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Installation of sub-stations, technical rooms and lifts in the Pacifico and Aluche stations, Madrid underground, for €15.5 million.

Finishes for the Aranjuez Plaza shopping and leisure centre in Aranjuez, Madrid, for Superco.

Phases 1 and 2 of a hotel complex in Portimão (Portugal).

Structure and drains for the new district hospital in Sant Boi, 2nd phase (Barcelona) for the Hermanos de San Juan de Dios.

Structure and finishes of the Torre Quadrat in Panamá, for €9.7 million.

Renovation of the Pan-American Highway between Puente Ipeti and Agua Fria, for the M&S subsidiary, for €9.5 million.

Adjudications

Adjudications

Work starts on the Hotel Vela in Barcelona

The project, for the Barcelona Port Authority, involves building a hotel and offices in the new estuary in the port of Barcelona and operating it for 30 years.

Barcelona City Council has granted the licence to build the Hotel Vela above ground in the port of Barcelona new estuary, thus continuing the work under way underground. The project is valued at some €154 million.

As its name suggests, the hotel is in the form of a ship's sail and is 26 storeys high. With a capacity of 480 rooms, it was designed by the architect Ricardo Bofill. Once finished, it will be one of the city's architectural masterpieces.

The hotel has a built up area of some 69,000 m², of which 50,000 are above ground; there is also an underground car park of 19,000 m² and landscaped grounds covering some 98,000 m².

A second phase, also included in the concession, will involve building 45,000 m² of offices and another car park of 6,000 m².



Computer graphic

FCC to build a new waste water treatment plant in Alicante

The Consell d'Infraestructures i Transports of the Government of Valencia has awarded FCC, in a temporary joint venture with another company, the contract to build the L'Alacantí Sur integral system for sewerage, treatment and re-use in Alicante.

The work involves building a waste water treatment station, a pumping station, a 5.3 km long sewerage inlet and an overflow for treated water.

The waste water treatment station is designed for a flow of 30,000 m³ per day and will include the biological treatment of sludge using prolonged aeration. It will have a water line, sludge line and advanced tertiary treatment using reverse osmosis membranes with a daily capacity of 10,000 m³/día.

The contract is worth €39 million and the building period is set at 25 months.

FCC to build the new Salamanca hospital

The department of health of the Castile and Leon government has awarded FCC the €166 million contract to build the new Salamanca hospital.

The new building will be located on the site currently occupied by the city's general and maternity hospital. Removals, demolition and new building will be carried out in phases to provide a modern and much larger complex - the current 90,000 m² of buildings will be increased to almost 200,000 m².

New features include the creation of a new wards unit with six stories in a four-pronged comb layout.

The buildings will be completed with a surgery block and an intensive care unit on three floors, a five-floor outpatients' building, a cancer day hospital and dialysis centre, a reanimation centre, two administration units and a kitchens block.

When finished, the hospital will have 912 beds, 23 operating theatres, 44 dialysis posts, 252 outpatients' clinic, 36 day hospital posts, 25 emergency rooms, 34 observation posts and 2,000 parking spaces.



New hospital in Salamanca

Events

Events > Norias de Santa Victoria urban park, Valladolid

The Norias de Santa Victoria urban park inaugurated in Valladolid



The new Norias de Santa Victoria park in Valladolid occupies the site of the city's old sugar refinery, an example of 19th century industrial brick architecture. The original building dates from 1899 and was designed by the engineer C Escobedo.

The new project conserves the industrial spirit and the idea of re-using materials. The original buildings have been recovered and renovated as far as possible and integrated into the park, destined for various uses.

The park has large play areas, a cafeteria, lakes, a sports area with six paddle courts, green areas and the large central building of the sugar refinery.

The metal waterwheels have been fully renovated and installed in two lakes which, together with the canals and large cafeteria lake form a water axis as a memory of the old purpose of the waterwheels for transporting sugar beet.

The lime kiln, almost 30 m high, has also been integrated into the park.

The two covered paddle courts are located in the old storage buildings which form the sports area, together with the three adjoining buildings, next to which a fuel tank has been conserved and renovated as a venue for rock concerts.

Technical data

Project name:

Design and undertaking of the APE 46 landscaping project.

Promoter/owner:

Valladolid City Council

Budget:

9.447.366 €

Timetable:

15 months

Project team

Department manager:

Javier Courel Martínez

Site manager:

Beatriz Fresno Martínez

Installations department manager:

Benjamin Huerga Mojerón

Production manager:

María del Pozo Díez

Administration manager:

Daniel Pérez Molpeceres

Foreman:

José María Díez Fernández

Events

Events > La Puebla health centre, Palencia

FCC builds a health centre in Palencia



FCC has built the La Puebla health centre in Palencia on a site occupied by a building, the plain brick facades of which were designed at the start of the 20th century by the distinguished Palencian architect Jerónimo Arroyo.

