









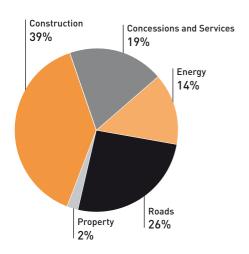
**2005** Annual Report



The men and women at **VINCI Construction**, heirs to great builders, are helping to enhance the world's living environment and develop its infrastructure. VINCI Construction, a strategic division of VINCI, has set its sights on being its customers' and partners' most valued and respected builder and on involving its 49,000 employees in its growth momentum.

VINCI Construction is one of the four core business divisions of the VINCI Group, integrated world leader in concessions and construction since the acquisition of Autoroutes du Sud de la France. VINCI has 142,000 employees in 80 countries and generated revenue of €24 billion\* in 2005.

## Revenue breakdown by business line\*



<sup>\* 2005</sup> figures following the integration of ASF.

# VINCI CONSTRUCTION 2005 Annual Report



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# Management team



Richard Francioli

Chairman of VINCI Construction

Philippe Ratynski was Chairman of VINCI Construction until 1 December 2005.









TOP TO BOTTOM, LEFT TO RIGHT

## Jean Rossi

Chairman of Sogea Construction

#### Robert Hosselet

Chairman of GTM

## Sébastien Morant

Chairman of VINCI Construction Filiales Internationales

## John Stanion

Chairman of VINCI PLC

## Renaud Bentegeat

Managing Director of Compagnie d'Entreprises CFE

## Pierre Berger

Chairman of VINCI Construction Grands Projets

## **Bruno Dupety**

Chairman of Freyssinet

## Raoul Dessaigne

Director

## Jean-Marc Fonteyne

Human Resources Director of VINCI Construction

## François Ravery

Chief Administrative and Financial Officer of VINCI Construction

# Message from the Chairman

"Our economic goals tie in with our responsible approach to our customers, our employees and the community

at large."

# Our growth trajectory

Year after year, VINCI Construction continues on its growth trajectory, supported by clearly stated fundamentals: a strategy known to all, expertise covering the full range of construction business lines, a management system that fosters creativity in individuals and responsiveness in organisations, strong values that give our culturally diverse teams a shared passion for building and a common entrepreneurial drive.

Our performance in 2005 is a further demonstration of the consistency and vitality of this model. The past year again ended with results at historic highs and with our revenue and operating profit increasing even more than in 2004. The improvement applied to virtually all our companies. Most of them outperformed their markets. The volume and quality of our order backlog, which amounted to 13 months of activity at the end of 2005, is a harbinger of further growth of our business and our performance in 2006.

VINCI Construction will continue to expand mainly as a result of organic growth; there will be some targeted acquisitions aimed primarily at further expanding our network of locations and consolidating our positions on all our markets. The growth will be driven by the acceleration of public

transport, health and education infrastructure programmes in Europe. Technical and marketing synergies with VINCI Concessions also hold out promising prospects for growth. Our efforts to improve productivity, which drive our development, continue unabated.

Our economic goals tie in with our responsible approach to our customers, our employees and the community at large. As a major player in quality of life and regional development, VINCI Construction aims to set an example in the conduct of its business. As an employer of 49,000 people worldwide, our group does its utmost to ensure their safety at the workplace and offer them a human resources policy that makes the most of their talents and motivates them.

In this way our group generates business activity and wealth, creates jobs and improves the living environment as it goes forward.

Richard Francioli

Chairman of VINCI Construction

Revenue (in € millions)

9,399

Net cash (in € millions)

1,611

The key figures given above are contributions to VINCI consolidated revenue. They include those of VINCI's German subsidiaries VINCI Construction OHG and G+H Bautec.

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As market leader in France and a world major in construction, VINCI Construction brings together an unrivalled range of competencies in building, civil engineering, hydraulic engineering and services. The variety and quality of the expertise applied by its exceptionally close-knit network enable the group to achieve optimum coverage of its markets. VINCI Construction's business activity is structured in three major segments, which complement each other:

- Mainland France, with two independent networks engaged in multiple business lines (Sogea Construction and GTM Construction), which have a large number of subsidiaries and agencies rooted in their local markets;
- and agencies rooted in their local markets;
   Local markets outside mainland France, covered by a network of subsidiaries operating in the full range of construction business lines in their geographic zones:
  VINCI PLC in the United Kingdom; CFE (in which VINCI Construction holds a 45% interest) in Belgium; and VINCI Construction Filiales Internationales in Germany, Central Europe, the French overseas territories and Africa;
- Activities carried out on the world market such as major engineering structures covered by VINCI Construction Grands Projets, specialised high technical content civil engineering covered by Freyssinet and dredging, covered by DEME (in which CFE holds a 50% stake). VINCI Construction has a management system combining decentralised organisation, individual supervisory staff empowerment, a profit culture and networking. This model, together with a consistent strategy of selective order taking and added value enhancement, has enabled VINCI Construction to steadily increase its results since it was founded in 2000 and has contributed to making it the worldwide benchmark in its sector.



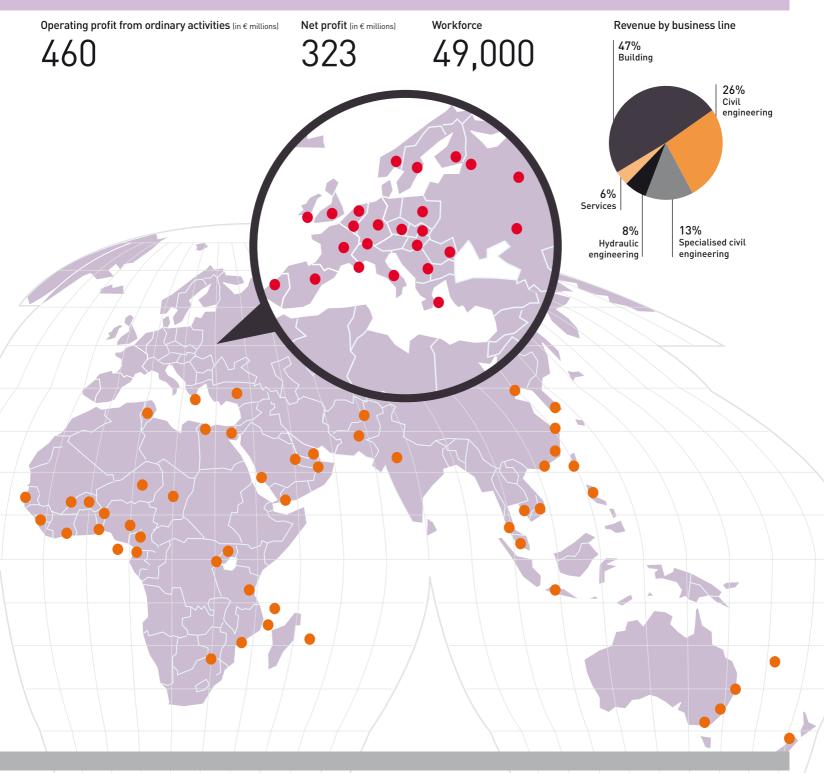
## SOGEA CONSTRUCTION

Sogea Barriguand Bateg **Botte Fondations Bourdarios** Campenon Bernard Cardaillac Caroni Construction CBC Deschiron Dodin **FMCC** Heulin Manei Sicra Maintenance Sobea Environnement

Sogea TPI VINCI Environnement VINCI Networks

## GTM CONSTRUCTION

France
GTM
Chantiers Modernes
Dumez
Coca
Petit
Socra
Pitance
Fargeot
Travaux du Midi
TMSO
CMA
TPC
Delair-Navarra



## VINCI CONSTRUCTION **FILIALES INTERNATIONALES**

Europe, North and South America,

Sogea-Satom Warbud FCC SMP Construction Hídépítö

Inter-Most Novkol

**SBTPC** 

Sogea Réunion Sogea Mayotte Sogea Martinique SIMP

Dodin Guadeloupe Cogit

Sogea Guyane

Nofrayane Dumez-GTM Calédonie G+H Bautec

#### **VINCI PLC**

United Kingdom Norwest Holst Construction Conren Crispin & Borst John Jones Excavation Rosser & Russell Simplex Foundations McGill Services VINCI Investments

## COMPAGNIE D'ENTREPRISES CFE

Europe ABEB Bageci BPC **CFE Brabant CFE Nederland** CFE Hungary CFE Polska CLE MBG BPI

CFE Immo Construction Management Sogesmaint Engema

Nizet Vanderhoydoncks DEME

## VINCI CONSTRUCTION **GRANDS PROJETS**

Europe, North and South America, Africa, Asia

Socaso Hydroplus Janin Atlas WMI Fluidis

## **FREYSSINET**

Europe, North and South America, Africa, Asia

Freyssinet Terre Armée Ménard Soltraitement **Economic Performance.** In 2005 VINCI Construction substantially outperformed the market in virtually all the sectors in which it operates. The outlook for 2006 is excellent, with the order backlog standing at a record €10 billion at the end of 2005.



#### France

Activity increased by 14.1% in 2005 [12.5% like-with-like] on a market that was up moderately (+3.2%; source: DAEI), helping to strengthen VINCI Construction's position as leader in its historic markets. The increase was 8% for GTM Construction and 17% for Sogea Construction. Making the most of their strong geographic roots and the diversity of their expertise, which enable them to cover all market segments, the two French networks recorded particularly strong growth in the French regions in which the economy and the population are expanding fastest – the South East and the greater Paris area in particular.

Revenue growth in France was boosted by the contribution from the business conducted on that market by VINCI Construction Grands Projets, Freyssinet and DEME.

## Western Europe

In the United Kingdom VINCI PLC's business activity rose 27% to €956 million, driven in particular by the resumption of building contracts placed by the Jarvis Company. Selected or prequalified for major national infrastructure programmes in the health care, education, safety, transport and energy infrastructure sectors, VINCI PLC offers the full range of competencies, from project structuring to facilities management, that are needed to take advantage of the public private partnerships coming into more and more widespread use.

In Germany, VINCI Construction subsidiaries generated revenue of €443 million. SKE, specialising in facilities management, renewed its multi-year contracts with the American Armed Forces in Germany, its longstanding customer, and continued to diversify in the educational sector, signing a major new contract. G+H Bautec maintained its level of activity on the difficult fittings and finishings market.

In Belgium, the business activity of CFE (excl. dredging) grew by 4% to €567 million. Despite a difficult competitive environment, the margin continued to improve, with property development and multi-technical activities contributing more than the construction sector. The holding in the Van Wellen company was raised from 50% to 100%, accelerating CFE's diversification on the road construction market in Flanders.

