted on 20 February 2013. Therefore, my responsibility has been to coordinate the cost estimates in FAST: the Civil Works Consortium (CWC) and Rolling Stock and Railway Systems (TSY), which comprises personnel from four (FCC, Samsung, Strukton and Alstom). The work was performed during the 6-month tender bid period which was very intense due to the limited time available and the extensions granted by the client.

During this period, we coordinated with other task groups, such as methodology and programming, and with the design group. We obtained local information from our colleagues in Riyadh, selected the possible subcontracting and supplier companies, requested bids and met with some of these companies. We also estimated the costs in coordination with the machinery department, assessed the client's risk matrix, and finally agreed, jointly with the other partners, on the costs to be submitted to the client, ADA (Arriyadh Development Authority).

During the negotiation phase with the client, I have been supported by the negotiating team in Riyadh until the contract was executed and, finally, I coordinated the Initial Mobilisation Team (IMT) and the tasks required to be able to begin the project jointly with the partners in Riyadh, such as looking for an office for the project, the compound for expatriates, car rentals, interviews the local subcontractors for the initial works (geotechnical tests, topography, and the transfer of affected services), visiting the metro lines, and the localisation of the critical points, and the verification of the capabilities of local suppliers.

#### What were your first impressions of the country when you arrived?

Riyadh is a huge city with a population of five million people and its "pulse" is currently affected by construction of projects underway throughout all parts of the city.

#### What is it that makes it different from Spain?

There are many differences and one must adapt. It is a difficult country where the Muslim culture is pervasive at all times; for example, the five calls to prayer, and the women wearing an abaya. Also, there are many contrasts; stores, skyscrapers, luxury cars, together with very modest homes for the workers and immigrants from South East Asia.

#### What do you like the most and the least about the city?

What I like the most are some of the restaurants that serve Arab cuisine, the price of gasoline, which is very cheap, and the safety of the city. What I like the least is the lack of leisure activities and the restrictions affecting women's freedom.

#### What would you highlight about this contract?

I would highlight the work carried out by people from many different nationalities and cultures, such as Koreans, Dutch, the French, and Spaniards, with different work teams that must agree in order to execute the contract with the same objective. I would also stress the magnitude of this project in comparison with the normal ones; it would seem that everything has one more zero on the right.

#### What does it mean for FCC to have been awarded this contract?

I believe it is a great opportunity for developing FCC's expertise in metro projects abroad, particularly in the Middle East, one of the regions in the world experiencing the strongest growth and activity.



# Living in Saudi Arabia



Fernando Jaraiz. Country Manager of FCC Aqualia in Arabia

His work is as a project manager. He has been in Saudi Arabia one year and two in the Middle East and has been living in Riyadh for one year.

#### What is your activity in Riyadh?

As a country manager, I manage and coordinate the activities to be carried out by the entire team as well as the relations with the client.

#### What is the opinion of FCC's activity in Saudi Arabia?

With many opportunities for growth. The country has one of the highest growth rates in the world and is undergoing enormous changes in terms of social service infrastructures in which the company can participate. During these first years, we have become a competitor, at the same level as the Americans, French, Germans, Japanese, and Koreans.

#### What were your first impressions of the country when you arrived?

The country is very different from what we are used to and everything calls your attention, from driving in the city, to the buildings, work, dealing with people, and the many different cultures that you find here.

#### What is it that makes it very different from Spain?

The predominant and only religion is Islam and it affects your daily life; stopping for prayers (five times a day) when the entire country comes to a stop, and also the way that it affects how women dress.

#### ¿What do you like the most and the least about the city?

What I like the most is the ethnic diversity, and what I like the least is the traffic.

#### What do you have to take into account in order to live in Riyadh?

You have to take into account the fact that women cannot drive, they must wear the

abaya, a black garment that covers their entire body except the head that they must wear whenever they go out, and also that they cannot intermingle in public with people who are not their relatives.

#### What is it like to live in compounds? How does it work?

Living in compounds is living without having the restrictions that I mentioned before. This means that women have a place where they can walk or mingle the same as they would do in Spain. The compound is a closed and secure urban development where others cannot enter unless invited by someone who lives inside. They usually have many services, such as gyms, tennis courts, swimming pools, children's day care centres, basketball courts, schools, supermarkets, restaurants, etc. Living in a compound enables you to like as you would in a Western country, especially for the family.

#### The compounds

Expatriates generally live in compounds, closed and protected housing developments which offer all types of services, including: a social centre, sports facilities (swimming pool, gymnasium, tennis courts, soccer fields, squash courts...), recreation facilities (restaurants, halls...), basic facilities (supermarkets, laundries...), and provide the community living at the compounds all types of facilities so that they do not have to leave the compound.

People who do not live there are not allowed to go in except if invited by a resident. The "mutawa" or religious police cannot enter and, therefore, the community can live normally in terms of being able to mingle and women do not have to wear the abaya when they go out.

The desert, shortage of water, extreme temperatures, the abayas as the only garment that women are allowed to wear, the great differences between the past and the modern era, are just some of the great disparities of living in Saudi Arabia.

Many FCC Aqualia professionals have been settled in Riyadh for the past two years. We have their testimonies and impressions, describing how they have become accustomed to this new way of life. This is the case of Fernando Jaraiz who has lived in Riyadh for one year, and of Javier Villalobos, who has been there for almost three years. Javier also has three children who have been living with him and his wife during this period. His last son was born recently in Riyadh.







Pertenece a FCC Aqualia y lleva casi tres He works for FCC Aqualia and has been living in Saudi Arabia for nearly three years after arriving on 11 May 2011.

#### What is your job in Riyadh?

Our project involves a technical part (design, studies, GIS, meters) and the other part involves work on the projects. I'm responsible of all the projects contemplated in the contract.

#### What is the impression in Saudi Arabia of FCC's activities?

When we arrived, nobody, of course, knew anything about us and it was very difficult to open doors. Now, after having worked with the National Water Company for some time and having been awarded the Riyadh metro contract, FCC is a leader in the Saudi Arabian infrastructures market.

#### What were your first impressions when you arrived in the country?

The cultural change is enormous and from the first day, it is difficult to get things done. At the end, you realise that it is nothing personal and that this impression is shared by the other expatriates that you start to meet.



## ¿What is it that makes it different from Spain?

Entertainment and leisure activities are very limited and there is hardly any life in the streets. You spend almost 90% of your life at the compound or in huge shopping malls where you can find restaurants, shops, and children's playgrounds. All life revolves around Islam. There are five 30-minute calls to prayer each day and during this time, all shops, restaurants, petrol stations, etc. are shut down. Women have to wear an abaya (a black garment that covers them from their shoulders to their feet) and they are not allowed to drive. Another big difference is the legally established segregation by sex.

There sections (family) at all restaurants and public places, and another one just for men (singles)

#### ¿What do you like the most and the least about the city?

What I like most is that it is a safe city. We have never had an unpleasant situation in this sense, neither my family nor I. The climate is warm and children can enjoy the pool almost during the entire year and I can ride the bicycle, my favourite pastime. Lastly, my daughters are receiving a good education at a multinational school where they can learn English in a natural way and can have an open mind thanks to their classmates from different parts of the world and with different cultures. What I like the least is the traffic which is chaotic and dangerous, forcing you to spend a lot of time in the car, and the restrictions imposed on women's freedom.

#### What do you have to have in order to live in Riyadh?

Patience and you have to be very tolerant with the local lifestyle, judging it as little as possible. Keep a low profile when in public places and, in the case of expatriate women, assume that the freedom and normal customs in Spain are very restricted outside the compound.

#### How is life at the compound?

Compounds are private enclaves where the Mutawa (Religious Police) are not allowed access. This means that you can live a Western-type life without any restrictions. There are villas and apartments, usually with swimming pools, children's playgrounds, and restaurants, depending on the category of the compound. Security is quite high and most of the compounds are protected by the Saudi army. All maintenance is included inside and outside the house.

Compounds are designed to make up for the lack of entertainment and leisure activities in the city and to be able to live as much as possible the way we do in the Western world. Even though the cost is very high, there is a great demand and it not easy to find house in the compounds, and this is a problem of many expatriates. For a family with two daughters and a newborn baby, it is essential in order to be able to live in Riyadh.



#### Interview

Sonsoles Vallina, a Spanish woman in Riyadh

# "More than 60% of Saudi women have a college education"

Sonsoles Vallina is a woman who loves art and lived three years in Saudi Arabia with her husband, Pablo Bravo, former Spanish ambassador in that country. They returned to Spain nearly a year ago and she agreed to an interview at the Reina Sofia Museum where she currently works so that we could learn a bit more about Saudi Arabia and its capital, Riyadh.

#### What do you do?

I am an art historian and a curator at the National Centre of Art Reina Sofia, a responsibility that I have been able to combine with the diplomatic posts of my husband abroad, even though it has sometimes been difficult for me. In the case of Saudi Arabia, I decided to accompany him since I think that my husband needed me and it was all a challenge. I had the opportunity to learn about a culture that is totally different from the European culture, everything seem shrouded in mystery and moving to Riyadh gave me the opportunity to experience a new way of life.

## How many years did you live in Saudi Arabia?

About three years.

## How would sum up your relationship with Saudi Arabia?

One of great friendship thanks to the friends that I made, of success thanks to the opportunity of becoming closer to a society that unknown to me, of understanding certain aspects of the Muslim culture and religion, and the surprise at becoming acquainted with Saudi women. I found many professionals in the field of medicine, education, or worked in the business world and who were committed to transforming the country within very strict social and religious norms. They taught me that it is possible to gradually find paths full of light. It should be noted that more than 60% of Saudi women have a college education and that most of them complete their doctorate degrees.

#### What has this experience meant for you?

An unforgettable personal enrichment; true friends, and sometimes more authentic friendships than you could have if you your destination were another country. It should be borne in mind that you live with other expatriates of all nationalities, foreigners who are well-educated and very well prepared professionally, that they also travel with their families to live temporarily in Saudi Arabia. Since I returned to Madrid, almost every day, and I tell you that this is the truth, I receive mail from the people who were my neighbours, sings of affection from those people that I found in Riyadh. I would say that these are very solid friendships that will last over time.

#### What aspects would you highlight?

Comradeship, understanding, generosity, friendship, help in times of need, and greater complicity with my husband since you spend a lot of time with the family and spend many hours together. I would say that a couple can become closer.

## What surprised you the most when you arrived in Riyadh?

The separation by sex of men and women in public places, the rigorous garments that they wear, the famous "abaya" a black tunic made of very soft fabric which covers a woman's body. Many of the Saudi women cover their faces completely and you can only see their eyes. Western women do not have to wear a scarf to cover their hair, but they must to put on an abaya as soon as they arrive at the airport in Saudi Arabia. I personally had one made in Madrid, designing a black silk kimono.

#### What did you like the most and the least in Riyadh?

The quality of all the items in their shopping malls, the European life inside the compounds, the trips to the desert at dusk, the raising of Arab horses, the trips on holidays to other Gulf countries (Qatar, Dubai, Oman) and also to Istanbul) and again, the friends and the intensity of personal relations. I emphasise this idea since I was able to see, as I had not ever in my life, how all the expatriates helped each other so that we would not feel alone. In this respect, one becomes very socially committed. When you gradually become familiar with Saudi surroundings and families, you realise that they are very good people, open, generous when they welcome you, and very fond of Spain.