The project involved demolishing the old building except for its façade which has been integrated to the new building by supporting it with an exterior metal structure and foundations based on solid concrete fingers and a screen of absorbent piles to prevent vibrations that could affect its stability.

The contrast between the old façade and the new building depends on the programme's requirements and use and involved creating large openings to take advantage of the views over a large park and natural lighting.

The health centre, for over 21,000 users, has a total area of 4,310 m² with a basement, ground, first and second floors. It is laid out according to the functional requirements of the centre regarding use and the separation of the public space and that of the centre itself, distinguishing between the areas for emergencies, ordinary attention, administrative area, parking and the centre's general services.

Technical data

Project name:

La Puebla health centre

Promoter/owner:

Department of health and social well-being of the government of Castile and Leon

Timetable:

24 months

Project team

Department manager:

Sergio Ramos Alonso

Site manager:

Roberto Porres Izquierdo

Production manager:

M^a Jesús Martínez Giménez

Administration manager:

Jorge Rubio Rosa

Foreman:

Francisco José Yañez de la Fuente

Events

Events > Council offices, Badalona

New council offices, Badalona (Barcelona)



FCC has built a new building in the centre of the city for the municipal of offices of the Council of Badalona (Barcelona).

The building covers 16,000 m² on eight floors. The lower two, which occupy almost the entire site, are below street level and provide parking. The ground and first floor, visually collected by a double space lit by skylights, is mainly designed for municipal services that attend the public. The remaining floors, with a rectangular area of 15 x 72 metres, contain council offices.

The foundations up to the first floor are of brickwork for exterior insulation and finished with a ventilated façade of natural stone except in the parking area where there is an aluminium structure. In the rest of the building, the façade is an aluminium curtain wall with low emission or printed glass, depending on its location.

The exterior paving giving access to the building and the flooring in the public areas on the ground and first floors are of natural stone. In the upper floors, raised paving has been installed to provide greater flexibility for installations.

Technical data

Project name:
 UTE NOM

Promoter/owner:
 Badalona Council

Budget:
 € 13.695.944.06

Timetable:
 28 months

Project team

Department manager:
 Enrique Fernández Cortines

Site manager:
 Fernando Moncayola Ibor

Production manager:
 Julio Morales

Administration manager:
 Sergio Sánchez Muñoz

Foreman:
 Pedro Sánchez Espin

Events

Events > Barcelona exhibition centre

FCC builds pavilion five of the Barcelona Exhibition Centre

FCC has built pavilion five of the Barcelona Exhibition Centre in a temporary joint venture with another company. The work consisted of building an exhibition pavilion of 30,000 m² with an auxiliary area for loading and unloading as well as the building of a central axis to join the various previously built pavilions in the Barcelona Exhibition Centre.

The work was carried out in various phases and the final area built was 53,938 m².



The main pavilion measures 192 x 96 m in plan. The most important part is the “central axis,” a winding passageway of plain concrete 260 m long supported on 11 m high circular pillars, connecting the various exhibition centre pavilions.

The loading and unloading area consists of a building 43 x 26 m in plan and a large esplanade of 6,400 m² for vehicle manoeuvres. A single storey car-park was also built.

The project also included installations for kitchens and restaurants as well as escalators and lifts.

Technical data

Project name:
UTE FIRA P-5

Promoter/owner:
FIRA 2000

Budget:
€ 55.013.223

Timetable:
32 months

Project team

Department manager:
Gerardo Alvira

Site manager:
Joaquim Puiggrós

Foreman:
Tomás Quesada

Events

Events > Marco II building, Mexico

Impulsa, the FCC Construcción subsidiary in Mexico, a reference for modern Mexican architecture



Building Marco II

The FCC subsidiary Impulsa has become a reference for Mexican architecture with the recent building of the Marco II building containing offices, a hotel and a shopping centre, situated in Bosques de Las Lomas, one of the most prestigious areas of Mexico City.

It consists of two 35-storey towers with four levels below ground, joined at the height of 70 metres by a metal bridge and with a shopping centre on the ground floor.

With an area of 60,000 m² and notable for its spectacular architecture that joins the towers at the halfway point, it has natural illumination, floors free of columns, clear spaces between floors and parking for 3,300 vehicles.

The building has been considered as a mile post in modern Mexican architecture.

