



- 2 | Message from the Chairman
- 4 | Management team
- 6 | Profile
- 8 | Key figures
- 10 | Synergies

12 ECONOMIC PERFORMANCE

- 14 | A network of local subsidiaries
- 17 | Specialised civil engineering
- 18 | Management and execution of complex projects
- 19 | Outlook

20 SUSTAINABLE DEVELOPMENT

22 | A responsible Group

2011 BUSINESS REPORT

28 | BUILDING 42 | CIVIL ENGINEERING 58 | HYDRAULIC ENGINEERING

66 | Main VINCI Construction companies

"VINCI CONSTRUCTION HAS AN EXCEPTIONALLY DIVERSE RANGE OF TEAMS AND EXPERTISE"

How well did VINCI Construction perform in 2011?

Business activity underwent a strong recovery in 2011. We confirmed our return to growth – virtually all of it organic – and at the same time maintained our operating margin. This was true not only in the growth regions outside Europe where we are now generating nearly 20% of our revenue, but also in most of our traditional areas of operation within Europe, and especially in France.

Our model, based on a large number of business activities and countries, once again proved robust. It is particularly powerful when its three components – our local networks, specialised subsidiaries and major projects teams – work together. We see this in the many projects our companies have won both in France and abroad, ranging from stadiums to hospitals, underground works, LNG tanks, hydraulic and energy facilities, and of course major infrastructure projects, such as the South Europe Atlantic high-speed rail line, which are carried out under concession contracts by the VINCI Group as a whole.

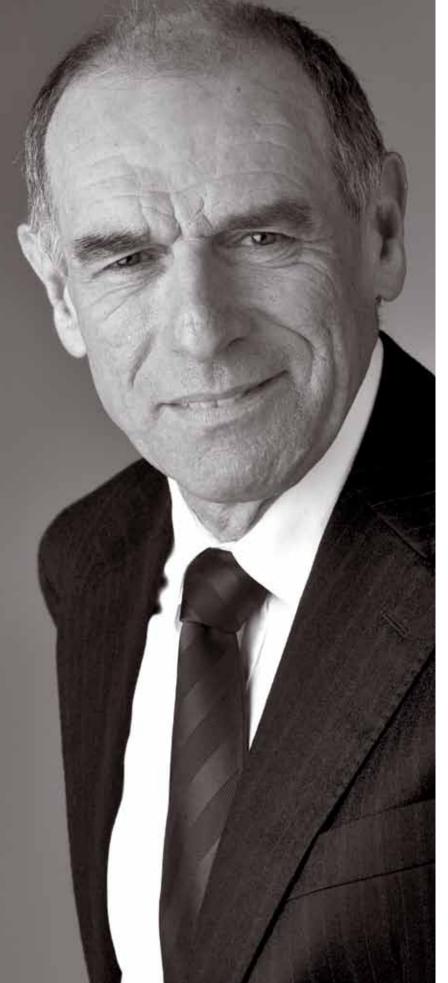
How is 2012 shaping up?

Our order book rose nearly 27% in one year and amounts to 15 months of average activity, half of which is to be carried out in 2012. This solid performance gives us good visibility and points towards a further year of growth in 2012. Of course we are aware that the economy will be sluggish in some European regions. But we have an "all-weather" business model that enables us to hold our own in stagnant markets and expand in those that are growing. And then, we see a period of economic uncertainty as a challenge to be met, from which we will emerge even stronger.

Beyond the immediate business situation, what are your plans for VINCI Construction?

We plan to make the most of our Group by building on our strengths. VINCI Construction has an exceptionally diverse range of teams and expertise. We are already networking these teams and combining this expertise on a large number of projects. But we can take this to a new level. We can generate further cooperation between our companies, upstream of bidding procedures, to work out solutions that are optimised by product line and capitalise on our experience and our many project references.

We can make progress in regions of the world – such as Africa and Asia – where our companies have not, so far, been coordinating their activities, and put together the turnkey solutions that the major public and private sector clients are calling for. We can expand the collective intelligence that we make available to our clients, as design-build projects become more and more widespread, by intensifying the synergies between our engineering



divisions. This way we will demonstrate that VINCI Construction is more than the sum of its parts.

In conclusion, how would you describe your frame of mind going forward?

We are moving forward with confidence, determination and modesty. We have confidence in VINCI Construction's soundness and potential within the VINCI Group – a global benchmark due to its business model and sustained performance. Meanwhile, as leaders we have a duty to be demanding of ourselves. We will maintain our competitive edge if we are able to

"As leaders we have a duty to be demanding of ourselves."

constantly seek ways to make progress towards excellence and the humility to challenge ourselves as often as we need to, and by working even more closely together. This will enable us to make the most of this group. We will create more added value to serve our

customers, and fuel the engine of our development with an inexhaustible supply of energy: the energy of the men and women that make up VINCI Construction, driven by a common vision and a common determination to succeed, together.

Management team

Dominique Bouvier Chairman and Chief Executive Officer, Entrepose Contracting

Hervé Meller Director, Human Resources, VINCI Construction André Hubard Director, Central Europe subsidiaries

John Stanion Chairman, VINCI PLC **Philippe Chavent** Chairman, Sogea-Satom



Bernard Lenfant Chairman, VINCI Construction Dom-Tom **Joseph Attias** Director of Engineering, VINCI Construction

Bruno Dupety Chief Operating Officer, VINCI Construction and Chief Executive Officer, Soletanche Freyssinet

François Ravery Chief Administrative and Financial Officer, VINCI Construction **José-Michaël Chenu** Chief Operating Officer, VINCI Construction France Renaud Bentégeat Managing Director, CFE, Chairman of the management committee of DEME Manuel Saez-Prieto Director of Communications, VINCI Construction Alain Bonnot Chairman, VINCI Construction Grands Projets



Jean Rossi Chairman, VINCI Construction Jérôme Stubler Chief Executive Officer of Freyssinet and Terre Armée, Chairman of Nuvia

Gérard Bienfait Chairman, VINCI Construction France Raoul Dessaigne Executive Vice-President, VINCI Construction VINCI Construction is France's leading construction company and a major global player. Its companies, over 700, employ 67,000 people in more than 100 countries.

VINCI Construction's standout features, eclipsing its size, are its:

► diverse array of capabilities in building, civil engineering, hydraulic engineering and contracting-related specialities;

► business model made up of three business areas forming an excellent fit: network of subsidiaries with strong local roots; specialised civil engineering subsidiaries serving global markets; and a division dedicated to the management, design and execution of complex projects;

► management model combining decentralisation, networking, synergies, local manager empowerment and responsibility, focus on people and responsive organisation.

As a business line of VINCI, the world's leading concessions and construction Group, VINCI Construction exemplifies the Group's entrepreneurial culture.



Networks of local subsidiaries

VINCI Construction France VINCI Construction Dom-Tom CFE, Belgium VINCI Construction UK Central Europe subsidiaries Sogea-Satom, Africa



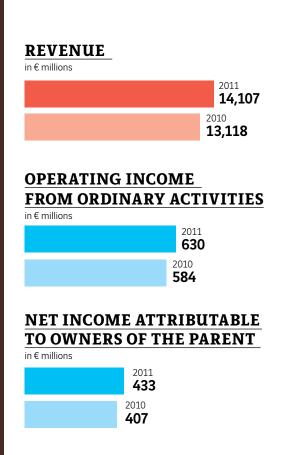
Specialised civil engineering

Soletanche Freyssinet Deep foundations and ground technologies, structures, nuclear Entrepose Contracting Oil and gas infrastructure DEME Dredging and marine works

Management and execution of complex projects

VINCI Construction Grands Projets VINCI Construction Terrassement Dodin Campenon Bernard

2011 key figures

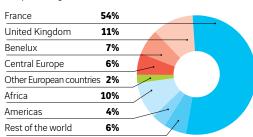


<u>REVENUE BY</u> BUSINESS ACTIVITY

as a percentage		
Building	43%	
Civil engineering	24%	
Specialised civil engineering	21%	
Hydraulic engineering	7%	
Other activities	5%	

<u>REVENUE BY</u> GEOGRAPHICAL AREA

as a percentage



CERTIFICATION

60% of revenue covered by ISO 14001 certification 75% of revenue covered by ISO 9001 certification €2.5 billion worth of projects covered by environmental certification (HQE, BREEAM, etc.), i.e. 17.4% of revenue

over 23,000 worksites

SOLIDARITY PROJECTS

of the Fondation VINCI pour la Cité supported by

50 VINCI Construction sponsors €613,000 in grants awarded

to these 37 projects

HOURS OF TRAINING

of which 292,741 hours of health and safety training







11.6% women

EMPLOYEES 4 of which in France

TAKING TEAMWORK TO A NEW LEVEL"

INCI Construction companies owe their strength to their ability to focus their organisations on people and projects and to network their expertise and their teams. The VINCI Group's goal is to build on this model – to bring its skills together more broadly, to create new links and to invent new ways of working together. In this way, VINCI Construction will be able to develop the turnkey solutions that its customers expect and to make the most of its human resources and its wealth of expertise.

BUILDING COMPREHENSIVE SOLUTIONS

VINCI Construction companies are intensifying synergies among themselves by moving beyond one-off cooperation in response to calls for tender and joining forces to put together bids, create joint ventures and work together to gain a foothold in new markets. This enables them to meet their customers' need for optimised comprehensive solutions. For example, the new VINCI Environment UK company, which combines the specialised expertise of VINCI Environnement and the local roots of VINCI Construction UK, was selected to build three turnkey waste-to-energy facilities in the United Kingdom. In oil and gas infrastructure, Entrepose Contracting and VINCI Construction Grands Projets, which handed over three LNG tanks in Rotterdam (the Gate project) in 2011 and early 2012, won a contract to build four further tanks in Australia (Wheatstone project), and worked together and with the Group's specialised business activities to put together comprehensive solutions for the construction of gas terminals. Similar coordination is employed to address the new oil and gas markets in Africa, the major hydraulic and environmental projects in Central Europe, and the large turnkey building projects in the international market

In the same spirit, VINCI Construction is developing "pivot clubs" that bring together people from its different entities to work on a chosen topic. Several of these discussion groups were recently set up or expanded in the field of underground works, mining structures or renewable energies.

STEPPING UP NETWORKING OF ENGINEERING RESOURCES

Each VINCI Construction division has one or several in-house design offices - either centralised structures, as in major projects and specialised business lines (foundations, structures, marine works, etc.), or regional structures as within VINCI Construction France. This existing organisation was reinforced by the acquisition in 2011 of the Structures Ile-de-France design office, which has about 100 employees. By networking all these resources, VINCI Construction is able to offer very substantial design studies capabilities and very broad expertise. For example, by the end of 2011, six months after the contract for the SEA Tours-Bordeaux high-speed rail line was signed, more than 850 employees of construction consortium COSEA, including 350 from VINCI Construction, were already working to prepare the project. The reinforcement of these resources notably through the integration of specialised expertise in such areas as geo-technologies and technical building trades - and the intensification of synergies among the Group's engineering teams are a major development driver that boosts VINCI Construction's ability to design, execute and coordinate turnkey projects and keep pace with the trend towards increasingly comprehensive and complex projects.