The heat was a negative aspect but, I must say that the months from November to February are almost like Spring and in December I had to buy some comforters at IKEA. The night temperatures in the desert drop sharply. The hardest are the sand storms that cover the city and the summer heat.

#### How was your day-to-day life?

In my case, I had to attend to my social and diplomatic obligations. Eight embassies are situated in the Diplomatic Quarter, a very international and active community since there are always many cultural events: concerts, exhibits, conferences by invitation. I also participated in forums of Arab women which became a meeting point with the Riyadh society. I was also a member of the literary Book Club and also participated in French conversation meetings. My involvement in these groups drew me closer to Saudis and that is how I was able to visit their homes and meet their families. The truth is, it was a good opportunity to improve my language skills. Saudis speak very good English since their education is bilingual. If a Spanish woman arrives in Riyadh, she can organise a plan of activities and courses that could keep her busy all day.

#### Do you think that the integration of a woman in the life of Riyadh is possible?

If you have the will to do it, you can overcome the initial difficulties and have a very intense life, both European and Arab. Having a chauffeur can make travelling easier considering that after you drop the children at school, the chauffeur is at your disposal to attend to family needs. There is a wonderful golf course outside Riyadh where most Westerners go, and you can also find yoga, Pilates, English, French and – why not? – Arabic language courses.

When you gradually become acquainted with the Saudi circles and families, you realise that that are very good people, open, generous when they welcome you and that they are very fond of Spain



#### How can integration be achieved?

By having an interest in the country and having the predisposition, by making a personal effort to adapt to a completely different way of life, having a positive attitude is good for your personal and your family's stability. In Riyadh, recreational facilities for young children are encouraged.

## What memories of the city linger with you?

Weddings where only women were invited and which ended at midnight and I got back home at around five in the morning, the homes of Saudi friends and of people of other nationalities, the weekends, shopping in the fish market, an incredible place that they call the Zoco of the Princesses where they sell evening clothes at a very good price.

#### For many companies, Saudi Arabia is an opportunity. What would tell people who are considering the possibility of Riyadh as a professional destination?

They should not have any doubts; major Spanish and foreign companies are in the country, and it is a country of growth and development of cities, universities, airports, metros...the word "crisis" does not exist here, and the salaries and benefits can allow you to save. International tenders for major public works are continuously being announced, such as the high-speed train to Mecca and the recent Riyadh metro project that was recently awarded. These represent job opportunities which are not very frequent right now in our country.

### Sonsoles discovers Riyadh for us

#### Her practical recommendations:

- 1. Janadriyah Cultural Festival: One of the most important cultural events in Saudi Arabia which takes place every year. A sample of traditions, art crafts, folklore, a place where one can become immersed in Arabic and nomadic culture.
- 2. Weekend activities: Horse races at the Equestrian Club and trips to the desert.
- 3. Keep connected to the Qatari Al-Jazeera channel.
- 4. Recommended book: "Girls of Riyadh" by Rajaa Alsanea.
- 5. Saudi film: "Wadja" (2012) directed by Haifaa Al-Mansour.
- 6. Saudi press in English: Arab News and Saudi Gazette.
- **7.** When choosing a school: there are all types of international schools in Riyadh. The American School, the French Lyceum; the German and the Swedish schools.
- 8. Trips. There are many attractive spots to visit in Saudi Arabia, such as
  - a. The archaeological Mada' site in Saleh, Nabatea culture, a wonderful and unknown place; a city chiselled in the rocks.
  - **b.** The city of Alhasa, a palm tree oasis where the country's best dates are produced.
  - c. The rural communities of al-Hada and al-Shafa, where the Taif rose is cultivated.
  - **d.** In Riyadh, the National Museum and the Waad Hanifa Park, an ancient oasis with channelled water with park areas where Saudi families go to visit.
- 9. A hotel: Al-Faisaliah, serving family brunch on weekends.
- 10. An Italian restaurant in the same hotel: La Cucina, designed by a Saudi princess.
- **11.** For cuisine, Kabsa, rice with lamb, and Muhalabia, a yoghourt made with rose water.
- **12.** A shopping centre: Kingdom Mall with the city's landmark tower.
- **13.** She recommends that we take many books, music, and films in our suitcases.
- **14.** In countries neighbouring Saudi Arabia: Qatar, Abu-Dhabi, Dubai, Bahrain, and a bit farther away, Lebanon and Istanbul, Turkey.



# End of the season ...

On an overcast morning on 6 September at Northampton University's football pitches, FCC United set out to bring the Waste World Cup home. The team's captain was Ashley Gordon and its other members were Phil Perigo, Phil Rogers, John Hopkinson, Ricard Duran, Charlotte Crisp, Belén Castillo, Chrissie Wilkinson, Borja Muñoz and Michael Ginbey.

The team got through the group stage with the following results:

Valpak, 1 - FCC United, 0

FCC United, 1 - Taylors Bins, 1

FCC United, 4 - Compare Waste Costs, 0

However, they were knocked out in the second round with a 2-0 loss against Simply



Waste who went on to win the competition.

Ashley Gordon said, "I'm proud of the team and that they played like lions. We fought until the end and are very disappointed for not having won. We went to all the games, started well, but, as is often the case, games always have two halves". They can always try again next year, but for them, the 2013 season came to an end... Game Over!

# Successful 4<sup>th</sup> edition of the "FCC Friends of Golf" tournament

The 4<sup>th</sup> edition of the "FCC Friends of Golf" tournament was organised on 28 September with the participation of workers from several of the Group's divisions.

The spirit and commitment of all participants in the initiative was total and despite the bad weather, nobody missed the event.

Since one of the objectives of the event is to encourage team spirit, the game was played again this year under the "Scramble" modality.

The solidarity initiative BIRDIES for SMILES was again the theme in this edition, to support the Spanish Cancer Association. The initiative consists of a one euro donation for each birdie achieved by a player and it was a great success thanks to the fantastic results achieved by the teams. CONGRATULATIONS TO EVER-YONE!!

The FCC Friends of Golf encourage us to participate in the forthcoming edition in 2014 and to contribute ideas so that the initiative continues to improve.



## Joint FCC Environment and .A.S.A. (Good practices) training activities

A training activity was organised in Prague from 15 to 17 October with the participation of FCC Environment and .A.S.A. FCC Environment gave .A.S.A. a 3-day course on "Training trainers", taught by Derek Chatting (Director of Training) and Angie Burgess (Training Manager). This initiative is the result of the international training workshop held in Madrid on 11 and 12 February which brought together training managers from most of the FCC companies.

The "Training Trainers" course provided the members of the .A.S.A. HR team, headed by Silvia Slusna (HR manager at .A.S.A.) the capabilities for efficiently creating, preparing, and teaching, at the required training level, other employees on issues relating to health, safety, the environment, and other subjects.

Those who attended the courses will now be able to:

- Define the responsibilities and limits of their role in relation to training other employees.
- Identify and use the most appropriate training and learning methods that are most suitable for employees' training.



In the photograph: Silvia Slusna and Lesley Callaghan, with the trainers Derek Chatting and Angie Burgess, and the attendees from the .A.S.A. human resources team.

- Plan the classes efficiently and with precision.
- Provide complete training courses aligned to the needs to motivate participants.
- Use different evaluation methods to validate training and knowledge transfer.

The course was a mixture of theory and practical exercises in which, during the first two days, those who participated worked on developing their training skills and knowledge, concluding on the third day with an individual 45-minute session that was later evaluated. Lesley Callaghan (HR manager at FCC Environment) was a member of the assessment panel.

# FCC receives Institute of Tourism Sustainability award

On 15 October, the Institute of Tourism Sustainability (ISTur), delivered its annual prize for the execution of civil works and building in the national and international market with sustainable criteria to FCC for its contribution to developing sustainable construction nationwide and abroad, adopting good environmental practices and promoting the signature of international agreement to promote its commitment to equal opportunities, respect for biodiversity and the eradication of discrimination and harassing. Antonio Burgueño Muñoz, director of Quality and Training at FCC Construction's Infrastructure division collected the prize.

The awards for the 2nd edition of the international "True commitment to sustainability" awards of the Instituto of Tourism Sustainability® (ISTur) were delivered at Madrid's Technical University of Civil Engineers. The Rector of Madrid's Polytechnic University, Carlos Conde chaired the event, accompanied by Rosa María González Tirados, the director of ICE; Joaquín Castillo Dolgaray, Tourism Managing Director of the Madrid Community; Felipe Gallego, president of Istur; and by the Secretary of State of Tourism and the Hostel Industry of Angola, Paulino Domingos Baptista.



During the ceremony, the President of the Institute of Tourism Sustainability highlighted "the importance of education as the basis for sustainable development" and stressed that "sustainability is not a utopia; we must assume that it is the "road map" for the society of the twenty-first century".

# The "Citizens for smart cities" seminar

Juan Pablo Merino, director of Corporate Marketing and Brand, participated as a speaker at the session held last 19 September in Mérida.

Today, more than ever, FCC is the leader and the driver in developing the Smart Cities process, as well as an expert, with indepth knowledge of the territory of a city. It is aware of the challenges in the new socialeconomic context and of the need to collaborate with other companies, the Public Administration, and the community.

Accordingly, and under the slogan "Citizens for smart cities", FCC participated on 19 September 2013 in a seminar held at the parliament of the Extremadura Community in Mérida.

Juan Pablo Merino, director of FCC Corporate Marketing and Brand, was one of the speakers. In his presentation, he stressed the need to lay the groundwork for sustainable cities through their basic services to be able to face the challenge of building a



#### Ciudadanos para ciudades inteligentes

Smart City. In any Smart City, the focus has to be on citizens since they are the ones who will be enjoying the city's basic services and must learn how to value these services, recognising the added value that they contribute. It is therefore necessary for the Administration and for service companies to have efficient communication.

As proof of this, Juan Pablo mentioned the study conducted by FCC in 15 Spanish cities. "Several people were asked what were the services required for an ideal city. Wifi, broadband, cable TV, were mentioned, but everybody forgot about drinking water and garbage. These are services that are taken for granted", he said. The second part of the survey was about prices. "People know how much they pay each month for their cell phones and internet, but don't know the cost of water or waste collection."

Almost 100 people, including companies, professionals, and political representatives from the region participated in the debate on the role of citizens as a key element for smart cities.

The seminar is part of a series of events to disseminate FCC's positioning as a reference in respect of Smart Cities. We are a company that listens, interacts and is concerned with addressing the needs of citizens by improving the quality of their lives in cities. The city is our territory and managers and citizens our target audience.



# Celebrating success

FCC Environment is celebrating a bumper crop of award shortlistings: FCC's Health and Safety Awards, the CIWM environmental Excellence Awards, the National Recycling Awards, and the B2B Marketing awards.

There of its entries were chosen as finalist in FCC's Health and Safety Awards which are at their second year.