Impulsa has also started building the Villa Verdant complex, two towers of 17 and 18 floors for luxury housing each with an area of 20,000 m² and with 5,000 m² of common areas.

Work under way

Work under way > Trussed bridge in Saxony

Alpine Mayreder, the Austrian subsidiary of FCC Construcción, builds the first trussed bridge in Saxony

Alpine Bau Deutschland is building a new bridge over the River Elba in Dresden. The project, carried out in a temporary joint venture with Plauen Stahl Technologie, is the first trussed bridge in Saxony. The project's budget is €14 million.

With a total length of 366 m, the new bridge has a span of 192 m over the Elba. A pylon 77 metres high provides anchorage for 36 steel cables that support the deck of this asymmetric trussed bridge. The work is scheduled to finish at the end of 2008.



Work under way on the bridge

Bridge-building know how

The Alpine Mayreder subsidiary in Zöschen (Germany) has recently been adjudicated the building of a bridge on the route of the ICE railway for €50 million. Currently, the same team is working on the renovation of the Kennedy Bridge in Bonn, the building of the Rippachtal bridge on the A 9 and the arched bridge in the Leipziger Südtor network on the A 38.



Computer graphic of the project

Work under way

Work under way > The Seville lock

New lock in the port of Seville

The project, budgeted at over €166 million, includes the designers of the access to the Pacific end of the Panama Canal

Seville has always been connected to the River Guadalquivir and the activity of its port, the only inland port in Spain, connected to the sea by a navigable river, 80 km long. The progressive increase of maritime traffic in the port of Seville has made it necessary to build a new lock to replace the previous, 60 years old one, as well as allowing the navigation canal to be enlarged and improved and the port itself to be remodelled.

The project

The lock is an area enclosed by gates that allows ships to navigate the differing levels between the river and the port. That operation is simple and similar to that of a lift. The ship stops between the gates, the water level is changed, the ship rises or lowers, and finally, with the opening of the gates, the ship exits at the new level. The lock also serves to provide Seville with a defensive wall to prevent flooding in - when high waters occur, the lock is closed to prevent flooding.

The new lock is 434 m long and has a useful width of 35 m, allowing the entry of ships of up to 20,000 tonnes deadweight and 290 metres in length. Its building will allow a considerable increase of short distance sea transport which, in the next few years, could reach 12 million tonnes compared to the current 5 million tonnes.

Prior work involved a geotechnical survey, the preparation of a design for archaeological work as well as a report on the protected fauna and flora and the strict compliance with the environmental monitoring programme.

The building of the new lock in the port of Seville is an advance for the sustainable development of the city itself by providing a new access for the entry of larger ships, thus enhancing the competitiveness of the port installations. These and other actions in the development plan will make the port of Seville into a logistics hub of reference on the Spanish Peninsular.



Most important volumes

4 million m³ of dredging
 1,6 million m³ of excavation
 54.000 m² of plastic screen
 5 million kg of steel in shoring

300,000 m³ of concrete
 20 million kg of corrugated steel
 3.2 million kg of steel in bridges
 2.66 million kg of steel in gates

Work under way

Work under way > Barcelona law courts

Barcelona law courts

Located on the former site of the Lepanto barracks between the municipalities of L'Hospitalet de Llobregat and Barcelona, the design of the Barcelona Law Courts arose from the need to group together the legal organisations in Barcelona that are currently scattered among 16 buildings in various parts of the city.

The building, maintenance and operation of the law courts for 35 years has been adjudicated by the government of Catalonia as a concession to Urbicsa, formed by the FCC in a temporary joint venture with other companies.

The project is led by the British architect David Chipperfield and the b720 architectural studio. It involves an investment of over €321 million to provide an area of 213,054 m² distributed through buildings of various colours, forms and heights, with a maximum of 14 stories. The four buildings that form the Barcelona Law Courts are joined by a large atrium and contain the 130 criminal and civil legal organisations.



Current state of the work

Together with the buildings designed for judicial activities, the complex will include two more, dedicated to complementary uses, basically commercial such as restaurants, chemists and newsagents, etc, and offices for professionals related with the administration of justice such as lawyers, professional associations, etc.

Its geographical location, good communications and the future underground station on line 9 will make the place comfortable, quick and easily accessed.



Computer graphic of the project

RSC

RSC

18th programme of collaboration between the Higher Civil Engineering College in Madrid and FCC Construcción

FCC Construcción will hold a seminar of 10 theoretical sessions for students in the sixth course at the Higher Civil Engineering College in Madrid during the academic year 2007/2008. The seminars will cover the organisation and operation of the company and its policy for corporate social responsibility.