While cultivating each individual company's responsiveness and ability to provide local service, VINCI Construction develops the common tools and technical culture that are the common language of all its entities and foster collaborative working methods. For example, VINCI Construction intends to progressively expand the use of the digital mock-up, so far primarily used on large projects, to the company as a whole. Modelling and databases covering all project information, made available to all parties working on the project under the supervision of the general contractor, facilitate integration of engineering and production and achieve a range of goals in one fell swoop: facilitating information flow within organisations, pooling data that is always up to date, adapting to the many technical changes that occur in the course of a project, automatically recalculating project phasing when one aspect of construction changes, etc. At Group level, discussion is facilitated across all companies as the interoperability of information systems and the deployment of the new collaborative tools and media make it possible to create new communities and create multiple synergies on an international scale.



ECONOMIC PERFORMANCE

ALOCAL AND GLOBAI MODEL



VINCI Construction steadily pursued the return to growth that began in 2010, boosting revenue 7.5% to €14.1 billion in 2011. With its networks of local entities, speciality business activities and entities dedicated to major projects forming an excellent fit, VINCI Construction operates in about 100 countries. **Expanded** synergies between the business line's companies further boost the resilience of its business model.

A NETWORK OF LOCAL SUBSIDIARIES

MAINLAND FRANCE

VINCI Construction France recorded a strong recovery in its business activity in 2011. Following a two-year contraction, revenue rose nearly 13% to €6.1 billion.

In the building sector, which accounts for over 70% of its revenue, VINCI Construction France made the most of its broad market coverage. The residential activity made substantial gains, mainly in public housing and to a lesser degree in private-sector residential building. In the public building segment, overall volume was on track. In these markets, in which the average size of projects is increasing, VINCI Construction France's companies are able to leverage their substantial engineering and production capabilities as well as their ability to manage projects on a general contracting basis, as the large number of hospital, stadium and cultural building projects initiated or continued during the year demonstrated. In private-sector building, activity was boosted by a large number of medium-sized projects throughout the country and by major projects carried out primarily in the Greater Paris area.

In the civil engineering sector, which accounts for nearly 20% of VINCI Construction France's revenue, activity held steady. In addition to the many projects carried out by its regional companies and specialised subsidiaries, VINCI Construction France worked on a number of operations in synergy with VINCI Construction's major projects division. These included the South Europe Atlantic (SEA Tours-Bordeaux) high-speed rail project, for which preparatory work got under way in 2011 and which will generate an increasing volume of activity in coming years.

In hydraulic engineering works, VINCI Construction France companies, operating in mature markets, offset the decline in traditional pipeline works by focusing on the market for major water treatment facilities, in which they provide both civil engineering and process solutions. **In speciality business activities,** VINCI Construction France began major asbestos removal, demolition and clean-up projects, experienced very strong growth in its wood segment and continued its property development and historic monument activities.

OVERSEAS FRANCE

VINCI Construction Dom-Tom boosted its revenue 2.5% to €0.5 billion. Business volume held up well, bolstered by public orders in the building (healthcare, education, social housing) and water treatment sectors and by the many local projects that make up the core business of the local subsidiaries. The latter also worked on major projects, some in synergy with VINCI Construction France and VINCI Construction Grands Projets.

BENELUX

CFE (excluding its subsidiary DEME, in which it owns a 50% holding), in which VINCI Construction holds a 46.8% interest, generated revenue that was slightly up (1.7%, to €0.9 billion). The diversity of CFE's business activities and markets enabled it to weather the ongoing economic recession relatively unscathed. Business was good in the property development and multi-technical (electricity, climate engineering, maintenance, rail) sectors, offsetting the sluggishness of the building markets. In the latter sector, CFE diversified its international activity, winning new contracts in Chad together with Sogea-Satom and in Nigeria. The multi-technical business activity expanded further in Hungary and Turkey. In civil engineering, major projects carried out with VINCI Concessions helped support business volume.

UNITED KINGDOM

VINCI Construction UK increased its revenue 7.2% to nearly ≤ 1.3 billion thanks to its positioning in market segments that remained buoyant. In building, the company offset the decline in its traditional regional markets with strong business activity in the hospital sector. Activity was also strong in the retail building sector. In civil engineering, VINCI Construction UK's strong positions in the urban transport infrastructure and underground station sectors enabled it to take part in the major works programme

2011 revenue in€millions









Saint-Denis, France Turnkey Cité du Cinéma project

15

The Cité du Cinéma project, developed by VINCI Immobilier and built on a general contracting basis by Bateg (VINCI Construction France), brings to life the concept pursued for more than 10 years by film producer and director Luc Besson – the creation of a complex in which films can be made from start to finish. The complex has nine sets, a 500-seat screening room and specialised film production facilities. Close cooperation with the developer and the programme manager from the project's inception and throughout the works made it possible to optimise design, costs and lead times and to adjust to changes in the brief. Excellent coordination with the VINCI Energies fitting and finishing companies was also a major success factor. Completed in 24 months, the project was handed over on schedule beginning of April 2012. ► undertaken by the London authorities. A large number of projects are also in the development stage in the nuclear civil engineering sector, in synergy with VINCI Construction Grands Projets and Soletanche Freyssinet, and in waste-to-energy facilities under a joint venture set up by VINCI Construction UK and VINCI Environnement.

CENTRAL EUROPE

In the Central Europe subsidiaries, overall business volume contracted 3.6% to \in 0.5 billion as markets suffered the effects of the recession and the credit crunch restricted financing for infrastructure projects. The situation varied, however, from one country to another. It remained on track in Poland, where Warbud was buoyed by the preparations for the 2012 European Football Championship, especially in motorway bridges and tunnels. In the Czech Republic, the economic downturn, compounded by political instability, resulted in a substantial decline in business volume. In Slovakia, the R1 expressway, built under a concession by the VINCI Group, boosted activity.

AFRICA

Sogea-Satom continued to grow in a business environment that remained buoyant. Less affected by the global downturn than those of the other continents, African markets benefited from an increase in private-sector investments that offset the reduction in major international donor financing. Against this backdrop, Sogea-Satom's revenue rose 10% to €0.9 billion. Business remained brisk for Sogea-Satom's main business activities: earthworks and roadworks, which make up nearly 60% of revenue, civil engineering (especially port works) and hydraulic engineering. The increasing volume of projects carried out with other VINCI Construction entities helped sustain this momentum. Other VINCI Construction divisions also operate in Africa in the specialised civil engineering, building, oil and gas infrastructure and major projects sectors. Across all subsidiaries, revenue generated by VINCI Construction in Africa came to nearly €1.4 billion.





Port of Cotonou, Benin Local roots and specialised expertise

The Port of Cotonou extension project, completed in 2011, exemplifies the excellent fit among VINCI Construction's companies.

While Sogea-Satom contributed its familiarity with the local environment and operated as a general civil engineering contractor, several subsidiaries also provided specialised expertise: Soletanche Bachy in deep foundations, Dredging International and EMCC in dredging and underwater works, and Dumez-Maroc in port works. Following handover at the end of 2010 of an extension of the breakwater at the entrance to the port (works package 1), the project continued in 2011 with the construction of a 700 metre long diaphragm wall quay for a draught of 12 metres (works package 2). The success of the first stage also led to a third works package (3A) being awarded to the construction consortium to build the port backfill. 2011 revenue in € millions

520 Central Europe subsidiaries

861 Sogea-Satom

675

2,245 Soletanche Freyssinet

SPECIALISED CIVIL ENGINEERING

SOLETANCHE FREYSSINET

Soletanche Freyssinet further accelerated the growth it recorded in 2010, building on the momentum of its three major business activities – ground technologies, structures and nuclear engineering – to boost its revenue 11% to €2.2 billion in 2011. In each of these areas, the group's specialised expertise makes it an international benchmark and enables it to operate in some 100 countries. Soletanche Freyssinet took advantage of strong market growth in Latin America and Oceania, while maintaining its positions in Europe.

In deep foundations and ground technologies,

Soletanche Bachy consolidated and accelerated its return to growth, increasing its revenue 12%. A strong upturn in volume in the United Kingdom, driven by several major contracts signed with other VINCI Construction entities, and steady volume in France, Poland, Latin America and the United States, more than offset the decline recorded in the Middle East, Africa and the other European markets.

Menard (ground consolidation) recorded the strongest growth (18%) within Soletanche Freyssinet. It was driven by large projects in the Middle East, Poland, Turkmenistan, Indonesia, Australia and the United States.

Terre Armée (retaining structures and precast segment tunnels) held steady; strong business activity in the United States, Canada, Australia and Asia made up for the more sluggish conditions in a number of other markets, notably Italy and Pakistan.

In structures, Freyssinet recorded growth (9%) driven by increased business volume in the Asia-Pacific region (primarily Australia), Central Europe (Poland, Russia), France and the United Kingdom. Strong sales and marketing activity during the year resulted in a substantial increase in order intake.

In nuclear, Nuvia again recorded strong growth (15%) driven by brisk activity in its two main markets, France and the United Kingdom. Nuvia also initiated first operations in Sweden and India and signed several contracts with China.

OIL AND GAS INFRASTRUCTURE

Entrepose Contracting recorded an 18% decline in revenue to €0.7 billion, against the backdrop of political and economic upheaval that resulted in a total or partial halt to ongoing projects in Tunisia and Libya and the cancellation or postponement of investments by contracting authorities. Entrepose Contracting's wide diversity of expertise and geographical areas of operations helped mitigate the impact of the unstable environment. A case in point is the high-potential pipeline market, where subsidiary Spiecapag is a world benchmark. Business was very brisk in the activity relating to the start of production at gas and oil fields in Algeria. Lastly, in cryogenic storage tanks for liquefied natural gas (LNG), the combination of projects carried out by Entrepose Contracting alone and those carried out in synergy with other Group entities helped boost business activity.

DREDGING

DEME⁽¹⁾ maintained a high level of revenue at €1.8 billion, and carried out works in some 50 countries around the world, using its fleet of 90 large dredgers and 200 support ships. Apart from major port works, in which business was brisk, the company continued to expand its operations in the buoyant offshore wind farm and energy facility market. DEME is preparing to expand into offshore mining activities and has set up a joint venture with the Dutch IHC company to offer comprehensive solutions in this market. (1) The company is consolidated under the equity method.

MANAGEMENT AND EXECUTION OF COMPLEX PROJECTS

The companies making up this division bring together complementary expertise in major project design, execution and management. Their combined expertise was much in evidence in the preparations for the SEA Tours-Bordeaux high-speed rail line, for which VINCI Construction is the main player *(see box)*.

VINCI Construction Grands Projets experienced a contraction of its revenue – by nearly 8% – to €0.5 billion. The large amount of work currently in the preliminary and design studies phases generated relatively little revenue but a significant 20% increase in the order book over the year. In addition to sustained activity in underground works, VINCI Construction Grands Projets expanded its operations in the water treatment sector, with additional contracts in the Dominican Republic, Djibouti and Jamaica, and confirmed the upturn in its international building activity with several sizeable orders in Turkmenistan and Malaysia. **VINCI Construction Terrassement** generated revenue of €0.4 billion, up 33%. Business was especially buoyant in France, where major rail projects were added to a steady volume of regional works. Outside France, the company also expanded internationally thanks to its work with Sogea-Satom in Africa.

Dodin Campenon Bernard increased its revenue more than 15% to €0.2 billion. The company worked in synergy with other VINCI Construction entities on a large number of bridge and tunnel projects in mainland France and Reunion Island.