Wrexham Recycling Park has been shortlisted in the safety management category for the site's health and safety performance, audit scores, and for having achieved a zero accident rate. An isolation device developed by Andrew Sargent and Roy Tunks has been selected from the technical innovation entries.

The lock-off boxes isolate plant machinery when mechanical works are in progress in order to prevent accidents. Sadly, Roy Tunks passed away at the end of last year so that he will receive the accolade posthumously.

Finally, Paul Stokes, Head of Prevention, Safety, Environment, and Quality, is one of the contenders for the personal achievement award for the "Don't Gamble with your Health and Safety" campaign. Paul has created and the three-year program to improve health and safety in the business by ensuring that the wellbeing of the staff is at one of the pillars of our corporate culture, and he has worked tirelessly to promote this program.

To top off this list of successes in the culture of health and safety, FCC Environment was also shortlisted for the Dector Prizes for Environmental Excellence of the Environment Services Association (ESA).

The work with Sue Ryder at the re3 household waste recycling centres in Berkshire was picked out as one of the finalists in the National Recycling Awards in the Best Partnership Project for Recycling category.

Healthcare charity Sue Ryder is a non-profit entity which in 2012 generated 28,561 pounds from the sale of reusable items salvaged from two household waste recycling centres in Reading and Bracknell. In addition to funding high-quality end of life care, 44,060 kg of items were diverted away from the landfill.

Also, the work carried out by the internal communication department was shortlisted in the B2B Marketing Awards which recognises excellence in trade marketing. The recognition for the rebranded internal communications, value workshops, the ABCD awards and CEO Roadshows, as well as the staffzone, the Getting to the Point and Chevron bulletins, will allow it to compete with the best.



# ¿Aceptas el reto metro Riad?

Forma parte del **mayor proyecto** de construcción de la historia

> **EECC** Construcción

. 12

Más información en **empleados@fcc.es** www.fccco.es

120

1 --- V

# Social Responsibility

# Social initiatives in the water division

# 1<sup>st</sup> Edition of AMBIENTAL

FCC Aqualia participated in the 1st edition of the Environment and Sustainable City Fair in Castile-La Mancha which was held in Talavera de la Reina from 11 to 12 October. At one moment during the inauguration ceremony, the mayor of Talavera de la Reina, Gonzalo Lago, accompanied by Arturo García-Barroso, head of FCC Aqualia's service, visited the company stand. The main theme of the stand was the end-to-end water cycle in this city in the province of Toledo and Telecommunications and Information Technologies (TITs) implemented in the water network. Members of the community who visited FCC Aqualia's stand were able to learn about the various phases of the end-to-end water management in their city and the new technological developments for a more efficient use of water. The objective of these new developments, based on innovation and on the application of information technologies, is to contribute to creating smart services for citizens and to more sustainable cities.

Arturo García-Barroso, head of FCC Aqualia in Talavera de la Reina, unveiled the new sanitation truck used in the municipal water service featuring the latest technologies.



From left to right:, Jaime Ramos, first vice-president of the Council of the Province of Toledo and spokesperson for the Talavera de la Reina City Council; Jose Arce, head of FCC Aqualia's Communications and Marketing Department; Gonzalo Lago, mayor of Talavera de la Reina; Arturo García-Barroso, head of FCC Aqualia's service; Florencio Gutierrez, Health and Environment Councillor; and, Arturo Castillo, Councillor of the Economy and Treasury and of the Talavera Ferial Foundation.



Children during their visit to FCC Aqualia's stand

# Educational activities during the festivals in Oviedo

Belén Fernández, the councillor for Festivals and Society at the Oviedo City Council and Alfonso Tomás, manager of FCC Aqualia, unveiled the program for educational activities that the company offered to the children of the capital city of Asturias during the local St. Mathew's Festival. One of the objectives of this program is to encourage learning through fun and entertainment.

The event was organized at different neighbourhoods in the city with an outdoor playroom and a 20-metre long bus with audiovisual animation and learning equipment such as a touch and TV screens where games, films, feature films, and educational material were displayed.



Alfonso Tomás, manager in Oviedo, and Belén Fernández, councillor of Festivals and Society, during the presentation.

The Oviedo City Council and FCC Aqualia collaborate one more year to promote educational activities, committed to caring for and being responsible for the environment.



A moment during the demonstration of how manholes are cleaned.

### Environmental and Disability seminars in Badajoz

The chairman of the Badajoz Provincial Council, Valentín Cortés, and the city's mayor, Francisco J. Fragoso, accompanied by Jesús Rodríguez, the FCC Aqualia representative in Extremadura; Jose Manuel Cruz, department manager in Badajoz; and, Francisco Gijón, manager of Networks and Sanitation, participated in the first Environmental and Disability Seminars organized by Fundación Caja Badajoz and the city council of this city in Extremadura. Held at the centrally located Parque de Castelar, the seminars were organized with the objective of disseminating responsible environmental practices, particular aimed at people with disability in the city and in the other parts of the region.

At its stand, FCC Aqualia organised educational seminars to build awareness, providing information on the consequences for the environment of bad habits at home. He also made a demonstration of how manholes are cleaned with a dual-type vacuum and pressure truck. Aqualia gave those who attended the seminar portable and reusable trash bins with a label that said: "Take care of your city. Use common sense. Garbage, in the trash bin!"

These types of seminars aim to inform the community on the work performed by FCC Aqualia, work that most citizens are not aware of, in addition to increasing awareness on taking care of our environment.

### Nearly 4,000 euros for the Red Cross Gold Lottery

The Red Cross raised nearly 4,000 euros thanks to the work of FCC Aqualia employees at their offices in Andalucía who sold tickets for the Gold Lottery. This collaboration took place during the first week in July and involved 38 company offices throughout the Autonomous Community of Andalucía. At these offices, FCC Aqualia employees offered the lottery tickets to their clients and, many of them, themselves purchased these lottery tickets.

Spanish Red Cross managers highlighted "the great involvement of FCC Aqualia employees and the magnificent impression that they made", also thanking the company for its "invaluable help" thanks to which they were able to increase their points of sale in Andalucía.

The Red Cross will be reinvesting locally the sums raised in the Gold Lottery, 6.5% more than in the previous year. These funds will be invested in social programs to mitigate the needs of the most vulnerable families in Anda-lucía.

# FCC Aqualia, the first Spanish companies that certifies its carbon footprint in Spain

FCC Aqualia, through its Aigües de Lleida, joint-venture, has become the first Spanish company that calculates and certifies the carbon footprint of its end-to-end water management services. Awarded by AE-NOR; the certificate confirms the accuracy of the greenhouse gas emissions (GHG) calculation of Aigües de Lleida. The scope of the study, verified in accordance with the UNE-EN ISO 14064-1:2012 standard, included direct and indirect emissions of the entire end-to-end water cycle at all water management installations of the Aigües de Lleida contracts and the Pinyana Association, both of which are under the responsibility of FCC Aqualia.

It also identified and quantified the fixed carbon (carbon retained in biomass for more than 100 years) as well as the emissions that were prevented and the actual ones resulting from the burning of biomass. The calculation work was performed using a methodology developed by FCC Aqualia technicians and verified by AENOR. The calculation delivered a total of 3,045.31 tonnes of CO<sub>2</sub> emissions to air. Of the total GHG emissions, 90% are produced at the

### Meeting of the Club for Excellence in Sustainability

The committee of the Environment of the Club for Excellence in Sustainability met at FCC's corporate headquarters in Madrid. Susana Magro, managing director of the Spanish Office on Climate Change of the Ministry of Agriculture, Food, and the Environment chaired the committee meeting and informed the club on the latest news affecting her department, including: the most recent IPCC report, the purchase of emission rights, the Environment Promotion Plan, the Climate Plan, the Energy Efficiency Plan, the Carbon Footprint, Project, the CO<sub>2</sub> Sinks Project, and the Spanish participation in the Paris 2015 summit.

Javier López-Galiacho, the director of FCC Corporate Responsibility, gave Susana Magro a copy of the FCC Climate Change Strategic Plan. Enrique Hernandez, the director of Corporate Responsibility and Management Systems of FCC Aqualia gave her a copy of the verification report of the first carbon footprint calculation made by one of the departments managing the end-to-end water cycle, reflecting the implementation and execution of the FCC Climate Change Strategic Plan.

The club's general secretary, Juan Alfaro, informed the committee members of the creation of the Company's Biodiversity Observatory and of the Energy Efficiency Observatory. Besides the permanent members of this committee, other participants included José Luis Blasco, the partner in charge of Climate Change at KPMG, and



From left to right: Félix Parra, managing director of FCC Aqualia; Francesc Quintillà, FCC Aqualia's representative in Lleida and Tarragona; and Avelino Brito, managing director of AENOR.

treatment plants due to the physical-chemical processes involved in the treatment of waste water.

The study also revealed that the significant environmental management efforts made at the waste water treatment plant thanks to which the emissions that were prevented were able to offset those from the consumption of electricity.

The objective of the verification performed by AENOR is to ensure, independently, that

the information included in the declaration submitted by the organization is accurate, coherent, transparent and without any major discrepancy. The work team was made up of experts from Aigües de Lleida's Corporate Technical Department, with the support of FCC Aqualia's Corporate Technical and Management Department.

The advantage of having this certificate is that it makes it possible to know and to

More than 20 companies that stand out for their sustainability policies, including FCC, are represented in the Club for Sustainability Excellence

"

Mario Rodríguez, the executive director of Greenpeace Spain. The former presented the latest news on integrated reporting in Spain (the CNMV and GRI4 guidelines) and the draft Environmental Assessment Law. Mario Rodríguez talked about Greenpeace in Spain and the main areas in which his organization was working: Climate Change, the Agriculture Energy Model, and on the Exploitation of Oceans, showing "his interest in participating and debating with Spanish companies in different industry debate forums, regardless of whether or not there were general or specific different points of view".

control the emissions produced by organizations and their products, improve competitiveness, and increase transparency vis-à-vis third parties.

For an organization, the carbon footprint certificate also enhances the credibility in the reporting for third parties (national and international sustainability indices, the Carbon Disclosure Project, etc.) and enables management of the emission-associated risks.

This initiative marks yet another step in the Company's eco-efficient management, enabling it to identify new environmental improvements to reduce emissions as well as energy consumption. The initiative to calculate and verify GHG emissions will be implemented in more locations where FCC Aqualia provides services.

Following this recognition, FCC Aqualia now has a dozen certificates in the fields of ISO 9001 Quality Management, ISO 14001 Environmental Management, R+D+i Management, Information Security; and, Carbon Footprint.

FCC Aqualia, FCC's water management company, is one of the few companies in the world capable of offering solutions for each type of water use; household, farming, or industrial. FCC Aqualia operates in more than 1,000 cities and towns and in 200 drinking water treatment plant and at more than 300 waste water treatment plants in more than 16 countries: Spain, Italy, Portugal, the Czech Republic, Romania, Montenegro, Bosnia, Mexico, Peru, Chile, Algeria, Egypt, the United Arab Emirates, Saudi Arabia, and China.