The theoretical sessions will be complemented with technical videos on important projects and their building processes. During the course, visits will be made to some of the company's most representative projects.

FCC Construcción signs a collaboration agreement with the Fundación de la Guardia Civil



Signing the collaboration agreement. On the left, José Mayor, chairman of FCC Construcción; on the right, Joan Mesquida, chairman of the Fundación Guardia Civil

FCC Construcción and the Fundación Guardia Civil signed a collaboration agreement on 27 July to favour the development of activities within the action plan aimed at children of Guardia Civil personnel and approved by the management of the Foundation for 2007.

The Fundación Guardia Civil has a commitment to the future with the men and women of the Guardia Civil, their children, retired members and with society.

Formed in November 2002, it carries out actions designed to complete the social protection of its members through five pillars:

- Social activities.
- Assistance.
- Cultural and sporting activities.
- Attention to families of victims of this institute.
- Strengthening of the institutional image of the Guardia Civil.

Company News

Company News > Infrastructures as an engine of the economy

Infrastructures as an engine of the economy

Great opportunities for Spanish businessmen

Infrastructures as an engine of the economy was the title of a working conference organised by PricewaterhouseCoopers in Valencia on 6 July, in which the chairman of FCC Construcción, José Mayor, took part.

José Mayor based his talk on three main themes, the role of infrastructures in the economy, the risks and opportunities of the infrastructures sector and the market for infrastructures in Eastern Europe.

He referred to the importance of infrastructures for boosting the economy. Better transport (roads, railways, ports and airports), waterworks (dams, canals and stations), power and communications projects (power stations, transport lines) and public buildings (hospitals, law courts, stadiums, museums, etc) allow the public in a country to live better. *Investment in infrastructures is the best possible social spending.*



There are some examples that show how development and infrastructure go hand in hand. The economic policy of the EU contributes to convergence by investment in infrastructures, above all in transport. Between 2000 and 2006, Spain received €42,500 million that have favoured the development of the country. For the next six years, the investment will be centred on an eastern European countries for which €90,000 million will be provided.

Investment in infrastructures has an immediate effect on GDP, the development of which over the last 20 years has been very positive, as well as on the building sector itself. Between 1996 and 2005, building was directly responsible for a quarter of the increase of the GDP and two-fifths of the increase in employment as well as boosting other sectors. In fact, in the same period, building brought about an investment of €0.77 million in other sectors for each million euros in building and generated 0.57 jobs in other sectors for each job created in building.

Over the long term there is a deferred effect in other sectors (agriculture, industry and services). Infrastructures improve communications, increase productivity, provide greater fluidity and speed, reduce transport costs by bringing regions closer together, provide water, power and telecommunications and at the economic level, they facilitate and encourage investment. They improve the quality of life of persons by facilitating mobility and reducing the number of accidents.

In Spain €191,500 million was invested in transport infrastructures in the period 1996 to 2005. Fifty-nine per cent of the investment was in roads, 26 per cent in railways, eight per cent in airports and seven per cent in ports. Between 1996 and 2006, motorways increased from 2,450 km to 11,607 km, high speed railways in operation from 0 to 1,136 km and under construction to 1,735 km and underground railways from 180 to 580 km. Air traffic increased from 50 million passengers to 190 million and sea traffic from 12.5 million passengers 27.5 million goods from 250 million tonnes to 450 million tonnes.

These data showed that infrastructures are the real engine of the economy. When the government encourages the development of infrastructures it boosts the building sector by increasing civil engineering, which is 25 per cent of building production, while at the same time boosting building and other sectors too. Civil engineering has a more influential behaviour on the economy than building because of the variations it causes in it and therefore sets the behaviour of the sector.



The impact of infrastructures on development depends on the availability of the means of production which requires a minimum level of business, suitably prepared workers, accessible technology, possibility of financing, legal security and availability of natural resources. All these factors facilitate the development of infrastructures in a country.

In the second block, José Mayor described the risks and opportunities of the infrastructures sector in Spain, referring to three important risks, the current economic context and the cost of money, the lack of public financing and the negative uncertainty regarding the regulation of the sector.

Investment in infrastructures has reduced due to budgetary discipline and changes in the financing from the EU caused by the entry of countries with lower incomes and the better relative position of Spain. In the period 2000 to 2006, Spain received €48,717 million in EU funds while from 2007 to 2013 it will receive €16,181 million, a reduction of 66.7 per cent in the investment received. In the medium term, Spain will change from being a net receiver to a net contributor as a member of the EU.