2011 revenue in€millions

515

VINCI Construction Grands Projets

377 VINCI Construction Terrassement

196

Dodin Campenon Bernard



SEA Tours-Bordeaux HSL, France Marshalling forces for a major project

By the end of 2011, just six months after the contract was signed, over 350 VINCI Construction employees were already working on the SEA Tours-Bordeaux high-speed rail line project, the largest infrastructure concession project currently under way in Europe, which is being carried out by a VINCI-led consortium. The design and construction of the 302 km line – to be completed in 76 months – is the responsibility of the COSEA consortium led by VINCI Construction, the main player in the project, and also comprising the VINCI's Roads and Energy business lines as well as specialised rail engineering and equipment companies. Within VINCI Construction, the project will leverage synergies between the major projects division's engineering and production resources (VINCI Construction Grands Projets, VINCI Construction Terrassement, Dodin Campenon Bernard) and VINCI Construction France's regional subsidiaries. All told, 4,500 people will be working on earthworks and civil engineering at the height of activity.

well-filled order book at the end of 2011, up nearly 27% over the previous year, holds out the prospect of further revenue growth in 2012. After recovering well in 2011, business in France is expected to grow. In other European markets, business should hold up well even in tougher economic conditions thanks in particular to synergies both within VINCI Construction and with the other Group business lines. Outside Europe, specialised civil engineering and major projects should continue to flourish, especially in emerging economies, where the Group's market share is small and growth prospects are huge. In the longer term, potential demand in both mature and emerging economies will combine to sustain the momentum at VINCI Construction. Mature economies need to modernise their infrastructure extensively and improve environmental efficiency, while emerging economies are poised to launch a wave of new construction projects. Robust demand is expected in all of VINCI Construction's main markets, from transport and energy infrastructure to urban development, water supply networks and treatment systems, public amenities such as hospitals, schools and leisure facilities, residential buildings, and new-generation buildings for the residential and service sectors. Another factor in VINCI Construction's favour is the growing demand for comprehensive and ever-more complex project packages. Its proven expertise in managing large projects and ability to harness all of the requisite technical expertise in-house should reinforce its competitive edge in such projects, further bolstered by the drive to leverage internal synergies and synergies with the VINCI Group.

NOOTTUC

SUSTAINABLE DEVELOPMENT

CREATING SHARED VALUE



Because all-round performance and success can only be judged in the long term, VINCI Construction's companies aim to make the most of their teams, contribute to regional economic and social solidarity, protect the environment and innovate to serve their customers' projects.

SOCIAL RESPONSIBILITY

PRINCIPLES

An all-round performance objective. VINCI Construction believes that success must be judged in the long term, and that performance is not confined to economic and financial results but is also measured in terms of the extent to which projects fulfil the expectations of customers and society at large, enhance and protect the environment and contribute to social development. This overall performance objective dovetails with a management model that drives the Group's development and ensures its cohesion. The model is built on decentralised organisations, autonomous operating units and empowered managers, coupled with the networking of teams and skill sets. The Group's shared values strengthen its cohesion. VINCI Construction's values of trust, respect, solidarity, the primacy of people over systems, simultaneous recognition of individual initiative and teamwork the basic principle governing worksite operations are rooted in its history and entrepreneurial culture.

Sustainable development and self-diagnosis.

For a sustainable development policy to be effective, every Group entity must take it on board within the context of its own business activity. In this spirit, VINCI finalised its sustainable development self-diagnosis questionnaire in 2011, which enables each company to assess its own performance in 15 categories relating to the workforce, the environment and social responsibility. The questionnaire is both an approach and a tool designed to help operational managers and their respective management committees work together to address the practical issues arising in each category, measure their progress and rank their priorities in line with the issues and challenges specific to their business activity. For example, VINCI Construction Dom-Tom has set itself the human resources goal of integrating more women in production and supervisory jobs a programme that resulted in the training and recruitment of seven women as formwork workers in the SBTPC subsidiary on Reunion Island.

HUMAN RESOURCES

Creation of sustainable jobs and partnerships with schools. VINCI Construction takes a long-term approach to employee relations and gives preference to creating permanent jobs whenever possible. On 31 December 2011, its companies employed 67,000 people worldwide, of whom more than 53,000 had permanent jobs. Upstream of hiring campaigns, VINCI Construction companies work with schools and employment organisations to make their businesses more attractive and put together career paths leading to qualifications. They welcome more than 3,500 students each year as interns as well as some 100 international volunteers (under the French Volunteers for International Experience programme). VINCI Construction also pursues a proactive policy of developing work-study training, with the goal of achieving 4% of the workforce under apprenticeship and contracts to formalise internal training qualifications. In total, 720 contracts of this type were signed during the year. Of the many partnerships with schools and training institutions, a few examples are: in France, the Ecole Spéciale des Travaux Publics (sponsorship of the 570 engineering students in the Class of 2012), the Ecoles des Ponts ParisTech and the Ecole Centrale in Paris (creation of a master's degree in civil engineering of major energy structures), and the civil engineering training site in Egletons; in Africa, the Dakar, Senegal Ecole Polytechnique, the Institut Supérieur de Technologie d'Afrique Centrale in Cameroon and the Institut International d'Ingénierie de l'Eau et de l'Environnement in Burkina Faso; in the United Kingdom, the Prince's Trust programme entitled "Get into Construction" (training for unemployed young people in the construction trades).

10,000

employees approximately, in France and around the world, have taken part in the Orchestra training programme since its inception. The programme facilitates the introduction of a shared approach to the business activity and the induction of new employees within **VINCI** Construction companies.





Burundi Sharing development with local communities

More than worksites, it is development projects that take VINCI Construction to Africa, where it works closely with local communities.

For example, in Burundi, 3 million people have gained access to drinking water thanks to the network built by Sogea-Satom in the Gitega region.

Some 170 kilometres of pipelines and their associated equipment (pumping stations, tanks, power lines) bring running water to houses equipped for it and create communal tapstands accessible to a broad population. Around 500 people have been locally recruited in the worksite area. In addition to technical training for worksite teams and the operators of the future pumping stations, all personnel received weekly safety training and a large-scale system was set up to raise AIDS awareness. The communities are closely involved in using the equipment, via leaders trained by Sogea-Satom to urge people to take care of the installations.

Training and development of a common culture.

VINCI Construction also acts as a responsible employer by fostering the vocational development of its employees. Workforce planning (GPEC) underpins this programme. To boost the employability of its people, VINCI Construction also offers dialogue between operational staff and employee representatives about the business line's goals so as to better anticipate changes in skills requirements. An ambitious training programme supports workforce planning. VINCI Construction's goal is to offer each of its employees a customised training plan. Training is provided primarily by internal bodies. In France, for example, the 10 Cesame (VINCI Construction France) centres and the Eugène Freyssinet centre provided 326,000 hours of training for 18,800 trainees in 2011. Synergies between VINCI Construction divisions also ensure sharing of resources. For example, the Orchestra programme, initially introduced to train VINCI Construction France operational managers in worksite preparation and organisation, has since been extended to other VINCI Construction entities (especially in Overseas France, Central Europe, Africa and the major projects activities), and adapted to the various business lines (building, civil engineering, pipelines, earthworks, underground works, etc.) to accelerate the dissemination of a common culture within the Group's companies. Similarly, the Team Grands Projets programme, devised by VINCI Construction Grands Projets to train its employees in complex project management, welcomes employees from other VINCI Construction entities at each session.

Career development and mobility.

VINCI Construction's management culture geared to empowerment and initiative encourages employee career development. A young engineer may, for example, rise to become a worksite or profit centre manager within a few years. A variety of methods are used within Group companies to foster employee induction and career development, including the Coaching Team programme at VINCI Construction France, the course combining the six-month senior-year internship and VIE internship at VINCI Construction Grands Projets, and the recruitment and training programme for African management staff at Sogea-Satom.

The VINCI Construction human resources policy also stresses international recruitment to support the international expansion of its activity. VINCI Construction also aims to develop job mobility and dovetailing of skills, as projects become increasingly comprehensive and complex and increasingly require the complementary expertise of the Group's companies. In an extension of the current intranet, web 2.0 collaborative networks and tools will boost this move.

Sustainable development

SAFETY

Management responsibility. Because the company's key focus is on people and people are its key asset, VINCI Construction's priority is the safety of its employees. The business line's ambition – and its duty as a leader – is to be a health and safety benchmark, just as it is a benchmark by virtue of the quality of its expertise and the solutions it implements. This goal translates into a health and safety policy based on strong management involvement, starting with the chairman and the VINCI Construction Management Committee, who organise dedicated seminars for the Group's health and safety officers three times a year. To ensure that all managers share the health and safety culture, safety management training specifically designed for them will be gradually introduced in all VINCI Construction divisions.

Comparing and sharing best practices.

VINCI Construction's goal is zero accidents. The goal applies to its own employees, temporary workers and employees of subcontractors working on its sites. The zero accidents objective is pursued through a myriad of actions and initiatives such as worksite orientation procedures; across-the-board application of 15-minute safety sessions; wide-scale awareness raising programmes such as the "Prevention Attitude" training taken by all VINCI Construction France employees; programmes designed for major projects employing people from a range of different countries, such as the (A)live on Site programme, in which worksite personnel are filmed in action and then shown the film and asked to comment on dangerous situations in their language (2,300 employees trained on 24 projects in 10 languages by the end of 2011); and near-miss analysis. The ramp-up of the safety management policy aims to identify best practices among all these activities and to better share them. This collective endeavour will make use of the broad diversity of business activities and areas of operation within VINCI Construction. It takes inspiration from sectors with a strong safety focus such as the oil and gas, mining and nuclear industries.





QDVC (a joint Qatari Diar -VINCI Construction Grands Projets company) employs workers of some 20 different nationalities on its worksites in Qatar.

To enable them to share a common set of technical skills and safety rules, QDVC set up a worksite school in 2011. Its teaching methods are based on visual and hands-on learning techniques. One example is an exercise in which equipment tha

techniques. One example is an exercise in which equipment that has been improperly assembled is shown to the trainees, who are then asked to identify the mistakes made. The worksite

school, the first of its kind in Oatar, trained 350 workers in 2011. In 2012 the school will offer literacy and basic English classes, as well as worksite organisation and production training for the most highly qualified workers. The Qatar worksite school is part of Skill Up, a global project run by **VINCI Construction Grands** Projets. The programme will be progressively introduced at all its worksites, along the lines of the El Teniente project in Chile, where an initial training session for 18 workers was recently completed.

DIVERSITY

Fostering equal opportunities. VINCI's corporate culture focuses on bringing together people from a wide variety of backgrounds with a broad range of experience. In this spirit, we pursue a proactive equality policy rooted in our principles of combating all types of discrimination in hiring and labour relations - particularly discrimination against women, disabled people, older people and people of immigrant background - and fostering a work environment in which all employees, in all their diversity, have an opportunity to make the most of their abilities and help the company achieve its goals. Managers implement this policy and disseminate these principles throughout the organisational structure. To support them in this endeavour, a network of diversity managers and management training in equality were set up within the VINCI Group in 2011.

INTEGRATION

Contributing to regional and local social and economic development. As a result of their business activities, locations and culture, VINCI Construction companies have strong roots in the regions where they operate. Working as partners in local development, they contribute to the creation of wealth and employment, both directly and indirectly through joint contracting and subcontracting. They also help contribute to regional economic and social solidarity by helping to integrate people alienated from the labour market by employing them on Group worksites. By way of an example, for the SEA Tours-Bordeaux high-speed rail line project, VINCI has committed to reserving 10% of the jobs in earthworks and civil engineering for people undergoing social integration programmes, which will involve around 400 workers.