The Board of Directors approves the CSR Report

# FCC assesses and highlights

# the Group's socially responsible performance



See the 2012 Corporate Social Responsibility Report: PDF

The FCC Board of Directors approved the Company's corporate social responsibility report corresponding to the previous year. This is the eighth CSR Report published by the Group and the seventh one verified by an independent third party, achieving, thanks to the scope of its content, the A+ rating of the Global Reporting Initiative.

The report highlights FCC's socially responsible performance in the Group's three core business areas (Infrastructures, Environmental Services, and Water) while analysing the results in compliance with the Corporate Responsibility Master Plan approved by the Board for the years 2012-2014.

In the words of its chairman, Esther Alcocer Koplowitz, "this report provides balanced and fair information on our organization's economic, social, and environmental performance which has always been guided by the quest for excellence, sustainable development, and occupational health and safety, innovation, promoting talent, and creating value for the communities where we operate and for our stakeholders".

For Juan Bejar, CEO of FCC, the report accurately reflects FCC's vocation: "contributing to sustainable development in countries where we operate, mainly in urban centres or in the link to these centres".

The following are the most relevant aspects highlighted by the report:



- The FCC ethics framework has been reinforced by including the North American Federal Sentencing Guidelines, thanks to which, the Board of Directors approved the new version of the Code of Ethics and published the Manual on the Prevention and Response to offences.
- FCC demands in all contracts with suppliers that they respect it code of ethics and comply with the 10 principles of the United Nations Global Pact and, that the contractual relation could be severed in the event of breach.
- In people management policies, the Group's Steering Committee stresses the policy of equality and diversity and on obtaining the "Equality in the Company" seal – granted by the Ministry of Health as well on preparing a job assessment project to analyse the contribution of each job to the organization, or a 26% reduction in the incidence of accidents at work.

- Personnel training at FCC, with 975,088 hours of training (5% more than in 2011) and a total investment of 13,822,080 euros (22% less than in the previous year.).
- The Group's commitment to integrating the most disadvantage groups in its workforce, hiring 963 employees with some degree of disability, 54 of whom have been recruited in the previous year.
- The innovation policy, with more than 50 R+D+i projects that the group has launched throughout the world with an investment of 28.5 million euros, almost double the amount invested in the previous year.
- FCC's strategic approach to mitigating and adapting to climate change thanks to its climate change strategy approved by the Steering Committee. In this area, worth mentioning is the collection of data on the Group's greenhouse gas (GHG) emissions which indicate that the figure was down 3% in comparison with the previous year (40% of these emissions are from lan-

dfill sites). The report mentions in this point the efforts made by FCC Aqualia to analyse the carbon footprint of its activity, being the first company in its sector to perform an analysis of this nature.

- FCC's vision as a citizen services group that wants to be recognised as an international reference in ecoefficient solutions for the communities where it operates, also reflected in the report through various initiatives which, to such purpose, have been implemented with several national city councils, such as the dialogue platforms with the city of Almería.
- The commitment to excellence and quality in the services provided to citizens by FCC are reflected in this report. It mentions that 81% of FCC Group's total activities are certified in accordance with the ISO 9001 quality standard and 78% in accordance with the ISO 14001 environmental management standard.
- FCC's CSR Report also describes the social and educational projects undertaken by the Group which represent a total financial investment of 4.5 million euros. These projects include the corporate social volunteer activities being carried out in collaboration with the Esther Koplowitz Foundation, helping more than 447 people and counting with the participation of 110 company employees.



### The Minister of Business of Wales, Lesley Griffiths, visited the Wrexham Recycling Park

As part of a visit to several projects, Lesley Griffiths, the Welsh Minister of Business, and other local authorities visited the Wrexham Recycling Park where they were able to confirm the evolution and implementation of the recycling facilities for recycling waste in this region.

A concession by the City Council of Wrexham, the FCC Environment Recycling Park is contributing to reducing the city's carbon footprint and is generating savings by encouraging recycling and reducing the volume of waste that ends up in landfill sites. The centre has recycling facilities for materials and a transfer station, as well as a classroom where schoolchildren are taught the importance of recycling.

Besides the existing plant, another mechanical biological treatment plant will be built to recover non-recyclable material to produce fuel. The MBT plant will start operations next summer after being granted the necessary urban permits.



# The Minister's remarks

"The wide variety of projects I have seen today are examples of the excellent work Wrexham Borough Council is doing and clearly demonstrates the benefits of public services, the private sector and Local Authorities working together. I am proud Welsh Government funding is helping to support these initiatives", the minister said during her visit.



### Remains committed to sustainability as a distinguishing seal

FCC Construcción's commitment to sustainability is reflected in the leadership of the company in these types of task groups and international forums. This drive is backed by the importance that the environment has in the company's management: it is not in vain that FCC Construcción was the first construction company that published an Environmental Report, an initiative promoted by its major shareholder who in 2013 was awarded the Environmental Merit Medal by the Minister of Agriculture and the Environment. Despite the not too favourable scenario, one of FCC's most solid commitments is to play an active role in multiple task groups to develop these standards necessary for sustainable development, highlighting its leading role in international scenarios such as ISO as well as CEN, establishing the basis, the definition and intelligence of sustainability within the framework of the infrastructures. Participating in drafting the protocols to measure waste and preparing a joint sustainability declaration is to the benefit of our current and future clients and, most importantly, enables us to set ourselves apart from the rest and to offer greater value



## **FCC Construcción**: The ENCORD and CEN task groups on Innovation and the Environment

The Las Tablas headquarters hosted the meetings last October of the ENCORD (European Network Construction Companies for Research and Development) and the CEN (European Committee for Standardization), task groups on Sustainability, Innovation, and the Environment. Both are associations of major European countries and stakeholders which are united to provide innovative solutions and promote the sustainable growth of the sector in Europe.

FCC Construction's Quality, Environment, and CSR Department was, jointly with the R+D+i Department, the sponsor and host of these annual meetings which aim to share proposals and the progress achieved by the different task groups in this respect.

### Two meetings, one objective

#### ENCORD: The International Sustainability and Environment Working Group

Twenty experts from 15 companies in the European construction sector met at Las Tablas on 1 October. These companies included Balfour Beatty, Vinci, Skanska, Bilfinger Berger which met to discuss issues relating to the measurement of water resources, the impact on biodiversity, the selection of non-hazardous materials, the assessment of sustainability in civil projects, and to encourage more active participation in the Carbon Disclosure Project.

The actual impact on the sector of this task group is of this working group in the reflected in results as relevant as the development of a protocol to measure CO2, adapted to the industry and compatible with the GHG Protocol standards (Greenhouse Gas Protocol).

#### CEN: The European Sustainable Construction Task Group

The CEN/TC 350 Task Group on "Sustainable Construction" met on 7 and 8 October. These meeting, held each year, is particularly important for the members of the European Committee since it reviews and prepares the Work Plan and the standards or specifications to be developed by the various task groups comprising the committee.

Antonio Burgueño Muñoz, director of Quality and CSR at FCC Construction was the coordinator of the CEN/TC350/WG6 de "Sustainability in Civil Works" task group and in charge of heading the meeting which, under his point of view, "was essential for all agents interested in standardising sustainability in buildings and civil works, laying the groundwork for defining the approaches to be employed to assess the sustainable performance of what we build".



# Well-being

# FCC employees and family members participate in a Children's Road Safety Seminar



### in Alcobendas (Madrid)



(http://www.erscharter.eu/es)

FCC and the City Council of Alcobendas de Madrid organized last 21 September the Children's Road Safety Seminar, bringing together family members of FCC employees, as part of a collaboration agreement to promote measures to encourage road safety and education within and outside the Company.

The aim of the seminar was to disseminate and to create awareness among the adults and children of the importance of safe habits when walking as pedestrians, riding a bicycle or driving a car.

FCC workers and their families went to the Road Safety Park in Alcobendas where more than 60 people got together to share their experiences and to learn about road safety in a fun manner.

The seminar consisted of an initial training class for children at one of the classrooms in the facilities, teaching them the basics about signs, the basic rules for riding a bicycle, and safe habits when travelling. After the class, there were practical lessons, conducted by the local police of Alcobendas and the park's managers in the driving circuits with karts and bicycles



Adults also attended a training session on the importance of obeying regulations and on the basics of road safety and were able to test the simulator to check the car breaking systems and retention methods such as the safety belt.

After the activity, the young participants received their first good driver's licenses and the seminar was topped off with a luncheon at the facilities where they were able to exchange impressions in a meeting where, besides learning, they were able to enjoy a day with their families and friends.

The activity is promoted by the FCC's Corporate Occupational Health Department with the collaboration of the General Services Department and the Central Warehouse of Construction Ancillary Materials. Other external entities also participated: the City Council of Alcobendas and the Road Safety Park; RACE (the automobile association) which provided the simulators and two technicians; Alliance Vending which contributed the snacks during the morning coffee-break; Mapfre Foundation which provided the educational material and a backpack which was distributed among the attendants; and Domino's Pizza which was in charge of the lunch at the end of the seminar.

The seminar is part of an activity program of FCC and the City Council of Alcobendas in their efforts against traffic accidents as members of the European Road Safety Charter and their commitment to "save lives".



In the photograph: Manuel Sánchez, FCC Aqualia's representative in Valencia on the right receiving the diploma from the secretary general of the Confederation.



The three FCC Aqualia representatives who attended the event. From left to right; Manuel Sánchez, FCC Aqualia's representative in Valencia; Juana María Sánchez, head of Production at the Prevention Department; and, Manuel Rosado, the representative in Alicante.

## The Valencia Autonomous Community recognises FCC Aqualia's efforts in prevention management

Runner-up in the Safe Company Track Record of the Llum Awards given by the Valencia Business Confederation. The implementation of preventive management in the contracts with the Valencia Community have contributed to reducing the rate of accidents leading to sick leave by more than 50% over the 2009-2012 period.

The Valencia Business Confederation publicly acknowledged the good management practices of FCC Aqualia in occupational hazard prevention, specifically, in the departments at : Alcoy, Villena, Dénia, La Nucía, Albal, Alboraya, Novelda, Callosa de Segura, Los Serranos and Llíria; the Canet waste water treatment facility and the brackish water treatment plant in Racons.

The implementation of these preventive management measures in the contracts executed with the Valencia Community and, in general, at the entire Levante branches of the company have contributed to reducing the rate of accidents resulting in sick leave by more than 50% over the 2009-2012 period. The services such as the ones in Llíria, Alboraya, Albatera and Callosa de Segura have not recorded any sick-leave related accidents in the last five years. The success of this zero accident rate, worthy of this recognition, was achieved thanks to effective management and the combined efforts of the company's 265 workers in the Valencia Community as a result of the implementation of preventive measures, policies and practices and of training and research on accident related aspects.

FCC Aqualia's representative in Valencia, Manuel Sánchez, collected the award given by the secretary general of the Confederation, Ricardo Miralles, who highlighted "the importance for society, companies, and workers of maintaining investments in Occupational Hazard prevention in these times of crisis since this investment generates returns in economic terms as well as in the health of the workers".