Nevertheless, it is important not to lose sight of the opportunities offered by the Spanish market. The diversification of the government departments that promote infrastructures has increased regional and local investment. The central government wishes to maintain the infrastructures budgets to improve the competitiveness of the economy. The development of the state organisations has also allowed investment to increase - AENA and the State Ports are examples that are financially self-sufficient, as is ADIF in the new railway model with greater self-financing.

Although this provision has increased notably, investment is still required in Spain since its level of development is still far from that of the central countries of the EU, through new infrastructures, better and new actions and the maintenance of the existing infrastructures. This requires the collaboration of everybody. Public and private contributions that are compatible with the control of the deficit and public debt allow a wide range of applications such as transport and other public infrastructures.

The investment planned in the PEIT is €248,892 million, the equivalent of €16,500 million per year for 15 years distributed as 43.7 per cent for railways, 25.2 per cent for roads, 9.4% for ports, 6.3 per cent for airports, 13.1 per cent for urban transport and 2.3 per cent for others. The total investment is being fulfilled; there is a delay only in the part for extra-budgetary financing.

It must be remembered that the demand for building exists not only in Spain but also abroad. The infrastructures market in eastern Europe opens up new possibilities for Spanish companies.

Eastern Europe is a wide and varying area in which each country is a market with its own features. This area includes 10 countries that recently entered the EU (Estonia, Latvia, Lithuania, Poland, the Czech Republic, Slovakia, Hungary, Slovenia, Romania and Bulgaria, an area twice the size of Spain covering 1,100,000 km² with a population of 103 million), the Balkans (Croatia, Bosnia, Serbia, Montenegro, Albania and Macedonia, equal to half the size of Spain), the Russian area (Russia, Byelorussia, Ukraine and Moldavia, 17,100,000 km² and 202 million inhabitants) and Turkey (1.5 times the size of Spain).

The Eastern European infrastructures market offers a great potential for public investment. Investment plans have been developed to overcome the deficient transport infrastructures and to develop national and trans-European networks. There is currently a low density of motorways and although the railway density is higher, the system is not electrified. There are also plans to invest in water treatment plants to attain European standards. These investment plans are backed by financial guarantees from the EU: €90,000 million for the next six years.

For the private sector, residential and non-residential building is also an opportunity since there are good macro economic perspectives, forecasts for growth greater than the European average and increasing economic stability in these countries. As domestic wealth increases, it will increase the possibilities for enlarging and renovating housing, thus opening the doors to the arrival of Spanish builders.

The main risks that building companies must face come from almost the capacity of governments not only to generate projects but also to manage them, from the features of the building market in each country with regard to foreign competition, the degree of maturity of the building sector, the availability of means of production, safety at work, quality and the environment.

Spanish companies can look on this new market as a challenge since they are very consolidated thanks to the prolonged expansion cycle of the last few years, their internationally recognised technical capacity, the maintained generation of resources in a stable environment, the know-how in public and private contributions, the strategies for geographical and product diversification and the image of prestige and solidity of the building sector.

The greatest weakness is the lack of experience in internationalisation, which is overcome by going abroad. *Businessman should not be slack when it comes to moving in Europe for a better perspective of these countries and for more direct contact with them.*

FCC Construcción has already taken this step through the acquisition of Alpine, market leader in Austrian building, present in 26 countries and with wide experience in expanding its activities, acquisition and integration in other countries.

Given this wide range of opportunities, it remains only for the private sector to show its capacity for response.

Company News

Company News > Malaga Park round table

Round table for the work to renovate the Malaga Park



Malaga Park

The Malaga Civil Engineering College organised a round table on the Malaga Park, its design and building, in its headquarters on 5 July.

The conference included contributions from Pau Soler, architect, Julio García-Villanova, civil engineer and Héctor Santos, public works technical engineering from FCC Construcción.

Hector Santos, who was the project manager, described its planning and undertaking.



The work of renovating the Malaga Park, undertaken by FCC Construcción, was inaugurated on 31 March by the Mayor of Malaga, Francisco de la Torre, and involved the renovation and restoration of the city's botanical, historical and artistic heritage in the park.

Company News

Company News > La Caja Mágica, Madrid

The Caja Mágica visited by Gallardón



FCC has already completed 25% of the project

The International Tennis Centre, better known as the Caja Mágica (“Magic Box”) was visited by the Mayor of Madrid, Alberto Ruiz Gallardón, the Chairman of Madrid Espacios y Congresos, Luis Blázquez and the project’s architect, Dominique Perrault on, 22 August. Also present were Rafael Montes, Managing Director of FCC group and José Mayor Oreja, Chairman of FCC Construcción.