#### Central Europe

As one of the major international groups operating in Central Europe, VINCI Construction recorded revenue growth of 36% in that region. In line with previous years, the performance of its subsidiaries showed the wisdom of its strategy of combining strong local roots with the Group's development model. Business activity increased sharply in the Czech Republic and in Slovakia (+52% to €125 million, on a market that grew by 5.5%), where SMP consolidated its leadership on the major engineering structure market while continuing to diversify in the hydraulic engineering markets. Growth was also spectacular in Hungary (+74% to €239 million on a market that increased 4.4%), where Hidépítö is a major player in the ambitious road infrastructure programme now under way. In Poland, Warbud concentrated on improving its margins and deliberately held its revenue stable.

In Serbia-Montenegro, new contracts for hydraulic engineering work boosted the development of locations (Novkol, Inter-Most) recently acquired by the Group.

## Africa

Leveraging its historic roots and its leading positions in some 20 African countries, Sogea-Satom recorded strong growth in its business activity (+26%, to €355 million). Sogea-Satom opened – or reopened – new locations in the Democratic Republic of Congo, Uganda and Kenya, obtaining a number of hydraulic and road engineering contracts in these countries. In the same activities, major contracts were won in Chad, generating significant growth in revenue in that country (from €29 to 67 million). On all the markets where it operates, historic and recent, Sogea-Satom's diverse range of business lines roads, earthworks, hydraulic engineering, civil engineering and building – enables it to offset cyclical swings in international funding policies.

## French Overseas Territories

Making full use of its close-knit network, VINCI Construction recorded a further marked increase in revenue in the French Overseas Territories (+16%, to €366 million). The trend was observed in all territories (French West Indies, French Guiana, Reunion Island, New Caledonia), where local subsidiaries cover local markets in all construction business lines while simultaneously taking part in a large number of major projects (transport and energy infrastructure, industrial facilities) in synergy with other VINCI Construction entities.



## Major projects

On the world market for major civil engineering and building structures, VINCI Construction Grands Projets returned to growth in 2005 following the 2004 contraction (+11% to €606 million). The company's order backlog stood at €1,445 million, equivalent to 29 months of activity, at the end of the year. Following completion of several major projects, a large number of new projects were launched in 2005, and the list was lengthened in early 2006 with the addition of the contracts for the Algiers and Budapest metro systems (the latter with Hidépítő). On the various major transport infrastructure markets, synergies were developed with VINCI Concessions, providing a further avenue for growth in the context of developing public private partnerships.

## Specialised civil engineering

Freyssinet, which is ahead of schedule in its profitability improvement plan, generated operating profit from ordinary activities of 6%, with consolidated revenue continuing to climb (+11%, to €508 million). The acquisition of the Mécatiss Company, previously a subsidiary of VINCI Energies, helped reinforce Freyssinet in the nuclear sector. In its two families of business lines (structures and soils), the outlook is good on a market driven by existing infrastructure refurbishment (especially in Western Europe) and new infrastructure construction (Central Europe, Spain, Mexico, Asia. Australia, United States, Middle East, Africa).

## Dredging

DEME, a subsidiary of CFE, continued its expansion on a buoyant market, taking part in one of the world's largest dredging projects currently under way, in Qatar. The acquisition of a megacutter – a ship able to dredge rock – and recent orders for large-capacity dredgers set the stage for a significant increase in revenue.

A responsible group. Reflecting its position as the employer of 49,000 people worldwide and of its infrastructure construction and of urban space development activities, VINCI Construction is closely involved in sustainable development issues. Its ambition is to combine its economic model with a humanist approach to its social responsibility and with an approach to construction that limits the impact of its activities on the environment.



## Safety

The "zero accident" goal. VINCI Construction has set for itself the goal of achieving the "zero accident" goal. Safety is a constant focus. Action plans have been initiated across all VINCI Construction business lines and companies. They take a variety of forms, depending on the context: appointment of safety correspondents; organisation of safety quarter hours on worksites; inter-company safety challenge competitions; orientation procedures on worksites; risk evaluation programmes; publication of statistics, etc. These efforts resulted in a 7% decline in the accident frequency rate and a 17% decline in the accident severity rate in one year across all companies. Major initiatives included an in-house campaign aimed at raising awareness among employees of the risks associated with alcohol and drug use. The programme has been tested on pilot projects and is now being extended to the Group as a whole.

## Human resources

Attracting talent and offering qualification training programmes. In 2005, VINCI Construction hired 11,413 people under longterm contracts worldwide. Group companies are stepping up their outreach to young people and future employees, establishing partnerships with engineering schools, taking part in school forums, sponsoring graduating classes, etc. They are also designing qualification training for young people and job-seekers to enable them to acquire construction skills. For example, Sogea Construction was recognised by the French Senate in the second annual Trophées de l'Insertion awards (winning the prize for excellence in the "companies" category) for its Jobs Passport programme, carried out in partnership with the French ANPE and Afpa employment offices, under which young people are hired under work/study programmes.



In 2005, VINCI Construction hired 11,413 people under long-term contracts worldwide. Group companies are introducing a variety of measures to support and optimise induction of these new employees.

# Combining motivation and safety

In Belgium, CFE has substantially improved its safety results. The company organised a "works forum" bringing together all its directors, managers, technicians and foremen. The discussion prompted a series of actions: introduction of a risk analysis programme; establishment of non-negotiable rules; orientation on worksites; sanctions and incentives. The impact of the safety results on the remuneration of profit centre managers can thus account for up to 20% of their bonus. With the same goal of empowering people, a company agreement covering all worksite personnel converts the former seniority bonus into a bonus pegged to individual safety results.

# Inducting new employees and offering them career programmes.

VINCI Construction companies are taking a variety of steps to support and optimise induction of new employees in the company: GTM Manager (eight sessions designed for engineers and managers have already been held) and Master Builder programmes at GTM Construction; Coaching Team programme at Sogea (60 engineers enrolled in 2005); recruitment and training programme for African management staff at Sogea-Satom; young manager induction seminars at VINCI Construction Grands Projets, etc. The Group also encourages in-house mobility, especially in the framework of company twinning operations, which make it possible to exchange employees and transfer skills between French and international teams. In June 2005, the charter signed by the GTM Construction's South Division and the VINCI Construction Filiales Internationales Indian Ocean regional divisions brought the number of twinning operations within the Group to five.







# Conserving the parsley frog's habitat

In preparing the Mont Saint Michel sand removal project, GTM Terrassement carried out the work needed to protect an endangered species – the parsley frog. This small frog lived at the site of a new water retention basin (which will be emptied at each ebb tide to drive sediments offshore, helping to remove sand from the bay). A new habitat, made up of some twelve freshwater ponds, was created in the vicinity.





Events such as the Coulisses du Bâtiment behind-the-scenes tour gives young people still in school a chance to learn about VINCI Construction's business lines and projects.

Hiring and promotion of people of immigrant origin is a focus of VINCI Construction's equal opportunities policy.

➡ Developing skills. In 2005, 33,000 hours of training were given to 1,700 trainees at the GTM Construction Centre des Savoirs et des Métiers training centre and 68,000 hours were provided to 2,500 trainees by Sogeform, Sogea's integrated training institute.

The group's companies are also developing training programmes in partnership with specialised organisations. In France, Sogea Construction will be providing technical training for several classes as part of the new "public works" and "pipeline" vocational high-school diplomas. GTM Construction has signed a partnership with the French National Education system to welcome teachers at its training centres. Because VINCI Construction companies operate as a network, common training tools can be developed. One such tool is the Digital Skills Database, developed initially by Sogea Construction and now being extended to the other subsidiaries.

#### Equal opportunities

Keeping pace with society diversity. Equal opportunities are a major focus of VINCI Construction's social responsibility policy. The goal is to combine the company's humanist vision with its economic project, and to operate in a fully responsible manner, in line with the expectations of the societies that make up its environment and the diversity of the men and women that are part of them. Several working groups were set up in 2005 to focus on priority issues identified across the VINCI Group as a whole: gender equality; ethnic and cultural diversity in hiring and promotion; retaining and hiring the disabled; and career management for seniors. Their work resulted in the drafting of a reference document, which serves as the basis for initiatives to be taken within the Group. Initiatives were also taken at company level. Examples are the diversity charter signed by CFE in Belgium and the equal opportunities training introduced for supervisory staff at VINCI PLC in the United Kingdom (82 managers enrolled in 2005).

Acting to help people in difficulty enter the workforce. Within the VINCI Foundation. VINCI Construction employees work with organisations fighting social exclusion (employer groups working to provide jobs and qualification, neighbourhood associations, job-creation companies, civic organisations, etc.). In 2005, the VINCI Foundation supported 82 projects creating bridges between the world of work and the world of associations. The Foundation combines financial support (€16,000 per project on average) and skills sponsorship: each project is sponsored and overseen by a Group employee who contributes his or her competencies and network of contacts. In three years of activity, the support of the Foundation and the involvement of VINCI employees have enabled 150 people to find a training course or a job within VINCI Group companies and provided some 50 jobcreation companies with sales outlets. Alongside the collective work done by the Foundation, solidarity initiatives are being taken by individual companies. For example, in French Guiana VINCI Construction Filiales Internationales is helping to refurbish a health centre for the charity Médecins du Monde.



## **Environment**

Promoting ecological efficiency in buildings. VINCI Construction's environment programme is based on a global approach to the life cycle of a structure and the impact of the built environment on the natural environment. Group companies are particularly active in offering and implementing High Environmental Performance buildings and they have a solid High Environmental Quality track record; they work with French and European public authorities to promote this type of programme, which aims at improving the environmental efficiency of buildings.

Developing environmental certification. VINCI Construction companies continued their environmental certification programmes in 2005, while developing the corresponding management systems. By the end of 2005, 54.7% of GTM Construction's revenue, 18% of Sogea Construction's revenue and 100% of VINCI Construction Grands Proiets' revenue had been certified ISO 14001. In the last division, the management system applied to the entire

activity includes annual reviews in which the Operational Environmental Performance index, based on environmental protection measures taken on worksites, is calculated.

Reducing energy consumption.

Among other initiatives taken to limit worksite energy consumption, GTM Construction has worked with ADEME (the French environment and energy agency) to develop a new type of worksite hut, the Green Home, which was tested in 2005. The issue is important because the heating and cooling of 3,000 huts at the company's worksites account for 60% of the company's worksite power consumption and generate the equivalent of an estimated 5,300 tonnes of greenhouse gases annually. A BAS (building automation system) combined with better thermal insulation (thermal bridge reduction) saves between 3,000 and 4,000 kWh/year per hut, while increasing comfort and working conditions. VINCI Construction's environment policy is also aimed at reducing CO2 emissions from its vehicle and machinery fleet. Action is being taken to raise awareness among purchasing staff as part of the VINCI Group's

purchasing policy. Initiatives are also being taken by companies. In Africa, Sogea-Satom continued its voluntary five-year vehicle and worksite machinery renewal policy and achieved its 2005 objective of 45% vehicles in compliance with European fuel consumption standards. In France, GTM Construction has worked with the CNES national space research centre to look into the use of GPS guidance systems to optimise operation of earthmoving machinery on worksites and thus reduce fuel consumption.

Protecting the natural environment.