This has been the sixth edition of the LLum Awards, created in 2008 by the Business Confederation of Valencia to recognise and encourage good occupational safety and health practices at the work place and the good track record of companies in Valencia in preventive management. The panel of judges considered the significant efforts of FCC Aqualia in implementing new and efficient prevention systems which considerably improve safety and health conditions at work.

# "Run for the child's sake"

# Third edition of the popular race organized by Hospital Niño Jesús

On Sunday, 27 October, Hospital Infantil Universitario del Niño Jesús in Madrid organised the third edition of the "Run for the child's sake" race in Retiro Park in the capital. The community's participation was a great success with more than 8,000 people registered and the race bibs.

The race, organised by volunteer employees of the Niño Jesús Hospital had two different circuits with a length of 4 and 10 kilometres, respectively. The objective of this race is to encourage physical exercise as a normal activity and to raise funds for the hospital's research projects through the Biomedical Research Foundation of Hospital Infantil Universitario Niño Jesús.

For yet another year, FCC collaborated in this initiative, contributing the equivalent of 100 race bibs which were distributed among FCC staff who participated in the race. Many of our colleagues supported these great, healthy, and socially-committed initiatives. Thanks to everyone.

Remarks from some of our colleagues on their experience:

Juan Carlos Ingles Morales: "The experience, the atmosphere, and the organization were stupendous and there was nothing that could not match other races with a longer history and with greater resources. I hope to repeat this experience in future editions".

Antonio Pulido Rodríguez: "This is the second year that I participate in this race and, even though last year I thought it was a very good experience, this year; it exceeded all my expectations, a real luxury race throughout the Retiro Park, with many happy people and a festive ambience and contagious happiness. I have already written down the date for next year's race in which I plan to participate".

**Daniel Álvarez Ramos:** "The truth is that the experience was 100% gratifying. Although popular races are always a great experience, this one was even more since you that you are contributing to a good cause. For me, it is a source of pride to work

in a company that promotes these types of initiatives."

**Oscar Arturo Mandly Escribano:** "Without any doubt, this race was worth the efforts. It was gratifying to run for such solidarity cause. Nobody deserves to suffer, much less children "THE CHILDREN."

José Carlos Rico Pérez: "Many thanks to all of you for having made it possible for FCC to support such a sensitive cause. I encourage you to continue promoting projects such as this one and you can always count on some "clowns" like us."

Maria Dolores Storch de Gracia Calvo: "This event enables us to participate in an activity with a company that defends the same values that we do (efforts, closeness to the community,...) and also allows us to take part in an outdoor sports event with



the possibility of sharing this experience with our families."

**Emilia Soto Herrero:** "Running this race represented a great challenge for me since it was the first time that I participated in a 10-km race and, but seeing that it was promoted by the Company, I was encouraged to do this."

Links:

Facebook page on the race: https://www.facebook.com/pages/ Carrera-Popular-Hospital-Ni%C3%B1o-Jes%C3%BAs/212488895455880 Hospital Niño Jesús: http://www.madrid. org/cs/Satellite?cid=1354262365154&lang uage=es&pagename=HospitalNinoJesus% 2FPage%2FHNIJ\_contenidoFinal Classification: https://docs.google.com/file/ d/0B6tsdR3HaJzgTWhCZFVYbFlyZTA/ edit?pli=1





### Presevilab 2013

Helios García Asensio, FCC Construction's Occupational Hazard Prevention technician in Peru.

# First Latin American Congress on the Prevention of Occupational Hazards

FCC participated in the 1st edition of the Latin American Congress on the Prevention of Occupational Hazards and Road Safety at Work, promoted by the Government of Spain (through the National Department of Traffic) and the Government of Peru (through the National Council for Road Safety and the National Health Institute).

Held on the 16 and 17 October, the event was a meeting point with other Latin American countries to exchange experiences in traffic accidents at work, learning about good business practices, and to increase our knowledge on how to effectively manage action programs. Two hundred representatives from 12 Latin American countries in charge of occupational safety and health at companies, from public administrations, and road safety and health experts gathered at this event.

FCC participated in the section on good corporate practices, with Helios García Asension, a technician at FCC Construction who lives in Peru, who expressed before the audience at the auditorium the Company's commitment to the fight against traffic accidents and occupational accident rates.

According to the World Health Organization (WHO), about 3,500 people die each day on the road. The forecast for 2030 is for road accidents to be the fifth cause of death worldwide, with a rate of 2.4 million deaths per year. Meetings such as Presevilab make it possible to share information on strategies, to build awareness on the problem of occupational traffic accidents, to promote initiatives among administrations, companies, and entities, so that with their combined efforts, these statistics can be reversed.

Photo gallery: http://www.presevilab2013.org/Galeria. html

Link to access information: http://www.presevilab2013.org/



Closing session of the congress. From left to right: Juan Carlos Bajo, Occupational Safety and Health Manager at PRYSMA, Peru; professor Luis Montoro, chairman of FESVIA; Dr. Nancy Laos, Minister of Labour in Peru; and Juan Carlos Sánchez, Spain's ambassador in Peru.



Link to the PDF file

# Good occupational safety practices

FCC participated in the meeting of the Committee for the Prevention of Occupational Hazards sponsored by the Spanish Quality Association (AEC, Spanish acronym), held on 2 October at the National Aerospace Technical Institute INTA) where other companies associated with the PESI Spanish Industrial Safety Platform participated.

FCC was invited to make a presentation on the work that it has carried out in occupational road safety from the standpoint of a multinational diversified company which, based on its Strategic Road Safety Plan, aims to respond to social and labour demands on traffic accidents.

Jointly with companies such as Iberdrola and INTA, the issues discussed in the meeting included the problem of accident rates and the prevention of road hazards, including accidents to and from work and also the various programs being implemented on road safety and mobility.







Link to the pdf

### Working together on prevention

The Castile-Leon Centre for Occupational Safety and Health, an organization attached to the regional government, organized the seminar in León on 29 October on "Working together on preventing hazards. Good preventive practices" within the framework of the European campaign with the same title.

FCC's participation in the seminar was through its representative, Pedro Ledesma García, who is attached to the Company's Corporate Department for Occupational Safety, Health, and Welfare, and Miguel Ángel Hernández Calderón, from the Environment division in central Spain. They describe the details of the "Global campaign for participation and awareness of safety and health issues".

José Miguel Muñoz Bellido, the director of the Occupational Safety and Health Institute of Castile-León gave the opening speech, acted as the moderator, and closed the session. Belén Pérez Aznar, from the National Occupational Safety and Hygiene Institute (INSHT, Spanish acronym); the utility Iberdrola, and the Asociación de Empresarios del Polígono San Cibrao.



# of Cardiovascular diseases

#### By Dr. Román Barriguete FCC Medical Services

Cardiovascular diseases (CVD) are those affecting the circulatory system and the heart. These diseases in Spain are the first cause of death, even more than cancer.

There are several types of CVDs: high blood pressure, coronary disease, valve disease, strokes, etc. Within this group, coronary disease (ischemic heart disease – IHD) is the leading cause of cardiovascular mortality and, as part of this disease, acute myocardial infarction.

Healthy lifestyle habits and controlling risk factors make it possible to significantly reduce the rates of cardiovascular diseases in healthy individuals as well as of those who have suffered a previous episode.

Among the most relevant risk factors, we would mention:

 High cholesterol levels. One of the main coronary risk factors is related to the alteration of the metabolism of lipids with the subsequent increase in the blood and deposit in the blood vessels. This risk can be reduced considerably by monitoring our cholesterol levels periodically. Total cholesterol should be less than 200mg/dl with LDL cholesterol at less than 100 mg/dl and HDL cholesterol above 40



mg/dl. Although food is, as we will see later on, the main factor for controlling these levels, we should also bear in mind that some congenital diseases increase abnormal increases in the plasma at an early age which accelerates the appearance of arteriosclerosis and, accordingly, CVD. Therefore, it is important to start monitoring these levels at infancy and adolescence.

High blood pressure. It is an asymptomatic disease that makes the heart work harder and which can result in serious complications if not treated on time. It is, however, easy to detect.

Blood pressure has two components: systolic and diastolic. It can be classified as follows: Optimal: less than 120/80 mmHg Normal: less than 130/85 mmHg High-normal: 130-139/85-89 mmHg Hypertension: more than 140/90 mmHg.

Controlling obesity, salt intake and moderate exercise, as we will stress further down, are the most appropriate measures to prevent this risk.

 Smoking. According to the WHO, tobacco is the first cause of this disease worldwide and is directly related to many diseases, such as cancer, pulmonary and cardiac diseases. Of the total deaths attributed to heart disease, 29% are caused by smoking. The action mechanism is multiple: sharply reduces the concentration of oxygen in the blood, reduces HDL-Col, vasoconstriction, etc.



- Obesity. characterised by having a body mass index equal to or greater than 30, it is risk factor causing chronic diseases such as Diabetes Mellitus, high blood pressure, strokes, cardiac diseases. It is important to stress the importance that an inadequate children's diet could have in future obese adults. A "chubby" child is not necessarily healthier, it is quite the opposite.
- Diabetes Mellitus. A disease characterised by increased levels of glucose in the blood which, over time, can produce complications in the eyes, kidneys, blood vessels, peripheral nerves, etc. Many people who are sick are not aware of it and, as in the case of hypertension, it is important to detect it on time by means of an analytical control, particularly in the case of individuals with a family history of this disease. Preventing obesity is the most efficient way to prevent the appearance of type II diabetes (in adults).
- A sedentary life. Inactive people have a greater risk of suffering from heart disease. Exercise helps to control risk factors such as cholesterol and glucose levels and indirectly reduces blood pressure. Moderate exercise, according to our age, is an efficient tool against heart disease.
- Stress. Stress is another important cardiovascular risk factor, particularly in certain jobs and social environments The actual typical executive, with not enough time for other activities other than working and always with nervous tension, is the example

of the type of life that we live in this current society and forces us to suffer the terrible consequences on our physical and mental health. Sometimes we seem to forget that anxiety and stress increase our cholesterol levels, regardless of the direct effect on our organism. By properly controlling stress and managing our time correctly and intelligently, we can mitigate these undesirable effects.

It is necessary to become aware of the importance of all the risk factors and to adopt a healthy lifestyle. To do this, we should::

- Eat healthy food. Most of the risk factors can be reduced if we adopt healthy eating habits. We should eat a balanced diet, increasing our intake of fruit, vegetables, cereals, legumes and fish, and reduce animal fats and salt.
- Exercise. This is essential to maintain a good quality of life. Walking half an hour every day, going up the stairs 10 minutes a day can be sufficient. It is also important to stress that there are exercises for every age and that when we over do it because the exercise is not the most recommended for our age, we can add more risks and contribute to the onset of a cardiovascular event.
- Avoid taking toxic or addictive substances, such as tobacco, alcohol, or any type of drug. We should not forget that some drugs, such as cocaine, are potent vasoconstrictors

(shrink the arteries) preventing blood from efficiently flowing into the peripheral tissues (cardiac, for example) increasing the possibility of a CVD. By not playing down the effects of drugs, especially during our youth, we can prevent these risks in our adulthood.