The Magic Box is one of the large projects being built in Madrid, notable for its spectacular nature, its multi-functional sports capability and its nature as a key element in the development of the San Fermín district.

The main building, with 82,520 m², has three courts, the central one which seats 12,000, the Ópera seating 3,194 and the Circo seating 2,730. All three courts are equipped with opening roofs to leave the playing area in the open air. The largest roof is 103 metres long by 73 wide. The complex also includes the indoor tennis building with 11 indoor courts, the high performance rooms, the tennis school with gymnasium, restaurants and administrative offices, the Media Garden, a lakeside garden and the Tennis Garden, an island with 16 tennis courts, two of which are lawn, two have fast surfaces and twelve are of clay.

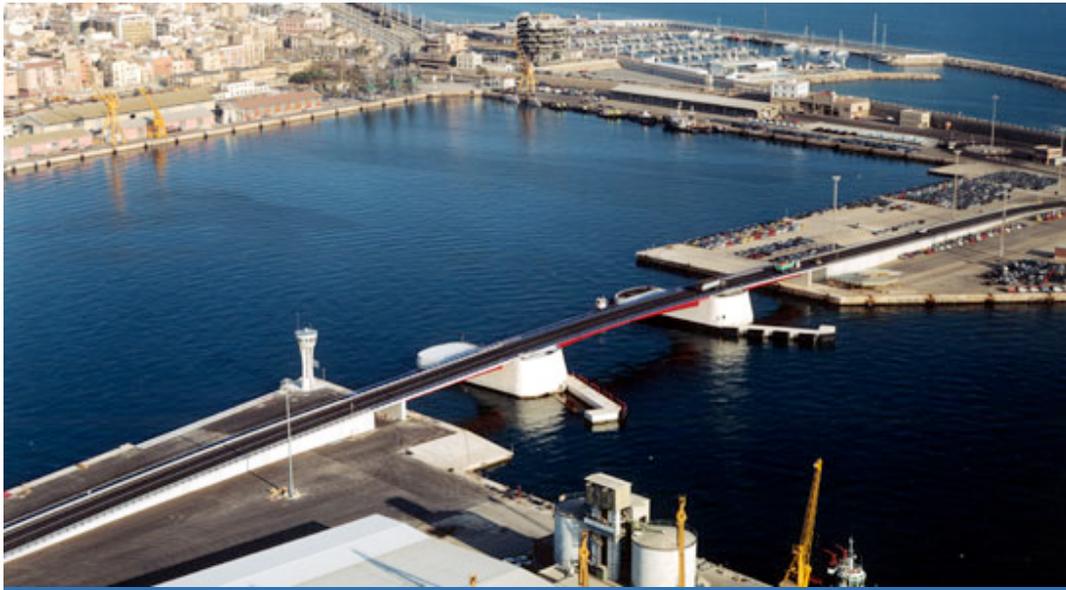
This project, already 25% completed, is being developed by teams from the FCC Construcción Madrid Building I and III branches and is being prepared for the tennis masters in 2008. The work will be finished by 2 October 2009 when the International Olympic Committee will announce in Copenhagen the site for the 2016 Olympic Games.