VINCI Construction companies rehabilitate the quarries used by their worksites when operations are completed. They also make their expertise available to seek solutions for conserving the environment. GTM Terrassement, for example, rehabilitated the Manosque landfill in southeastern France by using coal slate from a nearby slag heap to cover it, followed by a layer of compost in lieu of topsoil to replant the site. A green waste and purification sludge composting facility was built at the site for this purpose.

→ Optimising waste management. VINCI Construction continued to expand selective sorting in 2005. Given the volumes involved, Group companies are devising ways to reduce waste generation at source and optimise waste sorting, traceability and recycling. In the greater Paris area, for example, Sogea Construction, GTM Construction and Freyssinet worked in synergy with VINCI's Roads and Energy divisions to launch a pilot project aimed at establishing a common worksite waste management system. The deployment of a programme and common tools (pre-sorting equipment on worksites. specifications harmonising treatment procedures, framework agreements with suppliers, etc.) aims to reduce the costs of waste management while improving waste traceability and the waste recycling rate. This initiative, which won the Special Synergies Prize in the VINCI 2005 Innovation Awards, will be audited and formalised and then applied in other regions.

## Innovation

Contributing to progress in research.

VINCI Construction is involved in a number

of collective research projects, such as the ECTP (European Construction Technology Platform) and ENCORD (European Network of Construction Companies for Research and Development) programmes. VINCI Construction Grands Projets is participating until 2007 in the European Lessloss programme aimed at risk mitigation for earthquakes and landslides and is also carrying out research on untimely cracking of reinforced concrete and accelerated aging of concrete in sulphate and marine environments, in partnership with the Laboratoire Matériaux et Durabilité des Constructions (LMDC) laboratory in Toulouse. GTM Construction has completed the European PICADA programme devoted to new photocatalytic pollution removal processes for urban facades. VINCI Construction companies are also pursuing their own innovations. Recent developments include the new tilting fusegates for dams designed by Hydroplus; improved fire-resistant polypropylene fibre reinforced concrete developed by VINCI





1 and 2

VINCI Construction companies offer proven High Environmental Quality expertise. 2005 HQE® projects included the Blanquefort high school in the greater Bordeaux area, where GTM GCS Sud-Ouest is using such special materials as the monomur brick, which offers an excellent thermal coefficient; the Granite Tower building in Paris La Défense, where the HQE® programme focuses on air quality, humidity, energy management and visual amenity.

Construction Grands Projets and employed for the first time in France on the cutand-cover trench operation at the Angers northern motorway bypass worksite; and the earthquake protection system for – cable stay anchors and the Cohestrand cable developed by Freyssinet (see box).

Substantial participation in the VINCI Innovation Awards. VINCI Construction's innovative momentum was much in evidence in its companies' entries in the VINCI 2005 Innovation Awards, a competition open to all VINCI Group employees aimed at making the most of their creative potential in all areas. VINCI Construction companies won six of the twelve final awards.

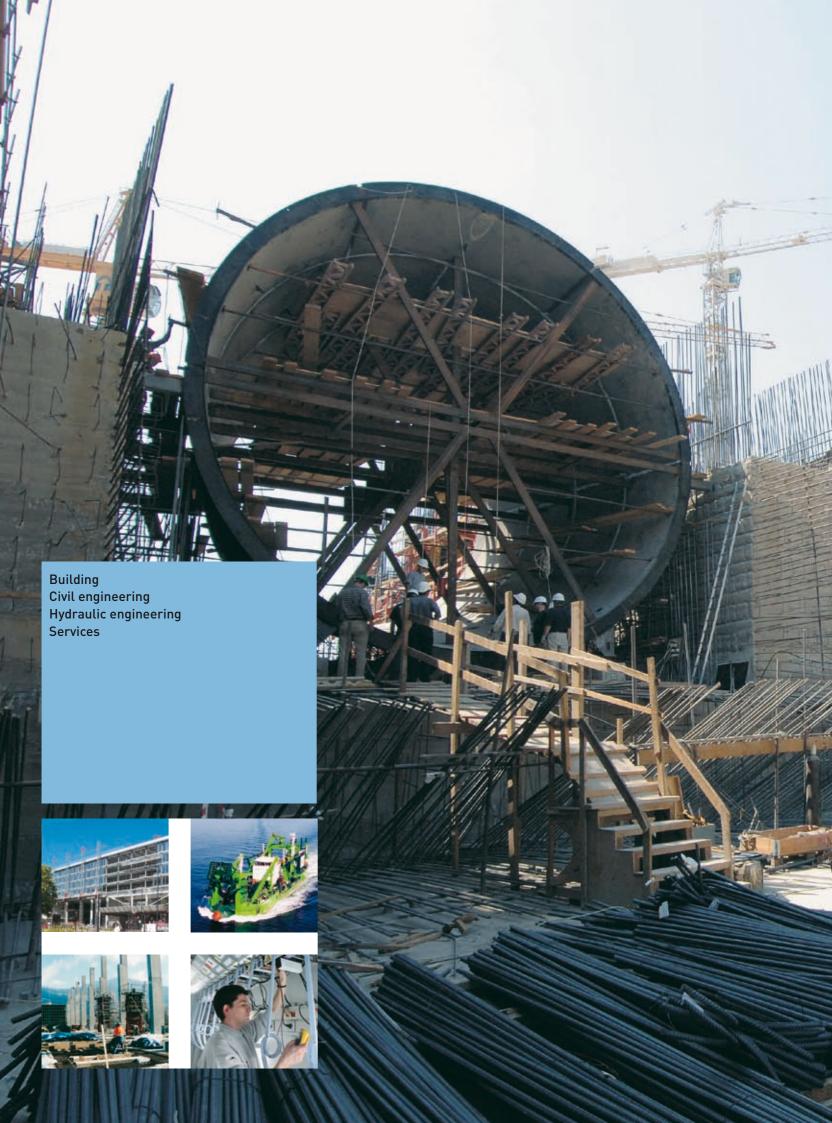
- Grand Prize. Cohestrand suspension bridge cable Freyssinet (see box).
- MATERIALS. A superior overpass: a highperformance fibre-reinforced concrete reinvents the prefabricated segment – Campenon Bernard Régions (Sogea)/ VINCI Construction Grands Projets.
- PROCESSES AND TECHNIQUES. Floating viaduct foundation on the Monestier viaduct: a solution for building structures on loose ground GTM Génie Civil et Services.
- EQUIPMENT AND Tools. A lubricating system that protects the environment and improves working conditions Campenon Bernard Régions (Sogea).
- SPECIAL SYNERGIES PRIZE. Global worksite waste management: group synergies to improve waste management VINCI Construction /Eurovia/VINCI Energies.
- Special Skilled Worker Prize. Picvert, a hook that can be fitted on a pickaxe to avoid accidents when removing cast-iron manhole covers EBM (GTM Construction).







- VINCI 2005 Innovation Awards (Special Skilled worker Prize): the Picvert is a hook than can be fitted to a pickaxe to avoid accidents when opening cast-iron manhole covers.
- Another VINCI 2005 Innovation award (Materials category) went to the road bridge made of prefabricated ultra-highperformance fibre-reinforced concrete (UHPFRC) segments, which saves weight and speeds construction.





# **Building**

Civil engineering
Hydraulic engineering
Services



#### Office buildings

The office building and functional building construction and renovation business line underwent spectacular growth in France (+50%). Major projects completed and under way include Sogea's renovation of the OECD headquarters in Paris and construction of the Casino Group's headquarters building in Saint Etienne: and GTM's handover of two further instalments of the Le Palatin complex in La Défense and construction of a four-building luxury office and retail complex (see box) in central Paris. Sogea and GTM are also working in a consortium to build the last major tower on the La Défense esplanade - the Granite Tower building, for which VINCI Construction is co-developer alongside Nexity. In 2005, work on this very important project was focused primarily on the 90,000 cu. metre excavation and on the monumental foundation on which the building will rest. The construction of its 36 storeys got under way in March 2006.

Orders for the year included GTM projects for Capital Continental in La Défense (€25 million), Cogedim in Colombes (€27 million) and SEDP in Saint Denis (€28 million). Group companies are also working in a large number of projects that combine office, residential and retail space, such as the "Espace Nayel" in Lorient (€21 million for works) and the large-scale development at the former Renault site in Boulogne, for which Sogea received orders worth €35 million during the year.

In Luxembourg, VINCI Construction Grands Projets and CFE have formed a consortium to build a new 72,000 sq. metre building for the European Investment Bank under a major €138 million contract (see box). Elsewhere, CFE continued or started work on a large number of projects in its historic Benelux markets and on the export market – the Rogier Tower building for Dexia (36 storeys, 125,000 sq. metres), the Espace Léopold for the European Parliament (75,000 sq. metres) and a new building for RTL in Brussels; the head office of the OCMV social welfare agency in Bruges; the Kievitplein complex for developer Robelco in Antwerp; the Drosbach and ▶



# High Environmental Performance Building

VINCI Construction's new building for the European Investment Bank in Luxembourg is one of the largest office space projects currently under way in Europe. It is being carried out under the BREEAM procedure developed by the Building Research Establishment to assess the environmental quality of buildings. Surrounded by a cylindrical glass canopy, the edifice will comprise nine storeys of office space, three heated atriums and three naturally-ventilated winter gardens. The transparent envelope and the winter gardens are designed to reduce energy consumption and atmospheric emissions. Work got under way in February 2005 and will take 28 months to complete.







New 100,000 sq. metre Nord-Pas de Calais Region building in Lille (Sogea Construction).

Future national television headquarters in Vietnam (33,000 sq. metres on 5 levels, with some 15 studios), built on a turnkey basis by VINCI Construction Grands Projets.

Palatin II and III buildings in Paris La Défense, handed over by GTM Construction in 2005.

75,000 sq. metre office building for the European Parliament in Brussels (CFE).

Granite Tower (36 storeys, 68,000 sq. metres) in Paris-La Défense, for which VINCI Construction is co-developer. The structural work is being carried out by four VINCI Construction companies.

## Upscale project in the Place Vendôme in Paris





# **Building**

Civil engineering
Hydraulic engineering
Services



# New Toulouse courthouse

Sogea subsidiary Bourdarios extending and structurally renovating the Toulouse courthouse as general contractor. The four-phase contract, awarded at the end of 2004, is to be completed in 44 months and has a value of €32.1 million. The project is located in the historic city centre and involves a 5,400 sq. metre structural renovation, a 4,400 sq. metre light renovation, construction of 10,000 sq. metres of office space and hearing rooms and 265 parking spaces on 4 underground levels.

→ Le Dôme complexes in Luxembourg; the Park One office building in Bratislava; and the Center Point II building in Budapest.

In the Czech Republic, VINCI Construction Grands Projets signed a €36 million contract at the end of 2005 to build the Palac Tesnov complex in Prague comprising 14,000 sq. metres of office space and 4,000 sq. metres of retail space. Last but not least, VINCI Construction Filiales Internationales worked in the French Overseas Territories to build the Cascades office building and car park in Fort de France, Martinique, and the Cadjee business centre in Sainte Clothilde on Reunion Island.