Creation of a dedicated structure. To support VINCI companies in their social integration efforts, with special attention to the application of the social clauses in public procurement contracts that provide for the inclusion of people in difficulty, VINCI created ViE, a "hybrid business" undertaking, as an interface with the social economy structures that hire people under integration programmes and provide them with initial training. ViE's expertise and dedicated tools help operating entities to develop solutions that combine economic and social performance, transforming a requirement into value-added. As of 31 December 2011, ViE had coordinated 700,000 hours of integration in the Greater Paris area and 150,000 in the Nord-Picardie region, and 400 people in integration programmes had received support on VINCI Group worksites.

CIVIC ENGAGEMENT

Supporting and encouraging employee engage-

ment. In line with our humanist beliefs and solidarity values, VINCI Construction encourages its companies and employees to support public interest causes related to their activities. Such civic engagement is primarily focused on projects supported by the Fondation VINCI pour la Cité and its Cité Solidaire programme that help the unemployed find work and create social bonds.

Since its inception in 2002, the Foundation has provided 978 solidarity projects with funding and skills support through the sponsorship of Group employees. In 2011, €1.96 million in Foundation grants were awarded to a total of 118 outreach projects sponsored by 147 employees. The Nadace VINCI Foundation in the Czech Republic supports about 10 projects per year. In Africa, the ISSA (Sogea-Satom Initiatives for Africa) programme supports outreach projects initiated and managed by the Sogea-Satom agencies and worksite teams. In addition to health and education projects (construction of schools and healthcare buildings), ISSA supports the creation of micro-enterprises that drive economic development and generate employment for local communities. In 2011 ISSA supported 12 projects, including the creation of a crafts workshop in the Fulani village of Tiesserola, Mali.

ENVIRONMENT

Creating environmental value and limiting the impact of business activity. VINCI Construction's business activities are central to the challenges of green growth. By investing in eco-design technologies, the Group's companies are able to develop solutions that improve the energy and climate performance of buildings and infrastructure. Companies also strive to reduce the impact of their activities by implementing action plans aimed at cutting consumption of natural resources and reusing and recycling waste wherever possible. For example, VINCI Construction France created the Attitude Environnement label that is now being applied to all worksites: teams make a commitment to 10 criteria (waste sorting, pollution limitation, worksite and adjacent terrain cleanliness, etc.), compliance with which is checked by an environmental expert who approves the award of the label. Certification processes (ISO 14000 and similar), which cover 60% of VINCI Construction's revenue, also help to limit environmental impact, as does the development of environmental training and awareness raising (9,326 hours in 2011).

0.19 is the workplace accident frequency rate achieved by VINCI Construction UK in 2011, down more than 30% from the previous year. The Anglo-Saxon approach to safety management, which makes it part and parcel of project management, is a benchmark in the Group-wide improvement programme undertaken.

▶ Eco-designing buildings and infrastructure.

For several years now, VINCI Construction companies have been developing eco-design tools incorporating life cycle analysis (LCA). One example is the CO₂NCERNED system. Designed for large projects with a focus on transport infrastructure, it is used to assess the carbon footprint of each part of a project and its alternative solutions and thus provide guidance in working with the contracting authority to make design choices. Specific eco-design tools have also been developed by Soletanche Freyssinet (PIC and PRISM programmes), VINCI Construction Grands Projets (CO2 CRETE Impact and GEStim software packages) and VINCI Construction France (Equer software) to assess the energy performance of buildings. In this latter area, Oxygen, which includes energy and environmental performance commitments, was applied for the first time on projects in 2011. VINCI Environnement designed the EcoSave™ programme to ensure limited environmental footprint and optimal operation of facilities.





France Motorway and biodiversity protection

On the worksite of the A89 in the direction of Lyon, VINCI Construction Terrassement worked with contracting authority ASF (VINCI Autoroutes) on an exceptional system designed to protect watercourses used by the white-clawed crayfish and the fario trout, two protected species. Ditches and settling ponds surround the earthworks area, temporary water treatment separates mud by flocculation, and so on.

The system ensures that in case of rain the muddy worksite water will not run off into the watercourse. It was designed to withstand 10-year rainfall.

INNOVATION

R&D: nearly 1,500 active patents. With a budget of €26 million in 2011 and 140 researchers (FTE), VINCI Construction is in the vanguard in its sector when it comes to research and development. VINCI Construction companies are taking part in research programmes that involve their own teams, their network of partners and young PhD students doing their thesis within Group teams. Ongoing research topics include early cracking of reinforced concrete structures (second thesis associated with a testing programme) and cracking in solid parts (national CEOS.FR project). In an endeavour more directly related to their activities and the expectations of their customers, VINCI Construction teams are also developing their own innovations to constantly enhance their offerings; the products and processes emerging from the innovation process gave rise to 1,476 active patents at the end of 2011.

Fostering eco-design research. The Chair in the eco-design of building complexes and infrastructure was created in 2008 by VINCI and three ParisTech engineering schools (Mines, Ecole des Ponts and Agro) in a move designed to promote the inclusion of eco-design concepts in the training of future generations of engineers and to develop measurement and simulation tools as decisionmaking tools for urban planners and developers. The work carried out in 2011 notably included dynamic life cycle analysis of buildings and infrastructure, reliability of environmental databases and conservation of urban biodiversity. The Chair also initiated research work on the design and rehabilitation of eco-neighbourhoods as part of the European Athens programme.

Increasing participative innovation. In line with its decentralised management model, VINCI develops its potential for innovation by encouraging concrete initiatives by its companies and teams in the field. A highlight of this participatory momentum is the VINCI Innovation Awards Competition, held every two years and open to all employees. The 2011 competition drew a large number of participants, with 133 teams representing a total of 5,100 employees submitting 1,717 entries. VINCI Construction entities were very active and achieved the highest participation rate: they submitted 806 innovations or 47% of all projects. The quality of the projects that won regional and then the final competition prizes *(see opposite)* is proof positive of the Group's innovation capabilities.

VINCI 2011 Innovation Awards Competition The VINCI Construction innovations that won prizes in the final

GRAND PRIZE / Polymer muds as drilling fluids / Soletanche Bachy.



Soletanche Bachy carried out two years of research on replacing bentonite muds with polymer muds. Polymer mud has a number of advantages:

- environmental it can be easily destroyed at the worksite;
- economic it reduces the volumes required by 50 to 75%;
- technical- it makes it possible to carry out operations that would be difficult or impossible with bentonite muds).

SUSTAINABLE DEVELOPMENT PRIZE / Notil: trawling for marine pollution / Nymphea Environnement.



To supplement the heavy equipment deployed following an oil spill, Notil (Nymphea Oil Trawler Instant Launch) is a lightweight (50 kg) floating net system that is self-deploying and thus easy to use. It can simply be towed behind a boat to recover up to 10 tonnes of hydrocarbons.

BREAKTHROUGH INNOVATION PRIZE / **3D: another dimension for building worksites** / Petit, Campenon Bernard Management, GTM Bâtiment, Dodin Campenon Bernard.



In 2008, VINCI Construction was named general contractor for the project for the Fondation Louis Vuitton pour la Création. Given the complexity of the structure, it was necessary for all involved to be able to share data from the development phase. The option chosen was to use a 3D design software package and apply the "digital model" method, making it easier for the different players to understand the project.

EQUIPMENT AND TOOLS PRIZE / Trench shoring with slides – high-performance protection at utility line crossings / SNEC.



On pipeline worksites in the urban environment, the presence of utility networks is an obstacle to installation of protective shoring to prevent the excavated trench walls from collapsing onto people working in the trench. The solution found, which combines a single-piece prefabricated trench box with sheetpile guides, complies with all standards and regulatory requirements.

SPECIAL WORKING CONDITIONS PRIZE / Hunting down vibrations – calculating real exposure values to control risks / Sogea Est.



Regulations set maximum thresholds for employee exposure to vibrations, but the data provided by equipment manufacturers does not factor in the real exposure of employees under normal working conditions. The company acquired the necessary equipment (disk to be placed under the device, gloves fitted with sensors) to carry out measurements and uses this data to prepare the worksite (choice of tools).

SPECIAL EQUIPMENT PRIZE / The new Sahel head and neck scarf – new-design headgear compatible with the use of a hard hat / Sogea-Satom Tchad.



Long scarves *(chech)* are worn on the head in sub-Saharan regions as protection against severe weather conditions, but the scarves are not always compatible with protective hard hats. A neck protector was added to the 1.5 metre long scarf, together with a padded headpiece that fits inside the hard hat and is attached to the sides by Velcro strips. Locally manufactured to create jobs, the new equipment is used on all Sogea-Satom sites in Chad.

2011 BUSINESS REPORT



OFFICE BUILDINGS

VINCI Construction France worked on several large projects in the Greater Paris area in 2011. In La Défense, its companies continued the refurbishment of the Eqho (formerly Descartes) and Europe towers and started construction of the new 37-storey, 54,000 sq. metre D2 tower. In Saint Denis, its work with VINCI Immobilier resulted in a new major order, following the Cité du Cinéma project handed over beginning of April 2012 (see page 15): VINCI Construction France will be building the future SFR headquarters as general contractor. The four-building complex with a total surface area of 133,000 sq. metres will accommodate 8,500 workstations and be built in two phases. The first phase, with a value of €200 million, will be handed over at the end of 2013. VINCI Construction France also completed the second phase of the 90,000 sq. metre Korus project in Suresnes and the structural renovation of a 17,500 sq. metre office building in the Avenue Kléber. It also won a 36,000 sq. metre order for the T8 complex in the Paris Rive Gauche development zone. The main operations carried out in the regions included the 15,250 sq. metre Velum building in Lyon and the Quais d'Arenc project in Marseille. The latter will ultimately involve construction of four buildings, including three high-rises, in the Euroméditerranée district, where the Group has already built the CMA-CGM tower.

In Monaco, VINCI Construction France and Soletanche Bachy continued work on the Odéon tower, the Principality's tallest structure *(see box opposite)*. The two companies are also working in a consortium to carry out the earthworks, retaining structure and structural works for the Teotista tower comprising six underground levels and 19 storeys. • New 12,000 sq. metre headquarters of the Société Nationale des Produits Pétroliers du Niger in Niamey.

• In Kuala Lumpur, launch of work on the 185,000 Berjaya Central Park complex, which includes a nine-storey podium and a 48-storey high-rise.

 Park Inn Brussels
Midi Hotel
(142 beds) in Belgium, handed over in 2011.

• New Opéra restaurant in Paris, which has futuristic decor contrasting with the Second Empire architecture of the Paris Opera building (Palais Garnier). **In the United Kingdom,** VINCI Construction UK completed work on the new BBC studios in Bristol and Cardiff and won the contract to build the head office of the New Look company in the southern town of Weymouth.

In Niger, Sogea-Satom handed over the 12,000 sq. metre headquarters of the Société Nationale des Produits Pétroliers du Niger in Niamey.

VINCI Construction Grands Projets won two major orders in the international market: the government building in Ashgabat, Turkmenistan, and the Berjaya Central Park complex in Kuala Lumpur, Malaysia. The latter has a total surface area of 185,000 sq. metres. The first phase, with a value of €54 million, covers turnkey construction of a nine-storey podium, a 46-storey office tower and construction of a 48-storey Ritz Carlton residential high-rise.