- Monitor your health by going for regular medical checkups. You should control your blood pressure and cholesterol and glucose levels in our blood.
- Personal development: taking care of our mental health – our minds and emotions – encouraging healthy personal relations, trying to limit stress, and cultivating our optimism.

Cardiovascular disease is a scourge in our society and the main cause of morbid-mortality in the civilised world. There are many efforts and resources currently employed to prevent, treat, and for rehabilitation, the best example of what can be achieved by efficient prevention, relatively inexpensive, to build awareness among the population.

We should not forget that cardiovascular events, beyond their human and social costs, are much more expensive from an economic perspective, than a campaign to encourage healthy habits among the population. Prevention is the best solution and the use of communication tools, an irreplaceable tool.

### On the radio ...

# FCC and its excellent work in preventing occupational hazards

The space in the radio show "Hoy por Hoy" known as "Prevención en las Ondas" in Channel 100 Madrid north, sponsored by the Technical Office for the Prevention of Occupational Hazards of the Business Association of Alcobendas (AICA) dedicated a section to FCC as a multinational Spanish company that has a leadership positioning when it comes to Occupational Safety and Health.

During the program, Juan Carlos Sáez de Rus, Corporate Director of Occupational Safety, Health, and Welfare, described the

> Safety, health, and welfare at a company are important for its personnel, families, and for the company's productivity, competitiveness, and sustainability.

> > "

structure and management of FCC's prevention services, considered an advanced service, with shared prevention resources, thereby specialising management of these activities. FCC also counts on the essential support of senior management and of its the Board of Directors thanks to a safety and health policy for the entire organization that bolster the company's "Zero Accidents" objective, a not-too-distant goal, with the rate of accidents dropping almost 40% over the past five years.

During the radio show, the three most important programs implemented and being developed at FCC were discussed:

- The campaign: "At my job, prevention IS worthwhile. Certainly YES", with a positive message for participating in the safety and health objective.
- The Strategic Road Safety Plan and the Company's commitment to social, labour, and economic mobility and the fight against traffic accidents.
- The "Healthy Company" initiative, stressing that we are the first Spanish Company (FCC Medio Ambiente

of a company is having personnel that are well prepared, motivated and HEALTHY in Tarragona) which through various programs, in addition to preventing occupational hazards, encourages healthy lifestyles in terms of food, physical exercise, taking care of our hearts and backs, and by promoting healthy habits.



Click here if you want to listen to the program:



### 25 DE NOVIEMBRE

# DÍA INTERNACIONAL DE LA ELIMINACIÓN DE LA VIOLENCIA CONTRA LA MUJER

# Knowledge

### 3<sup>rd</sup> Energy Services Congress

# Upgrading and management of the public lighting service

in Santa Susanna (Barcelona) through an Energy Services Company (ESC) model.



By: Luis Pujol Technical Architect of the Santa Susana (Barcelona)

Teresa de Ugarte



The lighting system in Santa Susanna is currently being upgraded in order to improve its efficiency after the municipal technicians became aware of the obsolescence of most of the installations, the huge electricity bill, the lack of maintenance and sufficient investments to ensure adequate lighting services.

The objective of this article is to briefly explain the progress achieved since they became aware of the problem until now. So far, FCC has replaced about 3,000 lights.

An in-depth analysis of the all the aspects of the original scenario is the only way of assessing the suitability and viability of a project such as the one underway in Santa Susanna.

### **Contract awarded to FCC**

Last February 2013, the City Council of Santa Susanna and FCC Citizen Services executed a contract for the energy supply and end-to-end management of the city's public lighting system. The term, of the contract for the comprehensive management of this lighting system has a term of 10 years and 4 months and is worth a total of 3,614,278 euros.

The services to be provided include energy supply and management, preventive maintenance, full guarantee of the installations,



Xavier Grau Alafont, director of the Environment Production Department in Barcelona (capital) was in charge of giving the opening speech at the seminar.

the initial investment for the upgrading of the lighting system, and the promotion of energy efficiency improvements.

### Year 2011. Point "0". Drafting of the public lighting master plan.

In 2009, the City Council lacked an inventory of the points of light throughout the city, a map of the network, the location of the panels, and of the power; in fact, it lacked nearly everything. It was obvious that the facilities had to be upgraded. As a result of



this analysis, the City Council requested the assistance of the Provincial Council of Barcelona to help them draft a Lighting Master Plan which was drafted between 2010 and 2011.

The Master Plan included a complete inventory of the existing lighting network, with geo-referenced maps, identifying all of the points of lighting, the power, brand and model of the lamps and masts. It identified the control panels, the power contracted, and its deficiencies.



In addition to this documentation, which did not exist up until then, the information provided made it possible to obtain data that underscored the inefficiency of the installations.

When the inventory was drawn up, there were 2,700 points of light of which 81% of the fixtures, representing 90% of the installed power, were mercury-vapour lamps.

The Master Plan identified 39 control panels, analysed their characteristics, protection mechanisms, installed and contracted power, overall condition and deficiencies. Of the 10 control panels with flow regulators, only two were functioning.

The Master Plan offered another level of consistent information for analysing the network, studying the levels of light, and compliance with the provisions of Act 6/2001 on the protection of the night-time environment.

Of the 28,164 metres of road lighting, 18, 391 meters were detected which were below the appropriate levels, 7,989 were correct, and 1,784 were above the optimal levels.

One of the conclusions arrived at after analysing this data was that despite the considerable installed power, the illuminance of the network was not up to par and that therefore, the installation was not sufficiently efficient (lum/w.).

### Year 2012. Drafting of an energy audit

After the Master Plan had been submitted, the City Council commissioned the drafting of an energy audit of the lighting system in order to have a document that analysed the possibilities for improving the efficiency of the public lighting installations.

During this period, the urbanisation work of a hotel sector was completed, which meant that the 2,700 original points of light increased to the current 3,236.

The audit made it possible to:

- Update the existing inventory.
- Calculate existing and foreseen consumption.
- Draft an economic study: budget and the return period of the investment.

According to the audit, energy savings would be 55% and the investment required would be nearly one million euros.



### Year 2012. Energy lighting services contract put out to tender

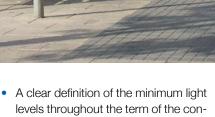
After analysing the different alternatives; investment with own capital was not viable and renting with a financial entity had been ruled out, it was decided to contract the supply of energy services and the lighting network maintenance through an Energy Services Company (ESC).

With the help of the Provincial Council of Barcelona and its ELENA program, the tender specifications were drafted between May and September of 2012 which was finally published in October to launch the tender process.

The contract award was decided in December 2012, hiring FCC for the management of the comprehensive lighting service.

The other particularly important parameters outlined in the contract were:

- No subrogation of personnel on the part of the company awarded the contract.
- The installation of a telecontrol system at each of the control panels.



- A clear definition of the minimum light levels throughout the term of the contract. Map of lamps, Permanent energy audit.
- A specific definition of operation schemes, schedules, and deadlines for the repair of failures. ,

### Applied technology

It is essential for FCC to use leading brand equipment even though the initial cost may be higher, since this will ensure the success of the contract. FCC must be responsible for the comprehensive long-term management of the installations.

Equipment used:

• Double-level electronic ballasts at 2,359 points of light.

Harvard SmartNight model. Consumption reduced by 30% during a 6-hour period.

- 2.359 metal halide lamps with ceramic arc tube, 50/70/100/150 w.
  General Electric Constant Color Streetwise. Ra70 i 3000° K model.
- 929 new BASIC and IDEA, Salvi brand lamps.
- 140 LED 15 w lamps, LSL model, Grah brand.
- 280 MASTER LED GA110 by Philips 24 w tubes.
- Installation of the Energest telemanagement system.

- 60,000 € to be invested in improving the control panels.
- Energy efficiency was encouraged, equally dividing (50% the City Council /50% the contractor) the profits provided that the performance and service levels were maintained. provided that the services and the service levels were maintained.
- An external quality control service would be hired to assess the quality of the services, performance, equipment and materials.

#### Year 2013. Execution. Implementation of measurements.

Initially, the foreseen execution period for upgrading the installations (P4) was 6 months under the terms and conditions of the Agreement, with the deadline set at 5 August 2013. This objective was achieved, being one of the few Energy Services contracts that complied with the specified execution period.

FCC had to perform another complete audit of the network to submit proposals for adjusting the installed power. In order to carry this out, it counted with the experience of a

### Results

#### **Improved lighting service** Examples:

leading engineering firm in the sector which also collaborated in the following steps:

- Selecting the most appropriate luminaries and lamps.
- Performing more than 40 lighting studies to determine the power that was to be installed.
- Performing four tests by replacing the existing equipment and the lamps that were to be kept, taking lighting measurements before and after these operations.
- Determining each f the specific power of more than 3,200 points of light.
- Verifying the technology of the telecontrol system at each control panel.

After this necessary preliminary phase for carrying out the work and thanks to the collaboration of the City Council and its extensive work the execution of the project was completed within the foreseen term.



c/Pirineus - BEFORE

Improved lighting with much less power



c/Pirineus - AFTER





#### **Decreased consumption** Consumption fell from 12,000 before the upgrading to 5,000

Conclusions



- Installed power was reduced from 614,640 w to slightly more than 200,000 w.
- The installed power/point of light ratio fell from 190w/point of light in 2011 to the current ratio of 65w/point.
- Energy consumption of the installation dropped 60%.
- Lighting services have improved considerably. More light, better illuminance, more standard, and better colour rendition.
- The cost of the service was down 25% versus 2011.
- There's still a lot to be done. SAFETY!!!

From a technical perspective, the viability of an operation such as this one mainly depends on how much room there is for improving efficiency. In Santa Susanna, the installed power/point of light ratio was 190w/ point of light. To be considered efficient, the ratio of an installation should be close 100 w/point of light. Accordingly, the ESC formula would be the most attractive one for cities or towns which have a large presence of mercury-vapour lamps at their installations.

The technical quality of the preliminary work, the audit and tender specifications, are essential for ensuring the viability of the operation. Risk increases or diminishes on whether or not there are subrogated personnel.

A contract based on improved energy efficiency does not solve everything.

0

There is still a lot that has to be done!

# The Place

# Panama, a key enclave

Panama has become an international business hub and is no longer identified only as the home of the Panama Canal. Its booming economy and internationally recognised banking system have made it one of the most solid countries in the continent.



Panama City was founded on 15 August 1519 by Pedro Arias Dávila. Two years later, pursuant to a Royal Charter dated 15 September 1521, it was granted the title of "city".

Situated on the shores of the Gulf of Panama in the Pacific Ocean, east of the mouth of the Panama Canal, with a population of more than 1.4 million, it is the capita and the largest city in the Republic of Panama,











the largest population hub within the area of the route, region, or Metropolitan area of Panama which also includes the La Chorrera, Arraiján and San Miguelito districts. It occupies an area of 275 km<sup>2</sup> in a country with a territorial size of 75,517 km<sup>2</sup>.