Contributions

Contributions > Marine and river infrastructures

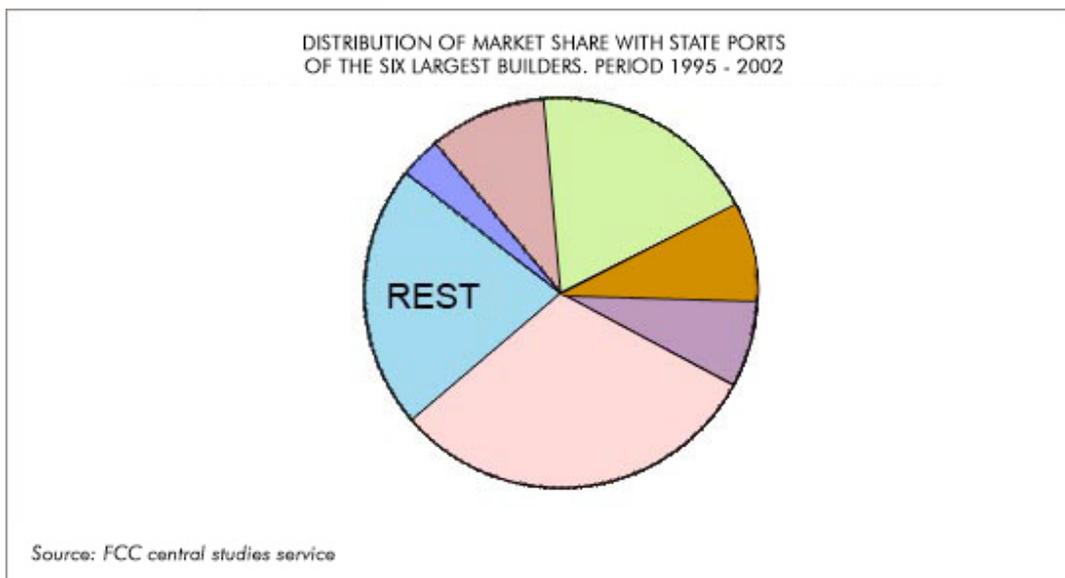
Marine and river infrastructures

The port infrastructures market has traditionally confided in large companies which have historically been their main protagonists for their continued interest in business development accompanied by important investments in specific means and because they were the first to enter this sector.



Tarragona Marina

This situation is understandable in a market that requires the investment of important financial resources (intensive capital) to acquire machinery and to develop the undertaking processes, only within the reach of large companies.



Unlike other types of projects such as roads or waterworks, the availability of means has always been essential to carry out and guarantee the undertakings acquired and to ensure compliance with the contractual timetables. Logically, port authorities (the main clients) have historically given great importance to this aspect in the tender documents.

The companies have traditionally been differentiated not only through their own means. The knowledge of engineering and the possession of know-how have been the great conditions for entering the select club of specialised companies.

There are also other factors typical of the marine infrastructures sector:

Learning curve or experience

Generally, as a company accumulates experience in a specific sector, its costs are reduced. This is because of the continuous improvement in the production processes, in the output of the equipment involved and other aspects connected with the human factor.

Companies with a long marine tradition possess not only the specific resources of specialised machinery and personnel but also, because of their wide experience, their production costs are especially low compared to those of other competing companies that have recently entered the sector or wish to do so.

Economies of scale

Economies of scale refer to the reduction of unit costs for a product when its production volume increases.

The high market shares of some traditional companies in the sector and the almost continuous production of key work units such as dredging, forming stone filling banks (infrastructure foundations), levellings, manufacturing floating caissons, building with underwater concrete, for example, give them a strong competitive advantage.

Availability of materials from quarries

The strategy of building companies in the marine field must match the strategies of quarry management - the traditional saying that "a port is the port and its quarry" is well known.

The development of investments in operating quarries relatively near to ports has sometimes provided competitive advantages in direct costs.

Negotiating power of clients and suppliers

Public clients, the main investors in infrastructures, and some suppliers, can compress the profitability of the sector itself. The former through a system of contracting that leaves no possibility for negotiating new clauses or additional conditions and suppliers, in a market of very specialised resources, can exert certain negotiating pressure on companies, incorporating over costs that cannot be recovered in the prices contracted with the main client.



Osa dock, Gijón

Business concentration

This is a global phenomenon that has greatly influenced the development of the marine infrastructures sector in our country.

In recent years, despite the increase of public investments in port works and the growth of this market (as described below), the traditional companies have been concentrated and except for some that have accessed this market by acquiring a specialised organisation, there have been no significant incorporations into this club.

The phenomenon of the Internet, delocalisation and globalisation have decisively influenced the spectacular growth of markets and modes for transporting goods and, very specially, in marine transport. As a reference data, the average annual growth of goods traffic in containers since the 1980s has been unstoppable, about nine per cent. The first consequence of all this "revolution" is increased traffic on the great inter-ocean routes. At the level of the European Union, the White Book of European Transport has been created that includes the concept of "sea motorways" and the ports involved in them will become key points in the intermodal transport system. Thus marine and river transport are becoming the two key elements in intermodal transport, responding to the increasing and problematic congestion of roads..

The shipping centre, the keystone in this value chain, has reacted to this growing demand with the logical technological development of building larger container ships (with, therefore, greater draught) building gigantic container ships exceeding 10,000 TEUs (Twenty Equivalent Units, 20 ft long container units).

Remember that the first ships that broke the 7,000 TEU barrier arrived in 2001. By the summer of 2003, 40 container ships of over 7,000 TEU capacity were already operating and during last year 27 new 8,000 TEU container ships came into service. This qualitative leap in ship size has a special effect on the design and building of new infrastructures in order to give the necessary service to the main client of the ports, the ship-owners.