PRIVATE-SECTOR BUILDING

In shopping centres, VINCI Construction France completed construction of the new Les Halles complex in Chambéry (a 30,000 sq. metre retail and servicesector complex over six underground levels) and began working in a consortium with Dodin Campenon Bernard on the Terrasses du Port project in Marseille. The latter is a 52,000 sq. metre shopping and leisure centre with 2,800 parking spaces, and is being built by a consortium made up of five VINCI Construction companies. The value of the works for the Group is €193 million. VINCI Construction also won the contract for Phase 2 of the 17,500 sq. metre Rives d'Arcins shopping centre in Bègles, south-west France.







Monaco Synergies both high and low for the Odeon tower

A general contracting consortium including VINCI Construction France and Soletanche Bachy is building the 48-storey office and residential Odéon tower in Monaco. Before rising to a height of 160 metres, the tower, which will be the Principality's tallest building, drives its foundations (including a 25,000 sq. metre concrete diaphragm wall surrounding the 10 parking levels) to a depth of 55 metres. By integrating the full range of capabilities required, the construction consortium was

able to offer the best technical solutions to cope with the project's many challenges. The retaining structures are commensurate with the uncertain terrain, the structural work is being carried out by the up and down method (five storeys elevation for every underground level built) and flawless organisation to optimise supply flows and reduce disruption caused by the work at the very narrow and sensitive site. At every step of the project, synergies were used to optimise performance and cost.

In Belgium, CFE is building the 10,000 sq. metre Smets Concept Store and the new 46,000 sq. metre GDF Suez headquarters in Brussels. In the United Kingdom, VINCI Construction UK worked on some 10 shopping centre construction and extension projects for Tesco. A new £80 million contract was signed with Tesco as part of the Streatham Hub project in London. In Poland, CFE Polska handed over the OBI store in Krosno and the Merida logistics centre in Wroclaw.

In the hotel market, VINCI Construction France handed over the 140-bed luxury Mandarin Oriental project in the Rue Saint Honoré and continued construction work on the future Peninsula Hotel in the Avenue Kléber. During the year it also handed over the new Opéra restaurant in Paris, with futuristic decor



contrasting with the Second Empire architecture of the Paris Opera building. In Belgium, CFE handed over the 142-bed Park Inn Brussels Midi and completed construction of the La Réserve project in the seaside resort of Knokke (29,000 sq. metres comprising 150 luxury apartments and a five-star hotel), developed in a consortium by its property development subsidiary BPI.

In the industrial sector, VINCI Construction France completed the construction of the assembly site for the future Airbus A350 XWB in Toulouse (50,000 sq. metres of assembly halls and 19,000 sq. metres of ancillary buildings); the project was completed to a particularly tight schedule thanks to a management system that made it possible to conduct the construction work and the aircraft process work concurrently. Meeting a similarly important production start date, VINCI Construction supported Renault in the construction of its new plant in Tangier, Morocco *(see box page 32).*

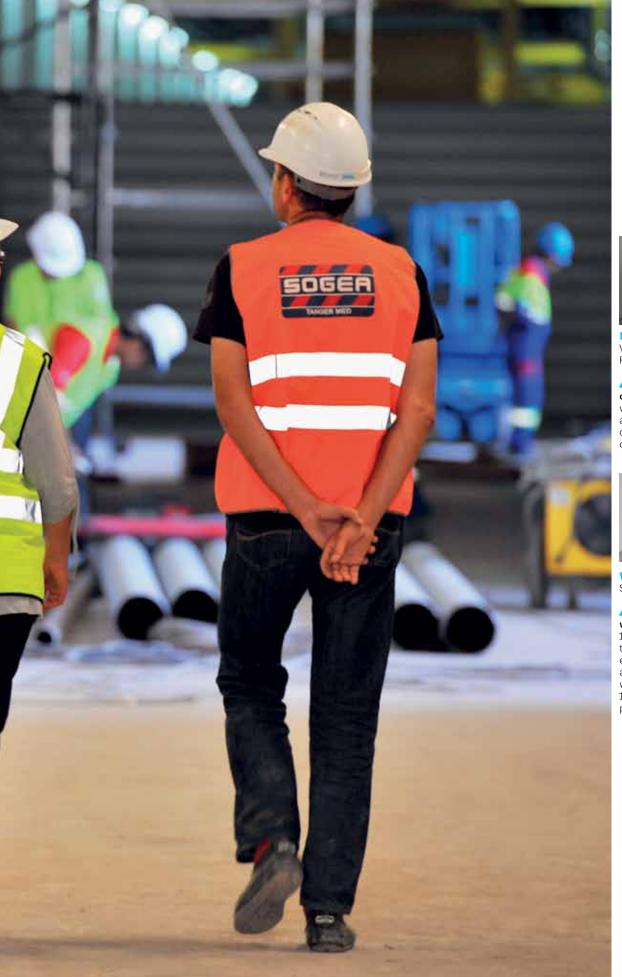
In the cultural and heritage sectors, VINCI Construction's strong engineering and construction capabilities were brought into play on the particularly innovative project designed by Frank Gehry for The Fondation Louis Vuitton pour la Création in Paris.



32

Tangier, Morocco The new Renault plant is back on schedule

When Renault encountered difficulties due to bad weather with the construction timetable for its new plant in Morocco in 2010, it called on VINCI Construction to re-think the project management, which had originally been structured in separate works packages. Working closely with the client, VINCI Construction France set up a new management structure and reorganised worksite production, notably making use of Sogea-Satom's resources. For nearly a year, the teams worked three shifts, 20 hours per day, seven days a week. Phase 1 of the project was handed over on schedule, so that production of the first vehicles can start in 2012. Based on this experience, Renault then awarded Phase 2 of the project to VINCI Construction as general contractor. Cegelec (VINCI Energies) is also taking part in the project.





Hervé Audaire, VINCI Construction France

To manage complex projects, we start by applying a simple principle: one need, one skill, one person.



33

Wilfried Thoyer, Sogea Maroc

The workforce rose to 1,000 people for the slab and civil engineering works, and concrete work reached 1,400 cu. metres per day.







URBAN DEVELOPMENT

In France, VINCI Construction France subsidiaries worked on several major urban renewal projects. As part of the redevelopment of the peninsula between the Rhône and Saône Rivers in Lyon, they completed the construction of the 164,000 sq. metre Lyon Confluence leisure, shopping and hotel complex built in a consortium with VINCI Energies. In Nantes, they began work on the Carré Feydeau project, comprising 13,000 sq. metres of shops, 6,000 sq. metres of residential space and 520 parking spaces, a project developed by VINCI Immobilier and Adim Ouest, VINCI Construction France's project structuring subsidiary. In Hautmont, as part of a comprehensive contract awarded by the municipal authorities, they are renovating 459 housing units, two schools, three neighbourhood centres and a municipal building - a total of 28 projects to be completed in three and a half years. In Paris, they are refurbishing the Halle Pajol (comprising a youth hostel, auditorium, library, shops and a covered garden) and taking part in a large project (103,000 sq. metres of residential and office space) in the Claude Bernard development zone. During the year, they also won the contract to build the Canopée des Halles in Paris.

In Belgium, The consortium headed by BPC (CFE) was selected in early 2011 as general contractor for the UP-Site project – the European capital's largest private-sector project – in the new Canal district in Brussels. Work includes construction of a 140-metre, 42-storey residential tower, four office buildings totalling 30,000 sq. metres and four residential buildings (36,000 sq. metres) over three parking levels, and has a works value for CFE of €71.5 million.

• Up-Site complex in Brussels, the largest private-sector project under way in the capital of Europe, which includes construction of a 42-storey residential high-rise.

In Boulogne-Billancourt, near Paris, one of the many buildings built by VINCI Construction in the Rives de Seine project on the former Renault site.

3 Carré Feydeau

in Nantes, a city-centre project that includes 13,000 sq. metres of shops, 6,000 sq. metres of residential space and 520 parking spaces.

13,000 sq.

metres is the surface

area of the "Canopy",

the monumental roof with plant-inspired curves that VINCI Construction will be building in Paris as part of the Les Halles renovation. The total value of the contract is \in 150 million.

HOUSING

VINCI Construction France carried out a large number of projects of all sizes for private-sector developers and clients. The largest include: in Boulogne Billancourt, as part of the Rives de Seine project, the D3a project (334 units) and the A3a works package (96 units); in Massy, the Ampère development zone (221 units, a day care centre and 272 parking spaces across five buildings); in Palaiseau, a 208-unit residence for students at the Saclav plateau. New contracts were also signed for the Entrevert eco-neighbourhood in La Valette in southern France (206 units, 143 student rooms) as part of the La Joliette urban renewal project. Business was above all intense in the public housing market, driven by extensive public spending devoted to expanding and refurbishing the existing stock. The many projects carried out over the year included: in the Greater Paris area, a social residence programme (Résid'Actifs+) notably designed for young VINCI employees in Savigny le Temple (172 studios) and two programmes carried out for Logement Francilien in Aulnay sous Bois (100 new units, 288 to be refurbished) and Rosny sur Seine (85 units); and in Denain, in northern France, the Faubourg Duchateau urban renewal project (rehabilitation of 329 apartments and single-family homes and construction of 263 new housing units).

In French Guiana, Nofrayane (VINCI Construction Dom-Tom) worked on several programmes in Cayenne, Makouria and Saint Laurent du Maroni comprising a total of 600 units.

CFE continued work in Luxembourg on the Château de Beggen residential project and in Poland on the Ocean's Four project in Gdansk, a complex of four high-rises with a total of 540 apartments, the first of which was built in 2011. CFE also extended its international coverage in Nigeria, signing a new contract to build a residential tower for an oil company.

2011 Business report BUILDING



10

Poland The Capitol Theatre in Wroclaw is rejuvenated

Warbud was awarded the contract in 2011 to refurbish and expand the Capitol Musical Theatre in Wroclaw, built at the end of the 1920s. The capacity of the auditorium will be raised to 1,000 seats in the course of the comprehensive renovation. The surface area of the site will be tripled to accommodate a series of new facilities (rehearsal room, cloakroom, restaurant, actors' club, hotel for touring performers). The works, with a value of €26 million, got under way in May 2011 and will take 18 months to complete.













France Les Terrasses du Port

Next to the docks and adjacent to the ferry terminals, one of Europe's largest shopping centres the Terrasses du Port project – is being built in Marseille. With its six underground parking levels, 600 linear metres of diaphragm walls, 301 prefounded columns, two three-storey buildings with floor areas of 33,000 and 63,000 sq. metres, the impressive project, which has been phased to avoid disrupting port activity, is to be completed within 36 months for Hammerson. For VINCI Construction, which is in charge of structural works and fitting and finishing trades, the project represents a total value of €193 million.





38

Specialised expertise Major building projects and civil engineering technologies

Soletanche Freyssinet's expertise is in demand on major building projects around the world. In 2011 the company, which specialises in deep foundations, was involved in the second phase of the Vincom Block A urban complex project in Ho Chi Minh City, Vietnam (construction of 15,800 sq. metres of diaphragm walls and 72 injection barrettes) and in the construction of the Torre Reforma high-rise in Mexico City, the country's tallest building at 244 metres (construction of all foundations and the underground car park).