Panama is a country with a population of more than 3.8 million, according to the figures of the 2012 census. It has recorded strong economic growth and is country where people from many different nationalities have settled, making it one of the most ethnically diverse country in the world. Of the total population, 70% of the Panamanians are of mixed race with 14% being mulattoes, 10% white, 6% indigenous population, and 1% of Asian stock, mostly from China. The population density is particularly notable in the coastal region of the Gulf of Panama, especially in the Azuero Peninsula, and in the metropolitan areas of Panama City and of Colón

#### The country's economic growth

During the last decade, Panama has experienced significant urban growth with the urban population now accounting for 59% of the country's total. The transit of ships through the Panama Cal, the port and transport, warehousing, communications activities plus the more than 150 international banks with headquarters in the city are boosting the country's economic growth and an increase in the construction of highrise buildings.

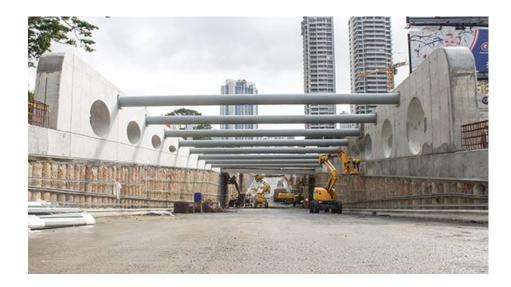
Until now, the most important infrastructure in the country was the Panama Canal. Nevertheless, in recent years, the construction industry has grown and there are many mega projects, mostly in the capital, which will imply great benefits for the entire country.

The construction boom has generated many job opportunities for the people of Panama and international companies have shown an interest in investing in the isthmus.

Since it landed in Panama, FCC has generated more than 4,500 jobs, both administrative staff as field workers











# Our business in Panama

With more than 10 years operations in Panama, FCC Construcción, has become one of the country's leading construction companies. It is currently the second most important contractor of the National Government and is executing several projects, Including Panama Metro Line 1, a Hospital Complex, a new building for the Electoral Board, and the Via Brazil, PAC4 corridor.

FCC's recognised expertise and the quality of the projects has been the best letter of presentation for the company in a country that is currently modernising and growing at the rate of major cities.

FCC's projects are also executed for private companies that place their trust in activities as essential as the construction of a hydroelectric plant in the Chiriquí province and the access roads to the Mineral Panama mines in the Coclé province.

Since it first landed in Panama, FCC has generated more than 4,500 jobs, both administrative as well as project workers. Its work focuses not only in construction but also in getting closer to the community, especially the young and children who, for FCC, represent the future of this country which is increasingly becoming the centre of this region. FCC's commitment goes beyond delivering a well-executed project, meeting deadlines, but also, one of the basic premises is to build while maintaining an environmentallyfriendly approach.

# Description of **Projects**



#### Panama Metro Line 1

This project represents not only the first metro in Panama, but also the first one in all of Central America. With the construction of Line 1, Panama aims to design a mass and modern transport system which significantly reduces travelling time from one place to another.

The Panama Metro is being built by the Line 1 Consortium, an FCC-Odenbrech partnership with proven expertise in the construction of underground systems throughout the world and a strong presence in Panama.

The metro route stretches from the area close to the Grand Transport Terminal in Albrook up to the San Isidro sector with 15 stations throughout its length. Metro Line One will benefit more than one million people who travel by public transport every day.









#### **Hospital Complex**

The project contemplates the design, urbanisation, environmental impact studies, building, finance, and fixtures and fittings of Panama City's Hospital Complex. The medical facilities will have 220,000 m<sup>2</sup> of floor space, with 49 operating rooms, more than 200 medical offices, and 1709 beds, making it a reference in the Central American region thanks to its equipment and functionality.

The Hospital Complex includes 17 buildings which will house several medical specialities; paediatrics, cardiology, internal medicine, maternal and child healthcare, operation rooms, outpatient facilities, as well as a day hospital, several specialised rehabilitation centres, and a hospital residence. All of these facilities will make it possible to treat more than one and half million people.





### Description of **Projects**



#### Vía Brazil Corridor, Sections I and II

It is part of Panama City's Traffic Reorganization Plan which aims to speed up traffic and reorganize the capital city's thoroughfare network, improving the connections between the north and south corridors. Both projects are being built in the centre of the city, in four of its major avenue intersections.





#### **The Pacific PAC 4 Access Channel**

This project involves the excavation of a new channel in the Panama Canal linking the new locks with the existing Gaillard Cut, the narrowest stretch of the Panama Canal located near the entrance to the canal on the Pacific Ocean. The project entails the construction of a 3.7 kilometre, 200 metre wide channel leading to the locks in the Pacific. In includes the excavation, transport, and dumping of 27 million cubic metres of rocks in addition to the access roads and the water-drainage channels, the creation of deposits, and the cleaning of an approximately 80 hectare target range.





### The Regional Luis "Chicho" Fábrega Hospital

The new Luis "Chicho" Fábrega Regional Hospital is being built in the Veraguas province. The new 46,460 m<sup>2</sup> facility will house the central services in the basement and ground floor plus three floors for in-patients and emergency services. It will also have 313 beds and parking spaces.

The three main corridors of the hospital will serve as the backbone of the building which will befit not only the population of Veraguas but also people from neighbouring regions.







#### Coastal Road - Minera Panama

This project is 120 kilometres west of Panama City and 20 kilometres from the Caribbean coast in a forest region with high levels of rainfall and is part of the Cobre Panama project, currently in the construction phase to develop a world-class copper mine in the province of Colón.

The work consists of the execution of a 6.6 kilometre access road connecting the mine with the facilities on the coast. It also contemplates safety measures for the residents along the road such as sidewalks and safety measures to protect pedestrians, complying with Panamanian and international regulations and enabling the implementation of the best safety practices.





ന

### Description of **Projects**



#### **Bajo Frío Hydroelectric Project**

Situated in the Chiriquí province near the border with Costa Rica, the project involves the construction of a gravity dam, 56 meters toll and 405 metres long built with conventional and concrete and roller-compacted concrete (RCC9).

The dam has two spillways and three generator rooms. In addition, the project involves the upgrading of the roads to the dam, a bridge over the Chiriquí river, a 2.1 metre long conducting channel, the forebay and the construction of the intake for the Salsipuedes generator room located at the end of the water conveyance channel and a discharge channel approximately 110 metres long, through which water will be returned to the Chiriquí Viejo River.









Repair of the East access road to the Centenario Bridge

This is an emergency project commissioned by the Ministry of Public Works as a result of the landslide following the 2010 heavy rains which included the repair of the access road on the east of the Centenario Bridge by previously stabilising the road and building a screen of absorbent piles with a 1.0 metre diameter and up to 42 metres long.

The screen was attached using high-capacity active soil anchors weighing 150 tons distributed along two lines.



### Refurbishment of the west access road to the Las Américas Bridge

FCC executed a project for stabilising the west access road to the Las Américas Bridge, an emergency work commissioned by the Ministry of Public Works to improve the instability of the slope.

The project included investigations to determine its design which consisted of tests, the installation of inclinometers and pressure gauges which are still being monitored.









### New Electoral Court Building (inaugurated recently)

The Electoral Court's comprises three buildings linked together into an "H" with the two lateral buildings covered with metal and the centre one with concrete. The five storeys of the complex contain public and private offices, an amphitheatre, a hall for events, a museum, a library and a sub-basement with parking space and service facilities.

These buildings were built on top of piles cast in-situ, with reinforced concrete pillars, beams, and slabs. The slabs and beams are complemented with a post-tensed cable system to optimise their design.



# Integrating a local and international workforce













FCC is a company where various professionals converge and contribute their skills in the projects where they are assigned. Many leave their native countries to work and to put into practice their knowledge and go to a country which they do not know. The Panamanian professionals contribute all their knowledge and are willing to join forces and benefit from the expertise from those who come from abroad.

### What does working at FCC mean for you?

Working at one of the leading international construction companies that offers the best benefits for its collaborators is a source of pride. David Aguirre, deputy-manager of FCC Panama Accounting Department.

#### How would you describe the growth of construction in Panama and, hence, FCC's growth?

The construction boom was already in place when I arrived in Panama. It is obvious that Panama has great demand and a great need for infrastructures and FCC is a construction company that offers great quality, knows how to execute construction work well, and I believe that for the company coming here has been very positive, and this is also true for Panama since it is good to have the presence of a quality construction company such as FCC. Engineer José Antonio Checa, Safety and Health Manager at FCC Centroamérica Panama is undergoing continuous growth and has a great projection in this respect, since there are many projects that still have to be executed. In Panama, FCC experienced significant growth two years ago and its continuity here will depend on how well it manages its current projects. Engineer Victor de Cos, Bajo Frío Hydroelectric Facilities, Production.

### How was the interaction among Spanish and Panamanian workers?

The cultural exchange has been very good and we have learned how to be with people who are outside the country, despite the time difference. The process has been interesting and both parts have learned from each other. Engineer Aileen Aguilar, head of Tenders in Panama.

### How do you see FCC's future in Panama over the next ten years?

I believe that FCC's future in Panama will continue to be very positive since there are still many projects to be executed and FCC should have no problem in continuing to execute projects for the government or for private enterprises. Abdiel Sanjur, Accounting, Panama Tenders Department.

#### What do you expect from FCC?

I expect it to maintain its status in our country since it meets all requisites for contributing to the development of Panama's road network. It is a good example of what a foreign company that is responsible can achieve in other countries. Engineer Betzabé Filós, deputy manager in the Collections Department.

























a

e p l a

# Ricardo Martinelli inaugurates the Electoral Court building

The new building housing the Electoral Court of Panama, constructed by FCC, was officially opened on Wednesday, 6 November, by the president of the republic, Ricardo Martinelli Berrocal, and Electoral Court judges Erasmo Pinilla, Eduardo Valdez Escoffery and Heriberto Araúz Sánchez.

FCC Construcción de Centroamérica Chairman Victor Alberola, FCC Construcción de Centroamérica Vice Chairman Aurelio Callejo, FCC Building Manager Juan Antonio del Saz and other company executives also participated in these events. The participants had the opportunity to appreciate the details of this new city landmark. Built in the neoclassical style, its functional design and superb finish quality make this one of the finest public office buildings in the country.

The Electoral Court's comprises three buildings linked together into an "H". The five



Ricardo Martinelli (right), president of Panama, with Victor Alberola, the Chairman of FCC Centroamérica.

storeys of the complex contain public and private offices, an amphitheatre, a hall for events, a museum, a library and a subbasement with parking space and service facilities.

The project's site is a 3,184-hectare polygon, and its cost was 30 million dollars. The project contemplated the design and construction of the building, including plumbing, wiring, sanitary water and rainwater systems connected to public utilities. The design is environmentally friendly, since it collects rainwater for use in the restrooms. With this FCC project, the Electoral Court can get right to work in a building whose main commitment is to ensure respect for the freedom, honour and efficacy of the electoral system. Last 18 October, in Panama, the Chairman of FCC, Esther Alcocer Koplowitz, was awarded the Grand Prize for Business Growth granted by the Latin American Business Council (CEAL) to the Citizen Services Group.HRH the Prince of Asturias, Don Felipe de Borbón, the Panamanian Minister of Canal Affairs, Roberto Roy, and the Spanish Minister of Foreign Affairs and Cooperation, José Manuel García-Margallo, were present at the award ceremony.