#### Public infrastructure

The increasingly widespread use of public-private partnerships and new forms of contracts to cover major infrastructure programmes initiated by public authorities helped boost VINCI Construction's activity in the various public building market segments.

Functional buildings. Complementing the construction and renovation of office buildings for private-sector customers, activity was sustained in administrative and functional building construction for public authorities. Sogea, for example, is building the new Nord-Pas de Calais Region building in Lille (100,000 sq. metres) and the new courthouse in Toulouse (see box) and it will be acting as general contractor for the new €23.5 million Ecole Nationale des Greffes building in the eastern French city of Dijon. Sogea and GTM are also building the new Bouches du Rhône Department Archives in Marseilles (35,000 sq. metres, of which 11,000 sq. metres archive space). Additionally, the Antwerp courthouse in Belgium. with its thin shell roof, is now being completed and a record €59 million contract has been won in Vietnam for the future national television complex (33,000 sq. metres on five levels, comprising some fifteen studios), which will be built by VINCI Construction Grands Projets on a turnkey basis.

**Health.** The Group's ability to take on major projects - for the most part operating as general contractor - was particularly in evidence in France, where Sogea and GTM consolidated their positions on a market boosted by the national Hôpital 2007 plan. Projects continued or started during the year included the Army Hospital in Toulon, one of the largest hospital

projects under way in France (see box), the hospitals in Sarreguemines, Bayonne and Lunel, the paediatric and maternity hospital in Lyons (Bron), the polyclinic in Blois and the La Conception clinic in Marseilles. In the United Kingdom, VINCI PLC is carrying out a major hospital renovation project in Liverpool (£60 million). In the French Overseas Territories, VINCI Construction Filiales Internationales is building the logistics centre for the teaching hospital in Pointe à Pitre, Guadeloupe, and carrying out the structural work on the Mangot-Vulcin hospital in Le Lamentin, Martinique.

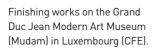
Security. In France. VINCI Construction signed 46 contracts in 2005 to build gendarmerie stations under long-term administrative leases and obtained a €30 million order for three juvenile detention centres and an administrative detention centre in 2006. In the United Kingdom, VINCI PLC is building the Kent police headquarters in Midway and taking part in the national prison renovation programme under PFI contracts, with an annual value of some €50 million. In Chile, VINCI Construction Grands Projets is building three prisons with a total floor area of 150,000 sq. metres and space for 4,900 prisoners under a national prison modernisation programme and as part of a PPP contract. The Group will be managing the three correctional facilities for a period of 20 years. The total value of the works is €79 million.

## Network and competency synergies in the hospital sector

Hospital project – which has an overall budget of €115 million







Coralium business centre in Mayotte, Indian Ocean (VINCI Construction Filiales Internationales).

Transport of one of the caissons for the floating concrete swimming pool on the Seine in Paris on the Quai de la Gare (GTM Construction).







# **Building**

Civil engineering Hydraulic engineering Services

➡ Education. Above and beyond activity conducted in France under traditional calls for tender, activity rose sharply in the United Kingdom, where VINCI PLC launched a school renovation programme in Kent following an ongoing PFI contract covering five schools in Derby. In the French Overseas Territories, Group subsidiaries are building the No. 4 middle school in Saint Laurent du Maroni (French Guiana) and the university technical centre in Saint Denis for the Region on Reunion Island. In Poland, Warbud was awarded construction of a building for the Faculty of Information Technology at Wroclaw University.

Recreation. On a market expected to grow as a result of the increasing dilapidation of existing infrastructure, VINCI Construction is building a large number of projects of all sizes. The largest include: the Omnisports Palace in Toulon (a €25 million contract); the Zénith in Nantes, an 8,500-seat concert hall with a floor area of 10,800 sq. metres surrounded by a 300 metre long, 25 metre high wall; the first floating concrete swimming pool to be built on the Seine in Paris, on the Quai de la Gare; and the Arras theatre, a structural renovation project handed over by GTM during the year.

The Group is also taking part in the construction of the large auditorium at the Cité Internationale in Lyons, a bold design by Architect Renzo Piano and landscape architect Michel Corajoud, with a modular space that can accommodate between 900 and 3,220 seats

## Housing

Residential buildings are one of VINCI Construction's main core businesses. It is bolstered in France by the structural shortage of both public and private housing. The year's many projects included the restructuring of a 111-unit student dormitory in Élancourt near Paris, the construction of a seven-building housing complex as part of the urban renewal underway on former French Railways land in Monaco, as well as orders for a 172-unit residential project in which the units will be sold in Hyères and the comprehensive rehabilitation of a Sonacotra worker dormitory in the Paris region. Activity remained brisk in the French Overseas Territories (800 housing unit starts in 2005) and in Belgium, where CFE's complementary expertise in property development and construction enabled it to take full advantage of the residential market expansion. Last but not least, in Poland Warbud is building the last instalment of the 1,500-unit upscale Marina Mokotov complex.

## Retail space and hotels

VINCI Construction's activity on the retail building market is highly diversified. Beyond the many medium-sized projects carried out by its local subsidiaries, the Group is involved in high-profile projects such as the Louis Vuitton shop on the Champs Elysées in Paris (three above-ground and two underground levels), major construction projects such as the new Ikea store in Montpellier (12,000 sq. metres above ground 20,000 sq. metres underground), as well as turnkey operations for which it performs project structuring. In France, Sogea is for example building the La Visitation shopping centre in Rennes (10,000 sq. metres retail space, 2,500 sq. metres office space, 800 parking spaces) and GTM the Lyon Républic project (€16 million works contract). In the United Kingdom, VINCI PLC is building the Blenheim Center in Hounslow, Middlesex, a 48,000 sq. metre housing and shopping complex (£58 million, the first phase of a £140 million contract). Central Europe is also a focus of activity, with the major Raduga project carried out in Saint Petersburg by VINCI Construction Grands Projets (74,000 sq. metre shopping centre, on a 243,000 sq. metre property) and the Baneasa project in Bucharest.

In hotels, VINCI Construction supports the international chains in their network deployment in Europe. The Group has worked, for example, on the new Colombes Mariott and Marseilles Radisson (189 rooms, 305 parking spaces) hotels as well as the new Novotel in Monaco, the Manchester City Inn in the United Kingdom and the Ibis (277 rooms) in Prague.

#### Industrial buildings

A major driver of this market is distribution hub projects. GTM, for example, handed over to Miko a design-build, 14-level automated refrigerated warehouse with a capacity of 30,000 palettes. In Poland, Warbud is building a new production site for Gillette in Lodz (plant, warehouse and distribution hub with a total area of 95,000 sq. metres) and has won the order for a new building for beverage manufacturer Kofola which covers the full range of building trades. In the United Kingdom, VINCI PLC is building for ProLogis a logistics warehouse to be used by the Honda automobile group.

These projects went hand-in-hand with major industrial civil engineering activity (see following pages).

- Automated refrigerated warehouse built for Miko in a project involving all the building trades (GTM Construction).
- Cupola of the new Liège-Guillemins TGV station in Belgium (CFE).
- New City Inn hotel (13 storeys, 284 rooms) in Manchester, United Kingdom (VINCI PLC).
- Distribution warehouse for the Honda automobile group in the United Kingdom (VINCI PLC).

## When building and civil engineering meet



Radisson Hotel in Boulogne Billancourt (170 rooms) in the greater Paris region, handed over in 2005 (Campenon Bernard Construction).









Building

# Civil engineering

Hydraulic engineering Services



## Transport infrastructure

In France, major motorway projects for Cofiroute (A85, A28, Angers bypass on the A11) and earthworks on the LGV high-speed rail line, the largest railway project now under way in Europe, helped boost activity. In the United Kingdom VINCI PLC is building the Baldock bypass in Hertfordshire (6.5 km, including a 250 metre cut-and-cover tunnel) and has received an order for a further section of the southwest bypass in Gloucester. In Africa, Sogea-Satom worked on a large number of earthworks and roadworks projects, including the Bisney-Ngoura-Bokoro Highway in Chad (142 km), the Mai Mahiu-Lanet highway section in Kenya (rehabilitation of 96 km of the Northern Corridor linking Mombasa and Uganda) and the RN1 Highway in the Democratic Republic of Congo (112 km).

On these various markets, significant orders – the A19 and A89 motorways in France, the Route des Tamarins on Reunion Island, the M7 motorway and northern Budapest bypass in Hungary, the Kenge-Masi-Manimba Highway in the Democratic Republic of Congo and the Sakoinsé-Bobo-Dioulasso Highway in Burkina Faso – should help maintain activity at a satisfactory level.

Last but not least, in airport infrastructure Sogea-Satom has carried out two refurbishment projects, one at Niamey Airport in Niger (253,000 sq. metres of pavement, 47,000 tonnes of asphalt mix) and the other in Impfondo in Congo, where the site is isolated in the equatorial forest and a comprehensive system had to be set up to bring in materials by river.

#### **Bridges**

In France, Sogea completed construction of the largest engineering structure on the new A89 motorway, the 990 metre long Sioule Viaduct, which won the Label Construction ASF Award; Freyssinet installed the prestressing of the structure's concrete deck (1,200 tonnes of steel). GTM for its part continued construction work on the 900 metre long Monestier Viaduct on the A51 motorway. Business was brisk



## Terre Armée structures

Terre Armée, a subsidiary of Freyssinet, invented the process of the same name, which means reinforced earth, used to build retaining walls by means of compacted backfill combined with a metal or synthetic reinforcement to form a fully composite material. It is at one and the same time cost effective, easy to install and aesthetically appealing (thanks to a wide variety of facings). The solution has been used on thousands of road, railway and hydraulic structures around the world. Major projects in 2005 included the Mbabane road bypass in Swaziland, where 36,000 sq. metres of Terre armée material were used for 14 retaining walls, 16 bridge abutments and 4 terraced walls. In 2005. over 2 million sq. metres were built around the world using this technique.



Angers bypass construction site on the A11 motorway (5 interchanges, 16 standard engineering structures, 1,700 metres of cut and cover tunnels, a 530 metre viaduct over the Maine, 2 million cu. metres of earthworks) being carried out for Cofiroute by Scao-Socaso, a consortium in which VINCI Construction companies make up a majority of the members.







Earthworks on the LGV East rail line project in France (GTM Construction and Sogea Construction).

Structure on the Krimov-St. Hranice section of the Prague-Dresden motorway in the Czech Republic (SMP).

Building

# Civil engineering

Hydraulic engineering Services



# Cable-stayed bridge on Along Bay

In Vietnam, Freyssinet is supplying and installing the cable stays and damper systems on the future Bai Chay motorway bridge across an arm of the sea that merges with Along Bay. The 903 metre structure has a record 435 metre central span. It is supported by a central set of 112 cable stays equipped with low-drag sheaths specially designed to reduce wind drag and coloured to produce the effect of a sunset. To absorb vibrations, three types of internal dampers – adapted to the length of the cable stays – were installed.