Freyssinet, for its part, built the cable roof of the BC Place Stadium in Vancouver, Canada (36 masts, 72 stay cables supporting a retractable membrane) and the Gallo-Roman stadium in Puy du Fou, France (a suspended structure made up of two rings linked by radial cables supporting retractable fabric). 1 BC Place Stadium in Vancouver, Canada, Freyssinet 2 Gallo-Roman Stadium in Puy du Fou, France, Freyssinet 3 Vincom Block A urban complex in Ho Chi Minh City, Vietnam, Soletanche Bachy

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STATIS STREET

PUBLIC-SECTOR BUILDING

In France's hospital sector, activity remained very buoyant, primarily as a result of the Hôpital 2012 plan that provided funding for major investments to upgrade and extend the country's hospitals. Building on its substantial engineering and production resources and its ability to manage projects as general contractor, often in synergy with the VINCI Energies fitting and finishing companies, VINCI Construction France worked on a large number of hospital projects: in Paris, the Necker Enfants Malades hospital (new 55,000 sq. metre Laennec medical and surgical complex) and the Tenon hospital (new 25,650 sq. metre emergency, surgery and anaesthesia building); in Bron, near Lyon, the Vinatier hospital centre (construction/rehabilitation of the 333-bed adult psychiatric unit); in Marseille, the 52,000 sq. metre, 480-bed Ambroise Paré-Paul Desbief hospital and the new Assistance Publique centre; in Toulouse, the university cancer clinic (seven buildings with a total floor area of 100,000 sq. metres); in Toulon, the new 740-bed Sainte Musse hospital; in Nice, the 165,000 sq. metre, 700-bed Pasteur 2 hospital; in Eaubonne, the 30,000 sq. metre Simone Veil hospital extension and structural renovation; in Savoie, the new 72,000 sq. metre, 670-bed Chambéry hospital; in the Nord department, the 13,000 sq. metre rehabilitation centre at the Valenciennes hospital; and in the Aube, the 17,000 sq. metre, 430-bed extension of the Troyes hospital.

In the education sector, work ramped up on two major Paris area university projects under public-private partnerships (PPPs) for handover in 2012. One involved four new buildings at Paris-Diderot University (with a total surface area of 44,600 sq. metres) at the Paris Rive Gauche site; the other is the new campus of Ensta (national advanced technologies school) at the Ecole Polytechnique site in Palaiseau (one classroom and research building, metres is the surface area of the new Koutio Médipôle hospital in New Caledonia (450 rooms, 12 operating theatres), which will be built by VINCI Construction and VINCI Energies

80,000 sq.

companies. The first phase of the works has a value of €237 million.

Pierres Vives,
Montpellier
The Pierres Vives

project in Montpellier will house the Hérault departmental archives.

New hospital in Chambéry, in the Savoie department (72,000 sq. metres,

670 beds), a designbuild project.

Paris Diderot

University Construction of four new buildings with a total area of 44,600 sq. metres at the Paris Rive Gauche site.

2011 Business report BUILDING

432 housing units and a gymnasium). An order was also won to build the INSA's new IEP site in Le Havre. VINCI Construction France also continued or completed construction of new middle schools: Casarès-Doisneau in Aubervilliers north of Paris, Jean-Moulin (Phase 2) in Berck in northern France, Henri Becquerel in Saint Geneviève des Bois in central France under a 20-year PPP, the European Innovative Textiles centre in Roubaix (research buildings totalling 12,500 sq. metres) and a "second chance" centre in Meyzieu, in the Greater Lyon area.

In functional buildings, VINCI Construction France continued work on the Pierres Vives complex, which will house the Hérault departmental archives in Montpellier, and handed over two large projects: the third phase of the extension of the Midi Pyrénées regional building in Toulouse and the new rental car centre at Nice-Côte d'Azur Airport, which was built by VINCI Concessions under a PPP and is designed to optimise parking for 2,500 vehicles. The 60,000 sq. metre building has a 10,000 sq. metre roof made up of solar panels. In addition, several dozen PPPs developed on the basis of VINCI Construction France's project structuring capabilities, and covering the construction/renovation and maintenance of public buildings – primarily *gendarme* stations and nursing homes for the elderly – were under way in 2011.

Cultural and heritage building activity was in full swing. Current projects include the Cité du Cinéma near Paris (*see page 15*), the Museum of the Civilisations of Europe and the Mediterranean in Marseille (the first building of this size to use ultra-high performance fibre concrete in part of its construction), the Jacobins cultural centre in Le Mans and the Confluences museum in Lyon. In the last project, state-of-the-art techniques are being used to construct a building in the shape of a cloud covered in stainless steel and resting on a slab and monumental concrete posts, together with a reception area in the shape of a crystal.

In major sports infrastructure, the main projects of 2011 were the large stadiums in the construction or start-up phase in Valenciennes, Le Havre, Nice, Bordeaux









► and Lyon *(see box)*, notably against the buoyant backdrop of the run-up to the Uefa Euro 2016 football championships. VINCI Construction France was also chosen to build the Arena in Nanterre. Designed by architect Christian de Portzamparc, the multi-purpose structure will seat up to 40,000 spectators. It will rest on particularly complex foundations straddling an access road to the A86 motorway.

In Overseas France, activity in the education sector mainly involved the extension of the Le Moule middle school in Guadeloupe, Noumea University in New Caledonia and the Labattoir middle school in Mayotte. In healthcare facilities, two major orders were won in a consortium with VINCI Energies. One, in New Caledonia, is for the new Koutio Médipôle (80,000 sq. metres, 450 rooms, 12 operating theatres) hospital complex; the first phase of the works, with a total value of €237 million, started in January 2012 and will be handed over in 46 months. The other, in Martinique, is for a new 40,000 sq. metre building for the Fort de France teaching hospital (total contract value: €109 million).

In Belgium, CFE continued work in a consortium on two school construction/renovation projects. These were the fourth European school in Brussels (renovation of nine existing buildings and construction of a further eight) and the schools for the German-speaking community of Belgium in the town of Eupen. The latter project is being carried out under a 25-year public-private partnership signed in 2010 by CFE and VINCI Facilities, which involves 64,000 sq. metres of buildings (of which 46,000 to be built new and 18,000 sq. metres to be renovated) and their maintenance throughout the term of the contract.

In the United Kingdom, VINCI Construction UK worked on a large number of hospital projects including Royal Oldham Hospital in Manchester and the Community Hospital in Reading. Two new facilities management contracts were signed for the Coventry and Walsgrave hospitals (£270 million, 26 years) and the Queen Elizabeth Hospital in London (£65 million, 20 years). VINCI Construction UK is also qualified to take part in the national Building Schools for the Future programme and within that context it won five projects in Sheffield and Halton with a total value of £88 million. Other projects in • Toukra University, Chad, a project in two phases (11,000 and 15,000 sq. metres respectively with a value of €86 million.

2 Extension of Nouville University

in Nouméa, New Caledonia, a project completed for the 14th Pacific Games in August 2011.

• Arts & Design unit at the Middlesex University, United Kingdom, handed over in 2011. the education sector included the Arts and Design building at Middlesex University and the Bagot Street university dormitory in Birmingham. Lastly, VINCI Construction UK continued work on Phase 3 of the MoDEL programme (totalling £160 million), which covers the structural renovation of a Royal Air Force site in London.

In Chad, Sogea-Satom and CFE International handed over the first phase of the Toukra University in N'Djamena.



Stadiums Six projects handed over, under way or planned in 2011

Stadium activity was buoyant in France in 2011.

Following the inauguration of the MMArena in Le Mans at the beginning of the year, VINCI Construction France handed over the new 25,000-seat Hainaut stadium in Valenciennes with its envelope roof made up of 8.000 scales.

VINCI Construction companies also designed and are building the new 25,000-seat stadium in Greater Le Havre I (with the 1,500 sq. metres of roof-mounted photovoltaic cells that make it France's first energy-positive stadium). In the run-up to the Uefa Euro 2016 football championships, VINCI Construction is working in a consortium to build the 35,000-seat Nice Stadium ⁽¹⁾ in a consortium, with a wood structure to be built by the specialised Fargeot Lamellé-Collé subsidiary, as well as the 42,000-seat Bordeaux stadium ⁽²⁾, work on which will start at the end of 2012.

Lastly, under a public-private partnership, OL Groupe (Olympique Lyonnais) selected VINCI to build the future 60,000-seat Stade des Lumières in Lyon, for which the project was being finalised at the end of the year.



2011 BUSINESS REPORT CIVIL ENGINEERING



2011 Business Report CIVIL ENGINEERING

EARTHWORKS, TRANSPORT

In France, in the motorway sector, VINCI Construction worked on two major projects on the ASF network for VINCI Autoroutes. The first was the extension of the A89 motorway in the direction of Lyon, the new 53 km section for which VINCI Construction is carrying out 13 million cu. metres of earthworks and building about 60 bridges and tunnels. During the year, major earthworks and the first capping layers were completed. The second was the widening of the A63 motorway to a three-lane dual carriageway over a 40 km section approaching the French-Spanish border. The second phase of these works was completed and the third started during the year. In the rail sector, the highlight of the year was the start of the preparatory phase of the SEA Tours-Bordeaux high-speed rail line (see page 19). In 2011, work also started on one of the LGV Est Européenne works packages (Phase 2) between Baudrecourt and Vendenheim, a 7.5 km section on which five VINCI Construction companies are working in synergy with VINCI Energies. VINCI Construction also carried out the civil engineering works for several urban transport infrastructure projects, including, in the Greater Paris area, the preparatory work for the automation of Line 1 of the Paris metro, and built covers over the A6B motorway and the tracks of the Austerlitz station in the new Paris-Rive Gauche neighbourhood. VINCI Construction is also taking part in the renovation of the Gare de Lyon rail station in Paris, with the construction of a 4,400 sq. metre all-glass building. In the airport sector, activity will be driven in coming years by the new Grand Ouest airport project in Nantes under a VINCI concession contract. VINCI Construction will carry out the bulk of the works, which account for a total of €450 million.

€1.5 billion is the value of the works to be carried out by VINCI Construction Terrassement on the future SEA Tours-Bordeaux high-speed rail line. Some 350 VINCI Construction employees were already working on the 302 km project by the end of 2011.

• The A89 in the direction of Lyon, one of the major motorway projects under way in France, is being carried out for VINCI Autoroutes (Rhône section, 13 million cu. metres of earthworks, 60 bridges and tunnels).

• King's Cross, one of three London underground stations (along with Victoria, Tottenham Court Road) being renovated by VINCI Construction.

• The A2 motorway in Poland, a 29 km motorway project that is employing exceptional resources to be ready for Euro 2012. **In Belgium,** CFE continued its work in a consortium on the Diabolo rail link that connects the E19 motorway with the Zaventem airport terminal.

In the United Kingdom, VINCI Construction UK continued the large underground station renovation projects at King's Cross, Victoria and Tottenham Court Road, and won a construction contract for the Whitechapel station in a consortium with VINCI Construction Grands Projets and Bachy Soletanche Ltd. A new contract was also signed for the second phase of the Nottingham Express Transit system, covering 17.5 km of new lines.

In Poland, following the cancellation of a contract initially awarded to a Chinese company, Warbud worked with Eurovia on the A2 motorway project, a 29 km section for which the main stretch is to be opened to traffic in June 2012 in time for the European football championship. Exceptional resources are being employed on this project, which has a value of more than €200 million for VINCI, with up to 1 million cu. metres of materials placed in one month.

In Slovakia, again as part of synergies within the company, SMP subsidiary SMS completed construction of the bridges and tunnels for the R1 expressway, the 53 km motorway built by VINCI under a concession, the greater part of which was opened to traffic in October 2011. The 25-month project employed more than 2,500 people within the construction consortium.