From left to right: José Manuel García-Margallo, Roberto Roy, Esther Alcocer Koplowitz and Samuel Urrutia.

# **Esther Alcocer Koplowitz** honoured with the CEAL award for FCC's growth in Latin America

The CEAL award is in recognition of FCC's expansion in the main Latin American countries, where it has been operating for 15 years through local companies and using local resources, such as its subsidiaries in Panama and Costa Rica. This region accounts for 11.5% of group revenues (1H13 figures), the bulk of which is attributable to infrastructure development.

In his presentation, Mr. García-Margallo lauded Spanish companies' progress and growth, highlighting FCC as "a success story" which "contributes like few others" to strengthening Brand Spain and Spain's image abroad.

Esther Alcocer expressed her gratitude to CEAL for the award "on behalf of FCC, which I have the honour of chairing and which my mother, Esther Koplowitz, has made into one of the world's leading infrastructure and citizen services companies". She added, "For all of us at FCC, this award is an enduring testament of gratitude and homage to those who contribute to social and economic improvements in the continent, and another incentive to our development here, in Panama, and in all of Latin America".

CEAL met at the capital city of the Isthmus coinciding with the Latin American Summit of Heads of State and Government. The Business Council, founded 23 years ago in Mexico City, is a network of Latin American businessmen. Their mission is to encourage the participation of its members in interchange and cooperation currents in relation to the aspects in which private companies could contribute to strengthening their reciprocal ties and to the social-economic progress of their respective countries.

the place







# First test ride of the Line One trains of the capital city's underground system

On 13 September, President Ricardo Martinelli of Panama accompanied by Metro Executive Secretary Roberto Roy took the first drive of unit 9 of one of the 10 trains already in Panama and part of the fleet of vehicles for Line One of the underground system.

These test drives, known as dynamic tests, will make it possible to evaluate all the ope-

rational components of the vehicles to check the train's circulating capabilities.

The first motion tests of the trains are performed at speeds ranging from 1 to 15 kilometres per hour and, subsequently, at their maximum speed which is 80 kilometres per hour. The objective of each of these test rides is to check the performance of the trains when travelling in a straight route, at curves, their acceleration and breaking capacity, as well as to check how they from one to another rail without having to change their direction.

These protocols aim to ensure the high level of efficiency and safety of each of the components of this new means of transport that will be carrying more than 15,000 users per hour in each direction.

These tests also serve to confirm the functioning of the train's interior lighting, the system for opening and closing the doors and also of the information monitor screens installed throughout the unit.





In the photograph, the Chairman of FCC Centroamérica, Victor Alberola, with the country's president, Ricardo Martinelli.

The Patios and Workshops area, the future Operations and Maintenance Centre of the System, occupies an area of approximately 120,000 m<sup>2</sup>. This where the trains which have arrived in Panama up to now are kept and 10 more vehicles are expected to arrive in Panama over the next three months to complete the total fleet of 20 units.

The "Metropolis" type trains are being manufactured in Spain. Each train is 52 metres long, 3.85 metres high, and have three wagons with a capacity for accommodating 200 people per wagon, that is, a total of 600 per train.

The trains were built with an engine at each end and a wagon in the centre, which will make it possible to travel in any of the two directions. Each wagon has wide doors, level floors, comfortable seats, an isle between each wagon, an information display, and natural light to improve the passengers' safety and comfort.

#### Progress so far

Line One of the Panama Metro, which will benefit about one million people, is now nearly 92% complete. Work is currently focused on performing the required tests of all equipment and systems, such as the catenary suspension (the structure that supplies energy to the trains), the railway lines (rails and their components) as well as other components and equipment. Civil works are also underway at all stations, including painting, the covering of ceilings and walls, floor polishing, guard rails, and windows. To date, the Albrook, 5 de Mayo and Fernandez de Córdoba stations are at the most advanced stage, followed by the Via Argentina, Lotería and Santo Tomás train stations.

Once this has been completed, work will begin on replacing the slabs along Line One of the Metro, which will be followed by landscaping work in the areas near the points of access.



# Communities

## Czech Republic

# Znojmo and the wine festival



Znojmo, one of Moravia's most ancient cities is situated in southern Moravia in the Czech Republic, near the border Austrian border and 44 kilometres southeast of Brno. Perched on a protruding rock formation on the left back of the Dyje River, where a castle dominates the entire valley, the city has narrow and winding streets where baroque and renaissance style houses welcome visitors.

Founded in the 7th century, Znojmo became the dominant city when the Great Moravian Empire was at the peak of its power. During the 11th and 12th centuries, Prince Břetislav I built the city's fortress. In 1226, the king granted the city its charter which included the right to produce wine and collect taxes, even before these privileges were granted to Moravia's capital city, Brno. Surrounded by walls, Znojmo is a medieval town situated in Central Europe, with its Gothic church of St. Nicholas, built by Emperor Charles IV in 1348, its baroque globe-shaped pulpit, one-of-a-kind in the world, and the City Council Tower which dates back to 1446 and can be seen from afar and from various parts of the city.

The city's most ancient monument is the Romanesque Rotonda of the Virgin Mary and St. Catherine, dating back to the 11th century and situated near the castle, one of the most impressive and unique architectural monuments in the Czech Republic.









# **.A.S.A.** cleans the city after the wine festival

Even abstinent people can imagine what goes on in Znojmo two hours after midnight on Saturday, when the wine festival ends. But few know how much work is needed to keep it from being obvious in the morning. The company .A.S.A. EKO Znojmo has traditionally made sure the city is sparkling clean on Sunday morning.

One of the misconceptions and naive notions is that .A.S.A. begins to clean up the mess when people stop making it. It doesn't work that way. The cleanup needs to be continuous and the cleaning schedule defined at least six months in advance. It should be done in such a way so that visitors to the wine festival don't feel that they are in the way of .A.S.A. employees. The less people pay attention to cleaners during the wine festival, the more .A.S.A. has to turn to keep everything spic and span. Moreover, it must do this quickly and quietly so that the cleaners are not seen more than is absolutely necessary. Therefo-







One of the oldest features, however, is the huge underground area comprising 30 kilometres of urban tunnels under the houses, cities and squares of the city's historic district. At one point, these tunnels were used to store wine, munitions, and also served as a refuge to hide from invaders. Nearly one kilometre of these tunnels has been dug up so that visitors are now able to tour a great part of this underground corridor. Very picturesque bread-and-breakfast houses have recently been inaugurated, making Znojmo a very special place for resting and for enjoying a pleasant holiday. Cycling and trekking routes have been designed to be able to enjoy the natural beauty of this region.

The city is famous for its wine production and a music festival is organised every year coinciding with the wine festival.

Znojmo is considered the Czech capital of pickles, since it is in this city where the best pickles of the country are produced, with a distinctive sweet and sour flavour, which are accompanied by the typical Znojemský guláš, sauce, a very special treat for the taste buds. It also produces a very delicious and award-winning beer known as Hostan. Unfortunately, the local beer brewer closed











re, the 174 plastic bags placed throughout the urban conservation area are emptied during the entire festival so that visitors barely notice it. And cleaning requires a certain forte! This proven method is reliable because people at that moment have entirely different priorities. Some for the most part themselves. a few years ago, but despite this, several pubs proudly offer the local beer.

#### Wine region

Znojmo is the centre of a famous wine region. When visiting the city, one should spend some time in wine-tasting and enotourism activities, enjoying the city's numerous restaurants that offer a varied selection of the local wine.

The grape harvest at Znojmo offers a good opportunity to try good wines, the young sparkling fermented wines and the delicious cuisine of this region. The wine fes-

### Visit the surrounding areas

The Monastery of Louka, over the centuries considered one of Central Europe's most important religious sites, is not far from Znojmo and is well worth a visit. Visitors can taste a wide selection of wines and visit the winery and museum.

The National Podyjí Park and Šobes, one of the best European vineyards and the Blue Wineries in Nový Šaldorf are also recommended for a visit.



tival commemorates the city's medieval history and the year 1327 when the King of Czechoslovakia, John of Luxembourg and his wife Elizabeth Přemyslovna visited the city with their royal court.

#### The more you have in your head, the less you look for a trashcan

The old rule that if one person is enjoying himself, the others must watch out for him applies three times as much in the case of the company .A.S.A.

Five collection lines for plastic bags cannot of course handle the onslaught of waste. Wooden boxes and large containers, thir-

It would be too late if it was necessary to wait until the event ended before starting to clean up

"

teen altogether, provide assistance, with each of them swallowing eleven meters of cubic filth. But not even this appetite for cleaning is enough. When the human swarm starts to run out of breath on Friday and Saturday evening after ten o'clock, garbage collectors and special sweepers take a deep breath. But even these two compact professionally run Egholm machines can't sweep up everything. That's, why this must be done by those who caused the mess: human beings.

### The assault on garbage starts two hours after midnight

With strategic precision, the sophisticated cleaning plan culminates after midnight on Saturday, when the .A.S.A. workforce gathers on Freedom Square in Znojmo, 80 total (another 50 workers were hired for the festival). The cleaning work begins at night and ends at daybreak. And only when everything has been cleaned to such perfection, as if the Znojmo wine festival never existed.

#### The vandal is worse than the slob

Lastly, I experienced a similar buzz of brooms during the autumn shift of the







### Famous people

Znojmo is known as the city where the peace treaty was signed by Napoleon Bonaparte and Archduke Charles after the Battle of Wagram in 1809.

It is presumably the birthplace of Leopold Loyka, the driver behind the wheel of the vehicle where Archduke Francis Ferdinand was assassinated in Sarajevo in 1094, the incident that sparked the First World War.

The squares fill up with life music, dances, medieval jousts and the nights light up with fireworks. It is highly recommended to visit this city when it celebrates its wine festival.

Znojmo is also the birthplace of the sculptor Hugo Lederer and the writer Charles Sealsfield.



National Front - the only difference being that this time with the obligatory jug. The cleaners, however, had completely different ideas in the sleepy hours after midnight. Although the mess was disproportionately lower than last year, the streets looked unappealing. But all it took was half an hour to begin making all the cups, paper and plastic bottles and trash to somehow disappear into the bowels of garbage trucks. Drivers and garbage men dart about in perfect harmony, clearly denoting many years of experience. While some are removing the trash, others are picking up the cleaning signs, because what is certain about this extravaganza is that everything must be restored to its original condition.

"The wine festival is our single biggest annual event, but I have to admit that we are more worried about vandals than about those who make a mess. We're powerless to do anything about them, although we were able to protect parking machines with plastic tape, something which definitely paid off," says .A.S.A. Eko Znojmo manager Josef Esterka, who along with Josef Zábraha, is one of the main conductors of the cleaning orchestra.

So, if we want our Sunday to look sparkling after the wine festival, then hats off to those

who with iron regularity clean up the city so that it looks immaculate again in the morning. It should be added that A.S.A.S.I.N.S. know how to clean very well.

> Article featured in Znojemsko Magazine (www.znojemsko.cz)