➡in the Czech Republic where SMP is building a segment bridge in Karlovy Vary, a cable stayed bridge in Nymburk, a 600-metre crossing over the Elbe north of Prague and three large bridges on the D8 motorway. In Hungary, Hídépítö is building the bridge over the Danube on the M8 motorway at Dunaujvaros, including a 320 metre metal central span, as well as a 1,800 metre viaduct over the M7, on which the internal prestressing was installed by Freyssinet.

Freyssinet also worked on other significant projects. These included the Bai Chay bridge (see box) in Vietnam; the Sungai Prai bridge fon which it installed 112 twin cable stavs and designed and supplied the deck installation arching for the approach spans) in Malaysia; the Saint Chéron bridge (a 2,400 tonne bridge which it installed in three hours using the autoripage sliding process) and the western French Bono bridge (a complete and identical reconstruction of a suspension bridge dating back to 1840) in France. In Belgium, the Kanne road bridge, built in 2005, is the first industrial application of the new Cohestrand cable strand developed by Freyssinet, which won the Grand Prize in the VINCI 2005 Innovation Awards (see page 13).

Lastly, in Chile, VINCI Construction Grands Projets began studies for the Chiloé suspension bridge. This 2,634 metre long structure will be Latin America's largest – and the world's third-largest – suspension bridge. It will be built in an earthquake-prone area, linking the island of Chiloé with the continent across the Chacao canal. The Group is building it under a 30 year concession contract.

#### **Tunnels**

On a world market difficult to access, the Group's engineering expertise and capabilities are valuable advantages. Activity on this market continued at a high level on a large number of projects. In France, the A86 West motorway tunnel (see box), the 1,455 metre Lioran road tunnel in south-central France, which was bored in 2005, and the Toulouse and Marseilles metros; in Switzerland, the Mitholz rail tunnel (three tubes with a total length of 26.5 km); in Belgium, the Soumagne rail tunnel, the country's longest at 5,940 metres on the future Brussels-Cologne high speed line; in the United Kingdom, Terminal 5 at Heathrow

- 900 metre Monestier de Clermont Viaduct on the A51 motorway in southeastern France (GTM Construction).
- Complete reconstruction of a suspension bridge built in 1840 in western France (Freyssinet).
- Construction of a 600 metre long reinforced concrete bridge over the Elbe, with 3.5 km of access roads, in the Czech Republic (SMP).
- Köröshegy Bridge built in Hungary by Hídépítö, a major player in the motorway infrastructure construction programme under way in that country.









## A86 West: from one section to another

linking Versailles with the A13,



The 990 metre long Sioule Viaduct in south-central France, the largest engineering structure on the new A89 motorway (Sogea Construction).



Building

# Civil engineering

Hydraulic engineering Services

⇒ - the last two structures were completed during the year; in the Czech Republic, the first underground structures built by SMP (Prague metro, D5 motorway). In Sweden, last but not least, VINCI Construction Grands Projets started boring the two Hallandsas rail tunnels (5,486 and 5,424 metres respectively), a project that will take until August 2010 to complete, with commissioning scheduled for 2011. Called "Asa" (which means "challenge" in Swedish), the tunnel boring machine used on this very large project is 215 metres long and weighs 3,100 tonnes. Its confinement pressure can reach an unprecedented 13 bars.

Finally, major new contracts were obtained in 2006 for the first line of the Algiers metro [€121 million contract covering station development and construction of a technical building, awarded to VINCI Construction Grands Projets) and the new Budapest metro line (boring of two 7.3 km tunnels and construction of a station, to be carried out jointly by VINCI Construction Grands Projets and the Group's Hungarian subsidiary Hídépítö).

#### Port and maritime works

On Reunion Island, a consortium made up of VINCI Construction companies won the €73 million contract to extend the island's commercial port, including construction of a 635 metre underground cut-off wall wharf. In New Caledonia the Group won the €61 million contract to build a port serving Goro Nickel's future mining operations in Prony Bay. In Equatorial Guinea, Sogea-Satom is carrying out reinforcement and widening work on a 3.5 km marine breakwater in Boloco – a project that required 90,000 cu. metres of riprap and 60,000 cu. metres of materials on a 10 metre wide land take.

In dredging, CFE subsidiary DEME continued work on the very large "Pearl of the Gulf" artificial island construction project in Qatar (for which Ménard Soltraitement supplied and installed the vertical drains). Another major dredging contract covering construction of the pavement support for the new international airport in Doha, boosts the company's position in that country. On its historic market DEME also obtained six-month renewal of its Belgian coastline maintenance contract. During the year, a new cutting dredger, the D'Artagnan, was commissioned. It is the most powerful









dredger of its kind in the world and can cut through hard and soft rock at depths of between 6 and 35 metres. The D'Artagnan gives DEME the capability to work on very large projects, especially port deepening and offshore con-

Several port projects called on Freyssinet's specialised civil engineering expertise. In Wales, the South Hook platform, on which a new liquefied natural gas tank is to be built, was repaired and reinforced by means of shotcrete and cathode protection; in South Korea, two platforms in the port of Kwang Yang, measuring 295,000 and 55,000 sq. metres respectively, were consolidated using the exclusive Ménard Vacuum process.

In addition, many port and river dredging and development projects are being carried out by specialised VINCI Construction subsidiaries in France, such as the sand removal work in the Arcachon basin, performed by EMCC, and the GTM project in the Brest naval dockyard (drydocks 2 and 3).

## Major energy and industrial facilities

Several major projects used the complementary competencies of VINCI Construction Grands Projets and the Group's local subsidiaries, especially in the French Overseas Territories. In French Guiana, VINCI Construction is building the future Soyuz launch pad (see box). In New Caledonia, it was awarded the \$60 million construction contract for the new Goro Nickel ore processing plant, in addition to the contract for the port that will serve the site; some 20 industrial structures (processing plant, steam generation and ore storage buildings, crushing unit, etc.) will be built on a 10 hectare area, in a project that supplements the construction of a 2x50 MW coal-fired power station, already under way at the same site.

Business was also brisk on the growing liquefied natural gas tank market. VINCI Con-

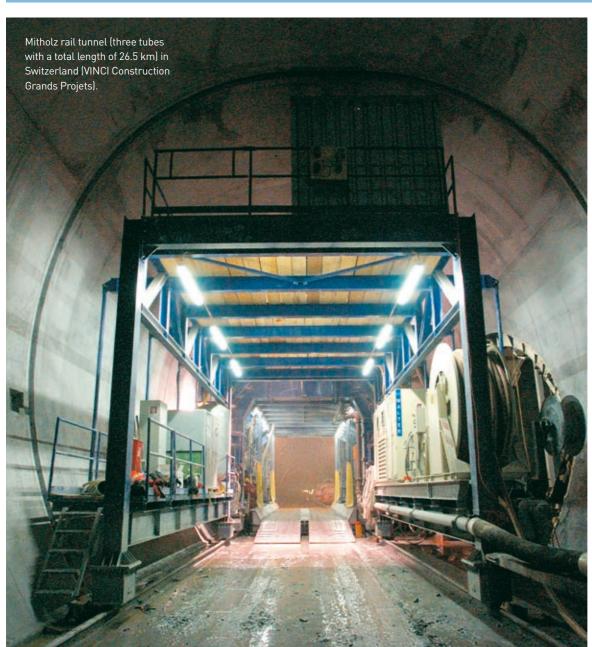
struction Grands Projets worked on three projects in Qatar (a 140,000 cu. metre tank), Italy and Mexico (two 160,000 cu. metre tanks in each of these countries), with the help of Freyssinet, which supplied the prestressing. Meanwhile CFE started civil engineering work on a natural gas tank in Zeebrugge.

In the nuclear sector, Freyssinet is installing the prestressing at a new-generation EPR reactor in Finland. In France, GTM is working for the CEA in Cadarache on the civil engineering of the RES experimental installation (2nd instalment). GTM, Sogea and VINCI Construction Grands Projets are also working with ANDRA to build nuclear waste storage sites (waterproof repositories, deep storage experimental laboratory). Last but not least, VINCI Construction was awarded the civil engineering contract for the 720 MW, €27 million Ca Mau conventional thermal power station that will supply the southern part of Vietnam, following on a first contract to consolidate a 9 ha surface area using the Ménard Vacuum process.

## New launch pad for the Soyuz launcher in Kourou

Guiana. The €135 million





DEME is performing the dredging and maintenance work on the Belgian coast under a six-year contract.

Construction of the port serving the future Goro Nickel mining operations in New Caledonia (VINCI Construction Grands Projets, Dumez-GTM Calédonie).

Connection of a storm sewer to the access shaft at the future Ivry-Masséna (Tima) storage tunnel in Paris (Sogea Construction).

Hallandsas double rail tunnel (5.5 km) in Sweden, bored with a 215 metre long TBM (VINCI Construction Grands Projets).

Soumagne Tunnel, Belgium's longest rail tunnel (CFE, VINCI Construction Grands Projets).

Cut and cover tunnel on for the IV.C2 line of the Prague metro (SMP).

Liquefied natural gas tank with a capacity of 140,000 cu. metres in Qatar (VINCI Construction Grands Projets).







Building
Civil engineering

# Hydraulic engineering

Services



#### **Dams**

In Egypt, the Naga Hammadi dam construction site on the Nile has entered the full production stage, in which up to 2,000 people are employed. In Algeria, the operation designed to raise the Ghrib dam is underway, in which 20 fusegates with a height of 4.50 metres will be installed to add an additional 70 million cu. metres to the dam's retention capacity. This contract is the largest awarded to date to the specialised subsidiary Hydroplus, and the third in three years in Algeria.

# Hydraulic networks and drinking water systems

In France, VINCI Construction local subsidiaries perform a great number of standard hydraulic engineering projects. They also take part in major operations such as network displacements in connection with the Paris, Bordeaux and Nice tramway lines and the installation of interconnecting pipelines in the Nord-Pas de Calais region (crossing of the Deûle Canal by directed drilling).

In the United Kingdom, VINCI PLC has signed a five-year national framework agreement to renovate drinking water stations (£9 million in contracts awarded in 2005). In the Czech Republic, SMP is rebuilding the Hradiste drinking water plant in the north of the country, which will serve a population of



# Drinking water supply to the Agadir region

Sogea-Satom has operated in Morocco for many years and is now part of a consortium carrying out major drinking water supply works in the Agadir region. 1,000 mm diameter pipes were laid over a distance of 40 km north of Agadir. This first phase of the works, completed in 2005, required major earthworks in particularly hilly terrain. The project continues with the construction of a water treatment plant and its ancillary facilities at four different sites. The work to be carried out includes two head reservoirs with a capacity of 500 cu. metres, two filtered water storage tanks with a unit capacity of 5,000 cu. metres, a three-storey operations building, a pumping station and a raw water pumping station.