In Russia, VINCI Construction Grands Projets and VINCI Construction Terrassement are providing programme management support for the construction of a first 43 km section of the Moscow-St Petersburg motorway, a project led by VINCI Concessions.

In Algeria, for the first phase of the Algiers metro, VINCI Construction Grands Projets has completed civil engineering works and full equipment of 10 stations over a 9 km section.

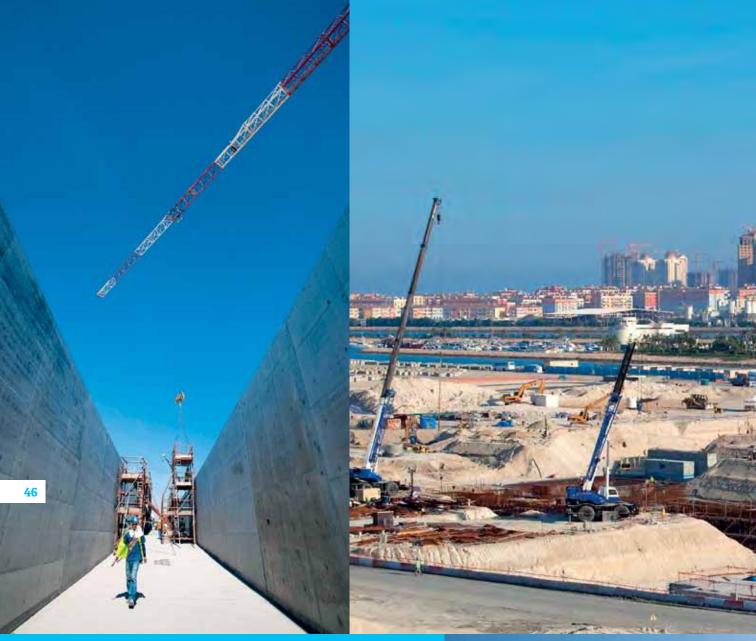






Chad A road to overcome isolation Sogea-Satom is rehabilitating the Koumra-Sarh highway under a €56 million project funded by the African Development Bank and oil funds. The project includes the development and pavement of a 110 km section of 110 km section of road and shoulders, road and shoulders, as well as the construction of two bridges. It will help open up the country and foster mobility of rural populations in the Mandoul and Moyen-Char regions.







Lusail, Qatar Light rail for a new city

Construction of the new city of Lusail, north of Doha, began with its public transport infrastructure: a 30 km long light rail system that runs underground over a quarter of its length.

The project is being carried out by QDVC, the Qatari Diar/ VINCI Construction Grands Projets subsidiary. In the first phases, the company provided design studies, earthworks and civil engineering of the tunnels and cut-and-cover structures

and the ventilation shafts. QDVC then won a new €378 million contract in 2011 covering civil engineering for the eight underground stations, construction of a viaduct across the motorway that connects Doha with the northern part of the country, and preliminary works at the site of the depot and maintenance shop. The next and last phase will cover systems and rolling stock. Turnkey handover is planned for 2016.



2011 Business Report CIVIL ENGINEERING



▶ **In Qatar,** QDVC, the joint Qatari Diar-VINCI Construction Grands Projets subsidiary, has signed a large €357 million contract for a new works phase on the Lusail light rail system *(see insert).*

In Africa, the main earthworks and roadworks projects carried out by Sogea-Satom involved the 110 km Koumra-Sarh highway in Chad *(see page 45)* and the 40 km Fambélé-Bouar highway in the Central African Republic. In the airport sector, Sogea-Satom handed over the runway and access roads at the Ewo airport in the Republic of Congo and began renovation/extension work on the airport in Bamako, Mali.

In Trinidad and Tobago, VINCI Construction Grands Projets won a new contract (\notin 23 million) to upgrade a motorway interchange and build two crossings along the Churchill Roosevelt motorway.

In Asia, Soletanche Bachy continued work on two major projects: the Singapore metro (WP 903 – construction of a station and a 680 metre cut-and-cover) and the Express Rail Link in Hong Kong. In the latter project, the company built part of the foundations of the future Kowloon terminal (180 large-diameter piles, 45,000 sq. metres of 1.5 metre thick diaphragm walls, utility network re-routing) and a 270 metre long cut-and-cover tunnel. Soletanche Bachy also signed a new contract to build the foundations of an extension of the Hong Kong international airport.

Other Soletanche Freyssinet speciality business activities included, in ground consolidation, the major projects carried out by Menard in Poland (Gdansk bypass), the Middle East (New Cities project in Kuwait, Yanbu and Ras Az Zawr industrial sites in Saudi Arabia), Turkmenistan (Yoloten gas field), Indonesia (Jakarta airport) and the United States (Reagan National Airport in Washington, DC). In retaining structures, the main Terre Armée projects were the Badarpur project in India (prefabrication and installation of 50,000 sq. metres of Reinforced Earth® walls on a 330 km rail link) and the Double Track project in Malaysia (100,000 sq. metres of Reinforced Earth® walls on a 330 km rail link).

2011 Business Report CIVIL ENGINEERING

BRIDGES

In mainland France, where a large number of standard bridges were built as part of road and rail infrastructure projects, VINCI Construction worked on several large-scale projects. The year's handovers included: in Brittany, the Térénez Bridge, France's first curved cable-stayed bridge, which holds the world record in curved bearing capacity with its 285 metre cable-stayed span (on which seven VINCI Construction companies worked); in the Greater Lyon area, the La Côtière Viaduct, a 1,200 metre long steel and concrete structure on the A432 motorway; the 2.2 km Compiègne northern bypass viaduct, built by means of the temporary stay-cable technique. Group companies also continued work on the Bacalan-Bastide Bridge in Bordeaux, which will have a 117 central lift span weighing 3,500 tonnes which will move along four towers above the Garonne, and a suspension bridge with a 164 metre span in Verdun sur Garonne built as part of a public-private partnership that also includes maintenance of the structure for a period of 25 years.

On Reunion Island, the consortium including Dodin Campenon Bernard (leader), SBTPC and Botte Fundations, continued the construction of a steel and concrete highway bridge over the Saint Etienne River with a length of nearly 700 metres.

In Luxembourg, CFE continued work on the Pulvermuehle Viaduct for the Luxembourg railways.

In the international market, Freyssinet put its specialised expertise to work on a large number of projects around the world. Projects completed and under way during the year included, in addition to the Térénez Bridge in France: in Russia, near Vladivostok, the Russky Island Bridge (with the world's longest cable-stayed span at 1,104 metres) and the Golden Horn Bridge (192 stay cables); in Canada, the Port Mann Bridge in Vancouver, a five-lane dual carriageway motorway structure for which Freyssinet used 288 stay cables; in the United States, the Indian River Bridge on the Delaware coast (152 stay cables); in Morocco, the Moulay Hassan prestressed concrete bridge in the Bouregreg Valley; in Korea, the Geo Geum Bridge (84 stay cables); in Poland, the Wroclaw Bridge, the country's highest suspension bridge; and in France, the Recouvrance lift bridge in Brest (refurbishment to accommodate a light rail line).

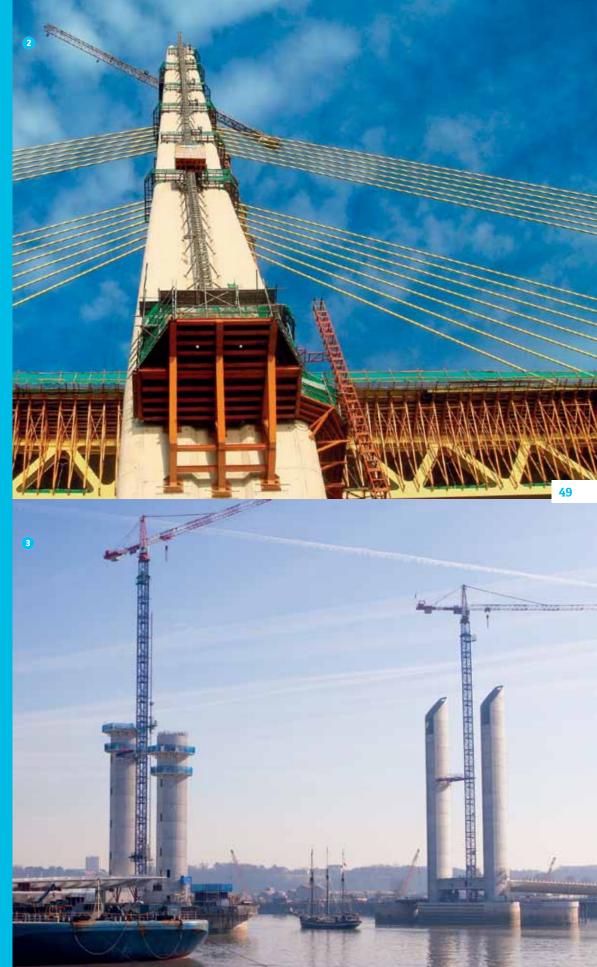




• The Russky Island Bridge in Russia, the world's longest cable-stayed span at 1,104 metres.

2 Geo Geum Bridge in Korea, a structure with a length of over 2 km equipped with 84 Freyssinet stay cables; the yellow colour is reminiscent of the sun's rays.

 Bacalan-Bastide Bridge in Bordeaux.
The 3,500 tonne central span will move along four towers to open up a 106 metre wide, 53 metre high shipping channel.





Sébastien Bliaut, VINCI Construction Grands Projets

The companies in the consortium worked as a completely integrated team, pooling their resources and skills and disregarding the language differences between the Dutch, German and French speakers, to carry out a large international project.



Alex Vandemeulebroecke, MBG (CFE)

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η,

We set up a win-win solution, re-using some of the earth that was excavated to form noise barriers to protect the houses along the rail line, and to backfill a new logistics complex built in the port.





ROTO

50.10

Antwerp, Belgium Underground rail line in the port

The Liefkenshoek rail link, the largest civil engineering project currently under way in Belgium, is a 16 km structure, nearly half of which runs underground, that will shorten the distance and speed the movement of containers between the left and the right banks in the Port of Antwerp.

The project uses the complementary skills and teams of CFE, the Belgian VINCI Construction subsidiary, VINCI Construction Grands Projets, and their partners CEI-de Meyer and Wayss & Freytag. CFE is also working with VINCI Concessions in the project concession consortium. Work was especially intense in 2011, with the breakthrough of the two 6 km tubes under the Escaut River, which is more than a kilometre wide at that point, and under the right-bank basin of the port.

TUNNELS

In France, Dodin Campenon Bernard and the regional subsidiaries of VINCI Construction France worked on several projects: in Paris, the extension of Line 12 of the metro between Porte de la Chapelle and Mairie d'Aubervilliers (3,640 metre tunnel, one station and five access and emergency shafts) and the VL9 collector main (works package 2) for the SIAAP wastewater authority; in Lyon, the extension of Line B of the metro towards Oullins (1,800 metre tunnel, bored under the Rhône River) and the structural rehabilitation of the Croix-Rousse road tunnel (construction of a new 1,730 metre structure and renovation of the existing tunnel); on the A89, construction of the 3,900 metre dual-tube Violay tunnel for VINCI Autoroutes. In addition, VINCI Construction France continued work on the Prado Sud tunnel (1,500 metre cut-and-cover) in Marseille and Dodin Campenon Bernard began boring the Saverne tunnel (a dual tube with a length of 4 km and an inside diameter of 9 metres) on the Est-Européenne high-speed rail line. In Toulon, Soletanche Bachy completed the second road tunnel crossing the city from west to east

Underground works activity was also driven by the many projects aimed at upgrading existing road tunnels to standards, especially in the Greater Paris area. These included the Parc des Princes, A13, A6B and Les Halles tunnels in Paris.