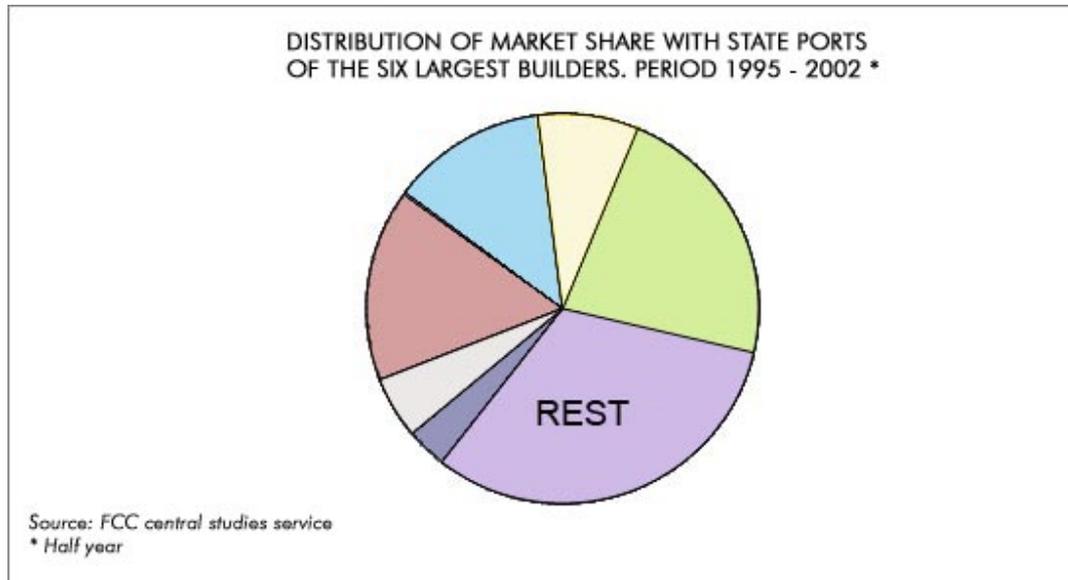
With some 8,000 km of coast, a port system consisting of 28 port authorities managing 50 general interest ports under the control and monitoring of the government public ports authority and with a more than excellent geographical location, given the proximity of an important part of the main shipping routes, our country has become a strategic area in international marine transport and as the logistics platform for the south of Europe.

Since 2002, almost all of the port authorities have made very important investments in infrastructures, some of which are being built while others, with very high budgets, are awaiting tenders.

This increased investment is due not only to public efforts - the private sector for its part, aware of the great changes that are occurring, has taken part actively in this investment process. At the date of writing this article, investments planned by State Ports for 2006 and 2007 were €1,115,674 thousand.p>

It must be asked how this expansion of the ports sector has affected the competitiveness of the main national building companies over recent years.

The graphic below gives some idea (given that the only indices available are those of penetration with the State Ports client) of this development from 2003 to date.



Comparing this situation with that described at the start of this article, it can be seen that the number of groups has remained constant (during the period there was business concentration and only one new group entered the sector) although the six main building groups in the country have lost share despite being those who have invested most in its development.

FCC occupies a privileged position in the sector as a result of, among other actions, a rigorous policy of acquiring means. Since it finished building the "Mar del Teide" floating dock in 1992 in the Cartagena shipyard (capable of building caissons up to 33.75 m long, 19.60 m wide and 22.60 m deep), our company, with 100 years' experience in marine work, strengthened its presence in this market. At the start of 1998 it acquired the barge "Bocami" with a capacity of 450 m³. In 2002 it acquired a second floating dock, the "Mar del Aneto" (capable of building floating caissons up to 46 m long, 25 m wide and 29 m deep) and in November of this year it acquired a second barge, "Acanto" with a capacity of 800 m³.

FCC has maintained a sustained policy of R&D. Between July 2003 and January 2005, it carried out the project "Analysis of solutions for low reflection caissons in outer piers and docks" in collaboration with CEDEX. This technology allowed FCC to win the contract for the dock in the port of Granadilla last January, for the Santa Cruz de Tenerife Port Authority, a contract valued at €114.6 M.



Also worthy of mention is the work by FCC in a temporary joint venture with Dragados and minority shareholdings by two French and one Monaco companies for the enlargement of the La Condamine port in Monaco, a project better known as the Monaco floating dock. As well as solving the mooring problems of large cruise liners and notably improving the port's protection against waves, this project was a world-wide milestone with regard to its concept (it was built in the Crinavis dry dock in Algeciras Bay and towed to its final location in the port of Monaco).

The technologies used during its building are notable: the intensive use of techniques for pre-stressing a large concrete caisson 352 m long which has direct application of off-shore technology.

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