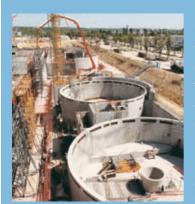
over 250,000, and is also taking part in flood protection works in Prague.

In Africa, Sogea-Satom is refurbishing and extending the supply and sewer systems in the cities of Entebbe and Kabale, Uganda, and in Burkina Faso it is building 13 pumping stations, nine reservoirs and eight water towers in Ouagadougou. In Jamaica, the Group is continuing the renovation of the islands network. The drinking water supply system in the city of Lucea from the Great River treatment station was named "Engineering Project of 2005" by the Jamaica Institution of Engineers. Last but not least, In Libya VINCI Construction Grands Projets is building two pumping stations with a unit capacity of one million cu. metres per day and a control unit on a turnkey basis as part of the Great Man-Made River project (third instalment); the company is doing the civil engineering work and also overseeing installation of electromechanical equipment (pumps, pipes, valves, processes). The turnkey project got under way in 2002 and is scheduled for handover in 2007.

## Purification plants

VINCI Construction companies are developing design-build purification plant offerings that cover the full range of civil engineering and process engineering capabilities. Making the most of their expertise on a market boosted by strong demand from local authorities, they took part in the construction of 76 purification plants and booked an additional 41 orders in 2005. The largest projects included the nitrification-denitrification unit at the Achères plant (see box) and the sludge treatment unit at the Valenton plant in the greater Paris area; and the biological extension to the existing purification plant in Marseilles.

This expertise is also put to use in other European markets. CFE, for example, completed construction of the Tubize purification plant in Belgium in 2005 and Hídépítö will soon be carrying out the civil engineering on a purification plant with a capacity of 350,000 cu. metres per day near Budapest, which will be treating over 50% of the Hungarian capital's waste water.



## Achères, a showcase for VINCI Construction know-how

The nitrification-denitrification unit The design-build contract is being

Bernard TP, lead, and GTM GCS); the Caillaud for bonded laminate and VINCI Technologies for studies,

frames, Botte Fondations for cut-off the supply of concrete. The work



Construction of the Naga Hammadi dam in Egypt which will regulate the flow of the Nile and be used for irrigation and power generation (VINCI Construction Grands Projets).

Construction of two pumping stations and two regulation reservoirs as part of the Great Man-Made River project (phase 3) in Libya (VINCI Construction Grands Projets).

Construction of a biological extension at the Marseilles purification plant (GTM Construction).

Sand removal from the Arcachon Basin (Sogea Construction).

Reconstruction in the Czech Republic of the drinking water treatment station in Hradiste, serving a population of 250,000 (SMP).









Building Civil Engineering Hydraulic engineering

## Services



## Property structuring and development

In France, building projects which include property structuring make up an increasing share of Sogea's and GTM's business activity. Major projects now under way include the La Visitation shopping centre in Rennes, the urban section of the TGV station in Nancy, the new Carglass head office in Courbevoie and the Lyon-République development. Several gendarmerie construction projects have also been undertaken under property development contracts associated with long-term administrative leases. In 2006, major projects slated to get under way include GTM's refurbishing of the former Crédit Foncier head office in Paris and the Danone site in Ris Orangis as well as a large number of smaller projects.

In Belgium and Luxembourg, where CFE's property development and management division operates, the company has made the most of the booming residential property market, in which the selling price of apartments has risen steeply. On the office space market, the specialised BPI subsidiary recorded the sale of a building in 2005 (in the rue des Drapiers in Brussels) and the lease of 50% of the offices in the Jardins de la Couronne complex to the federal police for a period of 18 years.

On the export market, VINCI Construction Grands Projets' expertise in turnkey project structuring was in evidence in major projects under way in Eastern Europe (Raduga project in Russia, Baneasa project in Rumania and Palac Tesnov project in the Czech Republic).

## Facilities management

In Germany, after winning a major PPP contract for renovate and manage 43 schools for a 15 year period in the Offenbach district in 2004 (with a value of €295 million), SKE signed a similar contract with the city of Bedburg near Cologne (€47 million).

In the United Kingdom, several contracts entered the operational phase as part of PFI projects won by VINCI PLC, with durations ranging between 25 and 30 years – schools in Derby and Rhondda and police stations in Swindon and Medway. In technical maintenance, Rosser & Russell Building Services, a specialised VINCI PLC subsidiary, continued its major Whittington Hospital project north of London and won several significant new contracts (office building in the Tottenham Court Road and the Institute of Child Health in London, concert hall in Dunstable).

In Belgium, Sogesmaint, a subsidiary of CFE, confirmed its leadership position with over 1.4 million sq. metres under management at the end of 2005.

Multi-technical and multi-service maintenance is also on the increase in France, especially under the Manei brand (Sogea), which extended its capabilities in 2005 to cover lift maintenance. New contracts were won in Paris and the Paris region with the Samaritaine (18,000 sq. metres), Generali (20,000 sq. metres), Nexity Gestion (30,000 sq. metres), Kaufman & Broad (12,000 sq. metres) and Difa (25,000 sq. metres). GTM for its part won the renewal of its contract with the Ministry of the Interior to maintain the waiting area for persons being processed (Zapi) at Roissy-CDG Airport.

#### Water treatment, waste-to-energy

Extending its civil engineering work, VIN-CI Construction continued to diversify into services related to the environment. Sogea, which has already built over 70 drinking water plants and 250 purification plants, operates 24 plants in France with a combined population equivalent capacity of 1.25 million. New operating contracts obtained during the year included the Charleville-Mézières purification plant (pop. equiv. 100,000), for a period of six years. GTM Environnement, for its part, won seven contracts with a combined population

equivalent capacity of 100,000.

The waste treatment and recycling activity also increased sharply during the year. The innovative processes used by Sogea and its specialised subsidiary VINCI Environnement were chosen by the cities of Chambéry, Saint Lô and Montpellier (see box), among others.

# Installation and operation of fibre-optic networks

VINCI Networks (Sogea) rolls out and operates broadband telecommunications networks under public service outsourcing contracts. Supporting the projects of local authorities, this activity substantially increased during the year, with new contracts recently awarded by the Communautés urbaines urban groupings of Creusot-Monceau, Arras and Grand Chalon (a concession signed in November 2005), which supplement ongoing contracts with greater Toulouse and the Moselle département.

In Offenbach and Bedburg, Germany, SKE is building/renovating and maintaining school buildings as part of a long-term PPP.

2

The multi-technical and multi-service maintenance activity carried out in France under the Manei brand (Sogea Construction) was extended in 2005 to cover lift maintenance.

3

The "La Visitation" shopping centre in Rennes, built by Sogea under a property structuring operation.

4

Sogea and GTM built some 20 gendarme stations in France under long-term administrative leases.

## Waste recycling by biomethanisation

biomethanisation is in widespread use in Europe as a waste treatment

















## Companies

# Sogea Construction

GTM Construction
VINCI Construction Filiales Internationales
VINCI PLC
Compagnie d'entreprises CFE
VINCI Construction Grands Projets
Eroyspinet



EMCC, a subsidiary specialising in marine and river works, laying natural gas pipelines under the Seine.



Modernisation of the Achères purification plant in the Paris area, which has a nitrification-denitrification unit



Building on an exceptionally close-knit network of 240 locations in France, Sogea Construction covers the full range of construction business lines. Its integrated offering combines a local approach and global solutions.

Building. Operating in all building sectors (construction, refurbishment and demolition of residential, office, special purpose and industrial buildings, and historic monuments), Sogea Construction brings together benchmark brands recognised for their teams, expertise, highquality methods, productivity and technical capabilities.

Civil engineering. Bringing together the expertise of its specialised subsidiaries and the local roots of its regional locations, Sogea Construction covers the full range of civil engineering business lines and markets and takes on a very wide variety of projects – engineering structures,

earthworks, environmental engineering, underground works, maritime and inland waterway works, special foundations, and special works.

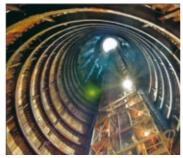
#### Hvdraulic engineering.

Building on a track record in hydraulic engineering going back more than a century, Sogea Construction covers the full range of business lines: installation, maintenance and operation of water distribution and wastewater collection systems; design and construction of drinking water production and wastewater treatment plants, desalination plants, and pumping and pressure-boosting stations. Sogea Construction also operates in state-of-the-art drilling, pipeline microtunnelling, trenchless refurbishing and vacuum drainage works.

Services. Upstream of construction works, Sogea Construction develops property



Sioule Viaduct (990 metres long; 192 metre central span): a major structure on the last section of the A89 motorway linking Clermont Ferrand and Bordeaux.



Construction of an emergency shaft on the A86 West toll tunnel in the Paris region, which will be operated as a concession by Cofiroute.



Sogea Construction, with its Manei brand, is a major player on the multitechnical and multi-service building maintenance market in the Paris region.



projects; downstream, it provides multi-technical and multi-service building maintenance. Sogea Construction also offers highservice-content solutions in environmental activities (waste recycling and water, sludge, odour, flue gases and emissions treatment processes; operation of wastewater treatment plants) and optical fibre networks (rollout and operation of networks under public-service outsourcing contracts).

### **Key figures** (in € millions) 2004 2005 Revenue 2,344 2.744 Operating profit 123.5 152.6 Net profit 89.4 103

New Nord-Pas de Calais Region building in Lille: a 100,000 sq. metre building built with the HQE® (high environmental quality) approach.

Jean Rossi

Pierre-Michel Chaudru

Jacques Mimran

Jean-Marc Médio

Yves Périllat

Jean-François Gouédard

Hervé Meller

#### Management team

Gérard Bienfait

José-Michaël Chenu

Manuel Saez-Prieto

Main brands and companies

• Building: Bateg, Bonino, Bourdarios, Camozzi Bâtiment, Campenon Bernard, Caroni

Projets completed in 2005

4,600

• Civil engineering: Armor, Botte ondations, Campenon Bernard,

• Hydraulic engineering: Acanthe, Barriquand, Cardaillac, Claisse, Cuisset, Extract, MTHA, Par.

• Services and support: Comofi,

### Workforce: 12,880



Sogea Construction

## **GTM Construction**

VINCI Construction Filiales Internationales VINCI PLC Compagnie d'entreprises CFE VINCI Construction Grands Projets Frevssinet



The new Pontoise courthouse (11,800 sq. metres, 270 parking spaces) built by GTM Bâtiment on a general contracting basis and handed over in 2005.





Palatin II and III Buildings in La Défense, handed over in 2005 (GTM Bâtiment, Petit).



Refurbishment of the drydocks (2 and 3) in the Brest shipyards (GTM Bâtiment).



Earthworks on the LGV Est, the largest railway project currently under way in Europe (GTM Terrassement).



Sludge treatment unit for the Valenton purification plant in the Paris region (GTM Génie Civil et Services).

2005

#### Revenue

1,825 1,977

#### Operating profit

61.3 86.6

#### Net profit

54.4 62.1

#### Management team

Robert Hosselet

Jean-Pierre Bonnet

Patrick Plein

Louis Demilecamps

**Xavier Quintin** 

REGIONAL AND OPERATIONAL

**Denis Gauthier** 

Alain Bonnot

Denis Elbel (North

Xavier Neuschwander

François Guillon Alain Denat Philippe Goulley

#### Workforce: 9,970



Projets completed in 2005

4,300

### Main brands and companies

Operating throughout France through a network of 80 locations structured in seven regional divisions, GTM Construction covers the full range of construction building lines, combining high-level capabilities in each area with outstanding cross-cutting expertise. Its extensive knowhow together with strong innovation potential and a common culture based on the values of professionalism and service, enable it to devise the best solutions for each project at all stages of construction.

Building. GTM Construction designs, builds and refurbishes all types of new buildings - service sector, industrial, special purpose, residential, etc. - of all sizes. It also performs structural renovation and rehabilitation of occupied premises and restores historic monuments.

Civil engineering, GTM Construction designs, builds and refurbishes all types of public works and civil engineering structures (bridges, airport pavements, embankments, underground and hydraulic engineering works, sanitation systems, pipelines, etc.). Its extensive track record of high-quality projects bears witness

to its ongoing commitment to research, innovation and environmental protection.

This division brings together the earthworks, demolitiondeconstruction, asbestos removal and nuclear dismantling activities. GTM Terrassement's outstanding expertise enables it to carry out a very diverse range of projects (infrastructure, sewers and drainage systems, dams, landscaping, port and river works, rock cutting, blasting,

etc.) using state-of-the-art (GPS, topographical) machinery guidance systems and the expertise of its integrated geotechnical laboratory.

GTM covers a broad range of know-how, which extends its technical expertise (historic monuments, glued-laminated wood frames) and broadens its offering upstream and downstream of construction (property project development, maintenance, operation of sports facilities, etc.).

Sogea Construction
GTM Construction

## **VINCI Construction Filiales Internationales**

VINCI PLC Compagnie d'entreprises CFE VINCI Construction Grands Projet



In Germany, SKE is refurbishing 43 schools in the district of Offenbach and some 15 schools in Bedburg, for which it will also be providing global maintenance.



VINCI Construction Filiales Internationales operates primarily in Germany, Central Europe, the French overseas departments and territories and Africa, combining strong roots in each of its markets with a management culture that ties them all together.

Germany. VINCI Construction Filiales Internationales operates mainly in the facilities management market, with SKE, which provides global maintenance of public facilities under multi-year contracts (American army bases, schools). VINCI Construction Filiales Internationales also operates in architectural fitting and finishing with G+H Bautec.

Central Europe. In Poland, Warbud is a major player in the building (residential, shopping centre, public facility, industrial) market and is also expanding its operations in civil engineering. In the Czech Republic, SMP is one of the main builders of engineering

structures (bridges, tunnels, hydraulic works), while FCC works primarily in the privatesector building market. In Hungary, Hídépítö is one of the leaders in civil engineering (bridges and motorway infrastructure, hydraulic networks). VINCI Construction Filiales Internationales also operates in Serbia through Inter-Most (construction and renovation of engineering structures) and Novkol (hydraulic engineering works), as well as in Slovakia through APS Alkon (building).

Africa. Sogea-Satom, a major player in building and civil engineering in Africa, operates in 19 African countries and in four sectors: roads/earthworks. hydraulic engineering, civil engineering and building. The broad range of its business lines enables it to smooth the cyclical swings in international financing policies, sustaining its operations on the continent for over 70 years. Sogea-Satom works through a vast network of locations with local roots and employs some 7,500 people, including more than 400 local and European expatriate management staff.



On Reunion Island, SBTPC and Sogea Réunion built the Chaudron business centre.



In Africa, Sogea-Satom is carrying out major road projects in Chad, Kenya and the Democratic Republic of Congo.



In Poland, Warbud is completing the last instalment of 1,500 upscale housing units in the Marina Mokotow complex.



rench overseas departments nd territories. Operating in most of the French overseas departments and territories (Guadeloupe, Martinique, French Guiana, Reunion, Mayotte, New Caledonia), VINCI Construction Filiales Internationales entities cover the full range of construction business lines: building (residential and administrative), earthworks, civil engineering, main services, hydraulic engineering, etc. Their local roots enable them to contribute to the development of a large number of public and private sector facility and infrastructure projects.

#### **Key figures** (in € millions)

2004 2005

Revenue

1,556 1,775

#### Operating profit

92.3

#### Net profit

37.2 66.8

In the Czech Republic, SMP is building a 600 metre long reinforced concrete bridge across the Elbe north of Prague, as well as several large bridges and tunnels along the D5 and D8 motorways.

#### Management team

#### Sébastien Morant

#### **Bernard Lenfant**

#### Raoul Dessaigne

#### Rainer Beisel

#### François Ravery

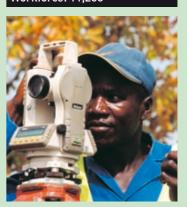
#### **Xavier Debreux**

#### Jérôme Bénet

CHAIRMEN AND CHIEF EXECUTIVES - SUBSIDIARIES **Endre Apathy** Rainer Beisel Vladimir Brejcha Philippe Chavent Jean-Louis Choulot Martin Doksansky Roger Georges Jean-Michel Guelaud Jean-Marc Huillard Milorad Jankovic Jean-Yves Le Pavec Mauro Lisa Christophe Martin René Milosevic Vladimir Mizik Herman Merkl Hervé Ronot

Wlodzimierz Wlodarczyk

### Workforce: 11,200



Projets completed in 2005

4,120

### Main brands and companies

• Germany: G+H Bautec,

• Central Europe: Warbud (Poland), FCC and SMP Construction (Czech Republic), Hídépítö (Hungary), Novkol and

• Africa: Sogea-Satom

• French overseas departments and territories: SBTPC, Soge

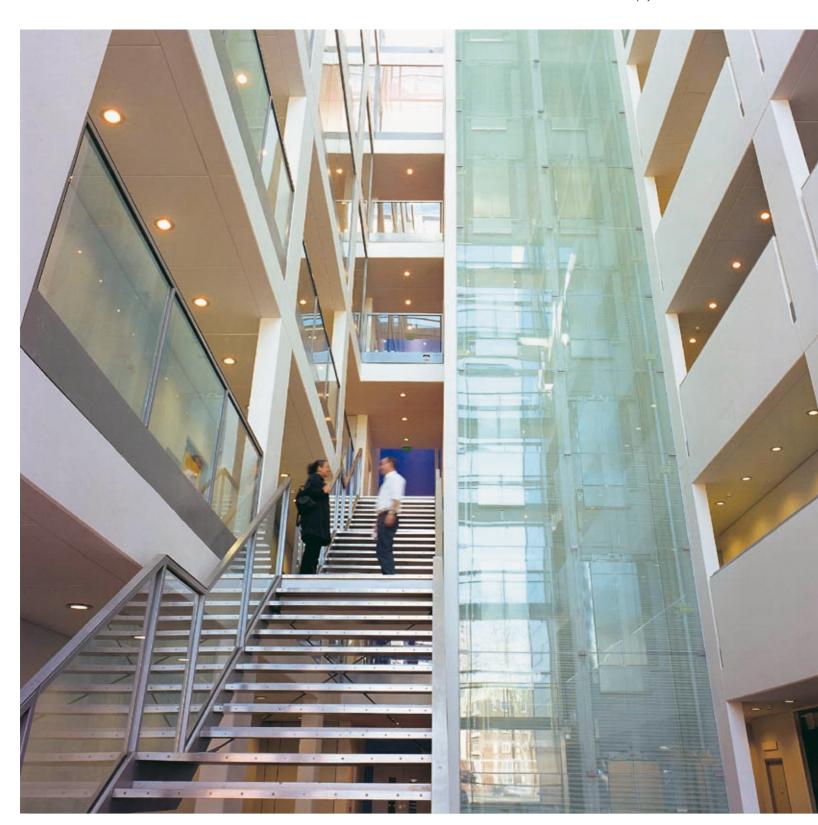
GTM Construction
VINCI Construction Filiales Internationales

# VINCI PLC

Compagnie d'entreprises CFE VINCI Construction Grands Projets Freyssinet



Refurbishment of Hackney Hospital in London, a Victorian-era building converted to a psychiatric centre.





6.5 km Baldock bypass in Hertfordshire, comprising a 250 metre cut-and-cover tunnel.



Construction of a 13-storey, 284-room hotel in Manchester for City Inn Ltd.



Construction of an innovative urban golf course at Northwick Park in Harrow, west of London.

2004

2005

Revenue

751

938

### Operating profit

19

20.6

Net profit

20.6 24

#### Management team

John Stanion

**David Joyce** 

Alec Comba

David Bowler

John Bergin

### Workforce: 2,680



Projets completed in 2005

850

### Main brands and companies

Drawing on the expertise of its specialist subsidiaries, VINCI PLC provides integrated services throughout the United Kingdom. The company's proposals cover the entire range of construction business activities and every stage of project implementation.

 Norwest Holst, a major player in the British market, operates in all building, civil engineering and technical services business lines and is structured in major divisions: building; civil engineering; soil engineering (geotechnical studies); environment; engineering (mechanical, electrical, instrumentation and telemetry); telecommunications networks and technical premises (Graniou UK); and services (see below).

Construction, fitting and finishing of the new Social Science School building at the Islington University in central London.

- Simplex Foundations has recognised expertise in foundations (piling, drilling, injection); the company has a large fleet of machinery and its own pile manufacturing plant.
- John Jones Excavation carries out large-scale complex earthworks in a wide variety of sectors: quarries, coastal defence, roads, railway lines, waste storage sites, green space development, and so on.
- Crispin & Borst, operating primarily in London and the Southeast, operates in construction-renovation, interior works and building maintenance, complementing Norwest Holst's building division.
- Rosser & Russell Building Services, is specialising in fitting and finishing (thermal and mechanical works, electricity) and technical building maintenance.
- Conren lays special surfacings on pavements, industrial and retail flooring, walls, roofs, etc.

- McGill Services Ltd operates in ship fitting.
- VINCI Investments Ltd provides project structuring and financial engineering under PFI contracts covering construction and management of public facilities (road infrastructure, schools, hospitals, prisons, administrative centres, etc.).
- Norwest Holst Support Services offers global multiservice maintenance and facilities management solutions, especially under PFI contracts for which Norwest Holst takes on responsibility for construction.

Sogea Construction
GTM Construction
VINCI Construction Filiales Internationales
VINCI PLC

## Compagnie d'entreprises CFE

VINCI Construction Grands Projets Freyssinet



Moerdijk Bridge along the HSL4 rail line in Dordrecht, Netherlands.



VINCI Construction holds a 45% interest in CFE, a major construction player throughout the Benelux countries, which is listed on the Brussels Euronext. CFE is engaged in four complementary business lines, enabling it to operate at all stages of construction and regional development projects.

Construction. CFE operates in Belgium, the Netherlands, Luxembourg and Central Europe (Poland, Hungary and Slovakia). It covers the full range of sectors in building (new construction and refurbishment of office, residential, industrial and hotel buildings), civil engineering (bridges, tunnels,

dams) and environmental facilities (wastewater treatment plants, installation of flue gas scrubbers). CFE's position as a leader in the Belgian market was further consolidated in 2005 with the acquisition of the Van Wellen company, which enabled CFE to expand into the road construction market.

Property development and management. The property development activity, centred on Belgium and Luxembourg, involves both office and residential buildings and shopping centres. Downstream of the construction process, Sogesmaint, Belgium's leading office building management company, provides property and facilities management services.

#### Multi-technical services

Working for the other CFE divisions and for outside customers, the Nizet, Engema and Vanderhoydoncks companies operate in Belgium in electricity-related business lines – general electrical and electromechanical contracting for the service and industrial sectors; catenaries and signalling systems for railroads; and overhead and underground power lines. They are also expanding their multi-technical

maintenance operations. The Voltis company also offers a diversified range of domestic electrical appliances at its store in Louvain La Neuve.

Dredging. DEME is a leading player in the world dredging and marine engineering (off-shore, etc.) markets. The capabilities of its fleet and its expertise based on a track record going back more than a century enable it to work on major projects all over the world. DEME also works in environmental business lines (soil and sludge drainage). CFE holds a 50% interest in DEME.



The megacutter D'Artagnan is able to dredge rock at depths of up to 36 metres.



New building for RTL, one of the many construction projects currently being carried out by CFE in Brussels.



Property development operation involving three office and residential buildings in Brussels.

2005

Revenue

864

976

#### Operating profit

32.3

50.7

#### Net profit

13

24.2

Stadsfeestzaal project (shopping centre, housing, car parks) in the centre of Antwerp, built by the ABEB company.

#### Management team

**Renaud Bentegeat** 

Jacques Ninanne

Gabriel Marijsse

CONSTRUCTION Lode Franken

Patrick de Caters Belgiur Patrick Van Craen

**Bernard Cols** 

Frédéric Claes

Patrick Verswijvel Roger and Jos Van Wellen

Ber Groot N Luc Vandeputte CFE International

PROPERTY DEVELOPMENT AND MANAGEMENT Jacques Lefèvre

Patrick Van Craen

Michel Guillaume

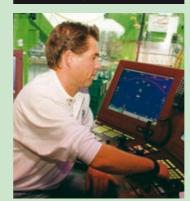
**Catherine Vincent** 

MULTI-TECHNICAL Christian Van Hamme

Jacques Ninanne

DREDGING AND ENVIRONMENT Marc Stordiau

Workforce: 3,920



Projets completed in 2005

1,180

Main brands and companies

• Construction: ABEB, Bageci,

• Property development and management: BPI, CFE Immo

• Multi-technical services:

• Dredging and environment:



High voltage line maintenance carried out by Engema, one of CFE's multi-technical division subsidiaries.

Sogea Construction
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VINCI PLC

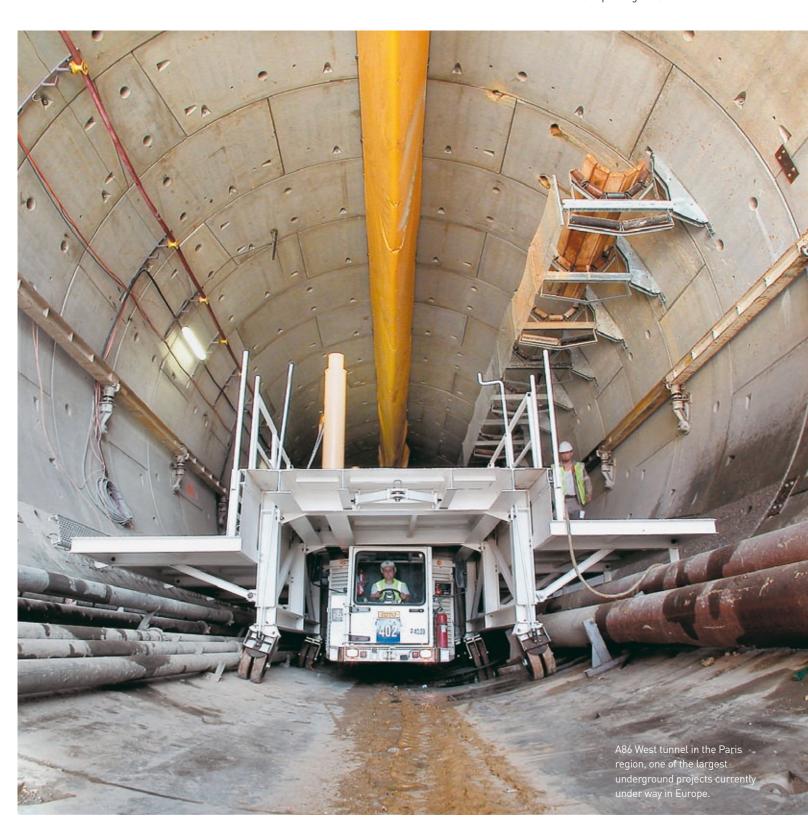
Compagnie d'entreprises CFE

# **VINCI Construction Grands Projets**

Freyssine



Construction of the Naga Hammadi Dam in Egypt, which will regulate the flow of the Nile and support irrigation and power generation.





Liquefied natural gas tank in Qatar (140,000 cu. metres); several similar projects are under way in Italy and Mexico.



Construction of three prisons in Chile, as part of a public-private partnership which includes management of the sites for 20 years.



Fluidis-WMI's water treatment design-build offering complements its water distribution network audit and repair capabilities.

2004

Revenue

547 606

Operating profit

24.6 29.7

Net profit

27.8 32.1

#### Management team

#### Pierre Berger

**Hubert Baur** 

Patrick Béchaux

Jean-François Ravix

**Christian Simon** 

Richard Touroude

Jean Volff

#### Workforce: 4,350



Projets completed in 2005

### Main brands and companies

- VINCI Construction Grands **Projets**
- Socaso: design, construction.
- Hydroplus: fusegates for dams
- Janin Atlas Inc. (Canada):
- WMI Fluidis: full range of

Building on the legacy of companies going back a century and a track record in high-profile projects around the world, VINCI Construction Grands Projets covers the entire range of expertise required to build complex structures. Around the world, VINCI Construction Grands Projets designs and builds large civil engineering structures (tunnels, bridges, dams, liquefied natural gas tanks, road and railway infrastructure, etc.) and buildings (high-rise buildings, shopping centres, hotels, large industrial facilities, nuclear power plants, etc.).

VINCI Construction Grands Projets provides a high level of expertise and strong engineering and management capabilities which, combined with a responsive organisational structure and a policy of forging partnerships with local companies, enable it to provide

solutions that are both global and modular. These solutions meet the wide-ranging needs of public and private sector clients, from technical support to the provision of turnkey projects and maintenance.

The range and diversity of VINCI Construction Grands Projets' expertise are evidenced by the major structures now under construction. They include the Hallandsas and Mitholz railway tunnels in Sweden and Switzerland respectively; the A86 Ouest motorway tunnel in France; the A19, A11 and A28 motorways in France; the Naga Hammadi dam in Egypt; the Al Gardabiya-Assdada pumping stations in Libya; the Goro conventional thermal power station, port and ore processing plant in New Caledonia; the Ca Mau conventional thermal power station in Vietnam; the Olympic Stadium in Beijing, China; the

Soyuz launch pad and ground facilities in French Guiana; the Raduga shopping centre in Russia; the Palac Tesnov office building in the Czech Republic; the European Investment Bank building in Luxembourg; the Vietnamese national television complex in Hanoi; the Andra underground laboratory in northeastern France; and the liquefied natural gas tanks under construction in Egypt, Qatar, Mexico and Italy. VINCI Construction Grands Projets had a very large order backlog at the end of 2004 and 2005 — €773 and €800 million respectively—, confirming its position as a major player in the world market for large

structures

Sogea Construction
GTM Construction
VINCI Construction Filiales Internationales
VINCI PLC
Compagnie d'entreprises CFE

# **Freyssinet**



Comprehensive, identical reconstruction of a 19<sup>th</sup> century suspension bridge in Bono (western France) for which Freyssinet was general contractor.





Consolidating a 295,000 sq. metre surface in the port of Kwang Yang, South Korea, using the Ménard Vacuum process.



Mbabane bypass in Swaziland, where 36,000 sq. metres of Terre Armée reinforced earth were applied.



In Finland, Freyssinet is installing the prestressing for a new-generation EPR nuclear reactor.



Heaving lifting operation on the Shenzhen Western Corridor Bridge in China, which Freyssinet is also equipping with cable stays and bridge bearings.

2004

Revenue

440 508

Operating profit

16.3 20.9

Net profit

9.1 22.2

#### Management team

#### **Bruno Dupety**

Philippe Héry

Jérôme Stubler

Roger Bloomfield

Patrick Nagle

Jorge Moreno

Philippe Zanker

Yann Grolimund

Claude Lascols

#### Workforce: 3,660



Projets completed in 2005

6,020

### Main brands and companies

Operating on five continents through some 60 locations, Freyssinet is a leader in high added value business lines and products related to specialised civil engineering. Freyssinet offers a full range of capabilities in two major complementary business lines, structures and soils.

Structures. Bringing together an unrivalled combination of specialised civil engineering expertise, Freyssinet operates in new construction, repair and maintenance of all types of structure: bridges, tunnels, industrial (silos, tanks, offshore platforms) and retail (supermarkets, warehouses) facilities, high-rise buildings and historic monuments. It is world leader in prestressing, cable stays and structure repair and reinforcement. Freyssinet also provides outstanding expertise in deck construction (incremental launching, span-by-span and cantilevered installation of prefabricated segments); supply and installation of bridge equipment (bearings, pavement joints, earthquake-proofing devices); handling and lifting of heavy loads; and maintenance and surveillance works.

Soils. Through the Terre Armée and Soltraitement brands, Freyssinet has developed a comprehensive range of retaining wall and soil stabilisation solutions: Terre Armée reinforced earth retaining walls and bridge abutments, tunnels and underpasses (TechSpan prefabricated arch segments); soil treatment (compacting, ballasted plugs and columns. controlled modulus columns, etc.); soil remediation; foundation refurbishment; anchor ties; diagnostics and monitoring, etc. These solutions, used primarily for large transport infrastructure and pavements required to withstand very heavy loads, complement Freyssinet's

structure solutions. Freyssinet, which owns a large number of exclusive processes and products (164 inventions covered by current patents), continues to apply an active research and development policy and maintains close ties with research laboratories and specialised schools.