In Benelux, CFE and VINCI Construction Grands Projets continued underground works on two projects awarded to VINCI under concession contracts. One was the Liefkenshoek rail link, a new 16.5 km structure under the Port of Antwerp and the Escaut River *(see page 51)*. The other was the new Coentunnel, a 715 metre, five-lane tunnel that runs under water and will connect the city centre with the northern part of the urban area. **In the United Kingdom,** VINCI Construction Grands Projets and Soletanche Bachy are working, in a consortium, on two large projects in London: the construction of the 7 km Lee Tunnel, which will collect stormwater and wastewater in the eastern part of the urban area *(see insert);* and the tunnels for the Liverpool Street and Whitechapel stations of the future Crossrail express rail link.

In the international market, VINCI Construction Grands Projets continued work on Line 3 of the Cairo metro in Egypt, the Hallandsås rail tunnels (with a total length of 11.2 km) in Sweden and the Brightwater Tunnel in Seattle, Washington, in the United States. Lastly, a major contract was signed, in a consortium with Soletanche Bachy, in Chile. The €278 million project covers construction of two 9 km tunnels at El Teniente, the world's largest underground copper mine.

WORKS

DEME was involved in a large number of dredging and marine works on all continents. Highlights were the construction of the Gateway Port in London, one of Europe's largest container ports, for which 29 million cu. metres were dredged and the Thames was deepened over a distance of 100 km; Soletanche Bachy is also working on this project, where it is building the diaphragm walls. In Australia, DEME won, as part of a consortium, three contracts for the Port of Gladstone extension project with a total value of nearly €700 million. It was also selected to perform the dredging and hydraulic construction works off the coast of Abu Dhabi (United Arab Emirates) in preparation for the creation of two artificial islands.

2 x 3,900 metres is the length of the dual-tube Violay Tunnel, the longest underground structure along the new section of the A89 motorway in the direction of Lyon, which forms part of the ASF (VINCI Autoroutes) network. The boring of the structure was completed in 2011.

• The Saverne tunnel, a 4 km long, 9 metre inside diameter dual-tube tunnel on the Est-Européenne high-speed rail line.

Croix-Rousse,

Lyon: refurbishment of an existing road tunnel and construction of a new 1,730 metre structure for which boring was completed in 2011.

8 El Teniente, Chile,

the world's largest underground copper mine, where VINCI Construction will be building two 9 km tunnels.











United Kingdom Lee Tunnel: the volume of wastewater discharged to the Thames will be halved. VINCI Construction Grands Projets and Bachy Soletanche Ltd are working in a consortium to build a 7 km tunnel at a depth ranging from 55 to 75 metres to collect stormwater and wastewater in the eastern part of the Greater London area. The 120 metre long Busy Lizzie tunnel boring machine, equipped with an 8.85 metre cutting head, was placed in its starting shaft *(photo)* at the end of 2011, from which boring operations began in February 2012. The structure will halve the 32 million cu. metres of polluted water discharged every year to the Thames by capturing it at source. The project also includes construction of four very large diameter shafts and the supply and installation of the equipment and PLCs required to manage the wastewater and lift it over 80 metres.



In marine works, apart from the construction of the large capacity wind farm off the Belgian coast, DEME is placing gravel over 1,200 km in Russia to accommodate two offshore gas pipelines (North Stream) in the Baltic Sea, as well as placing a 100,000 tonne bed of gravel in the Kara Sea to support a gas platform. The commissioning of eight new ships – including the Ambiorix cutter suction dredger, one of the world's most powerful – in 2011-2012 consolidates DEME's technological edge and capabilities in markets in which projects are steadily increasing in size and complexity.

In France, the first phase of the project designed to improve ship access to the Port of Rouen, awarded to a consortium that includes SDI (CFE) and EMCC (VINCI Construction France), has got under way. A consortium that notably comprises VINCI Construction France subsidiaries Sogea Caroni, EMCC and Tournaud as well as SDI continued work on the SDG terminal in the seaport of Dunkergue. The port projects carried out by other VINCI Construction companies primarily involved the extension of the Port of Cotonou in Benin (see page 16); the construction of a new quay in the Port of Montevideo in Uruguay; and the Barangaroo seafront redevelopment project in Sydney, Australia, that will transform a 22 hectare former container terminal into a new precinct, and for which Menard Bachy is building the basement walls.

Barangaroo, Sydney.

Construction, on the seafront, of a basement wall (13,000 sq. metre diaphragm wall, 650 ground anchors), to transform a former container terminal into a new urban precinct.

• DEME. New Ambiorix sea-going rock cutter dredger, one of the most powerful in the world.

Papua New Guinea.

Construction of a 450 km gas pipeline through an area that has, for the most part, no infrastructure.

Chernobyl.

Construction of the new confinement that will cover the damaged reactor and its sarcophagus; the arch will be assembled in an area away from to the sarcophagus and then slid over it on rails.

OIL AND GAS INFRASTRUCTURE

Entrepose Contracting did particularly brisk business in its activity related to oil and gas field production in Algeria. New contracts were signed at the Skikda site, where Entrepose Contracting has been operating for several years, and at the El Merk site in the south-eastern part of the country, the largest crude oil treatment unit in North Africa.

In pipelines, Spiecapag, Entrepose Contracting's specialised subsidiary, continued construction of a 700 km pipeline in South Africa, handed over in early 2012, and on a series of gas pipelines and related equipment in Angola. It began on-site work on the construction of a 450 km pipeline in Papua New Guinea.

In cryogenic tanks used to store liquefied natural gas (LNG), in which Entrepose Contracting's expertise forms an excellent fit with that of the other VINCI Construction entities, completions included the Gate project in Rotterdam (*see page 56*) and the GNL2 project in Skikda, Algeria (three storage units in conjunction with a liquefaction plant, built in a consortium with VINCI Construction Grands Projets). In France, Entrepose Contracting began the operational phase of a new project covering three tanks (each with 190,000 cu. metre capacity) in Dunkerque as part of a consortium led by the company and in which Soletanche Bachy is also taking part.



NUCLEAR

VINCI Construction works in the nuclear sector both as a builder of nuclear civil engineering structures able to take on global projects and as a specialist in nuclear facility engineering, operation, maintenance and decommissioning via its subsidiaries operating under the Nuvia brand.

In nuclear civil engineering, VINCI Construction Grands Projets, as leader of the Novarka consortium, continued construction work on the confinement for the damaged reactor and its sarcophagus in Chernobyl, Ukraine. The 23,000 tonne arch with a height of 105 metres and a length of 150 metres will be assembled in an area set up to the side of the sarcophagus and then slid over it on rails. At the Cadarache site in southern France, VINCI Construction is building the containment for the future ITER nuclear fusion reactor (a 130 metre long, 90 metre wide and 50 metre high building). Dodin Campenon Bernard completed work on the Georges Besse 2 (Tricastin) plant designed to enrich uranium through centrifugation. Meanwhile, VINCI Construction France continued work on the Le Bugey, Tricastin, Flamanville, Paluel and Penly nuclear power plants. In Russia, Freyssinet continued the prestressing project on the Kalinin 4 reactor containment.

Nuvia worked at the main CEA, Areva and EDF sites in France on projects calling for its combined expertise in clean-up, robotics, fire protection, anti-seismic engineering, radiation protection, waste management, operation and maintenance. Nuvia continued to expand internationally, especially in China, where it works in fire prevention. In the United Kingdom, Nuvia continued the engineering studies for the Silos Direct Encapsulation (SDP) project at Sellafield, the main British nuclear power facility, and expanded its operations in the military and reactor sectors.





Waste to energy From civil engineering to process engineering

Combining VINCI Construction France's civil engineering capabilities with VINCI Environnement's process expertise, VINCI Construction is building the new thermal treatment plant in Clermont Ferrand, which has a waste throughput capacity of 21.5 tonnes per hour, the first such facility built entirely by the Group.

Similar synergies have been created in the United Kingdom, where a joint company set up by VINCI Construction UK and VINCI Environnement was declared preferred bidder for the construction of three waste-to-energy plants in the counties of Hertfordshire, Cornwall and Yorkshire, under three contracts with a total value of nearly £500 million.



56

Rotterdam, The Netherlands Multiple synergies in LNG tanks

Inaugurated in September 2011, the new gas terminal in the Port of Rotterdam bears eloquent witness to the diversity and complementary fit of VINCI Construction's expertise. The site's three liquefied natural gas tanks, each with a capacity of 180,000 cu. metres, were designed and built by a consortium including Entrepose Contracting (leader) and VINCI Construction Grands Projets, with CFE Nederland and CFE subsidiary MBG for civil engineering, Soletanche Bachy for ground consolidation (by means of vibroflotation) and

Freyssinet for prestressing of the concrete containments. VINCI Energies also worked on a number of electrical, insulation and instrumentation works packages. Entrepose Contracting, in charge of the mechanical engineering part of the project, designed and manufactured the steel cryogenic tanks with perlite insulation that can withstand 1.8 4 4

insulation that can withstand very low temperatures. The project required three and a half years of work, 55,000 cu. metres of concrete for the baseplates and 20,000 tonnes of steel.

2011 BUSINESS REPORT HYDRAULIC ENGINEERING

58



2011 Business Report HYDRAULIC ENGINEERING

DAMS

In Egypt, three years after handing over the Naga Hammadi dam, VINCI Construction Grands Projets won the design-build contract for a new Nile dam at the end of 2011 *(see opposite).*

In France, VINCI Construction France subsidiary EMCC, which specialises in marine and underwater works, continued construction of the new Coudray-Montceaux dam on the Seine; the second part of the project was initiated in 2011 with the construction of a second pass protected by a cofferdam that cuts the bed of the river over half its course. VINCI Construction Terrassement continued the construction of the dam over the Rizzanese River in southern Corsica. Freyssinet is repairing the Pannecière dam in Burgundy.

Soletanche Bachy's expertise in deep foundations and ground technologies is frequently called upon for dam construction and renovation projects. For example, in the United States the company continued rehabilitation of the Wolf Creek dam in Kentucky, the country's ninth largest impoundment. The project comprises construction of a 1,200 metre long diaphragm wall to a depth of up to 85 metres in very hard rock. It is being carried out in two stages: following construction of a temporary wall to protect the body of the embankment, the final wall is built by drilling through the temporary wall. In India, Soletanche Bachy will start work on a waterproof cut-off wall for the Subansiri gravity dam being built in Assam State; the wall is being built from tunnels within the dam by means of a narrow hydrofraise machine developed by Soletanche Bachy.

Hydroplus, the VINCI Construction Grands Projets subsidiary specialising in construction of fusegates that optimise dam safety and storage capacity, signed three new contracts in 2011. One, in Australia, covers installation of fusegates on the Perth and Quipolly dams to increase their storage capacities by 25% and 55% respectively. Another, in the United States, covers engineering studies for the compliance upgrade of the Beaver dam in New York State. Meanwhile, in Colombia, historic high water at the Urra dam several months after the fusegates were commissioned demonstrated the effectiveness of the Hydroplus system under particularly harsh conditions.

DRINKING WATER NETWORKS AND SYSTEMS

In mainland France, hydraulic engineering work is spread over a large number of medium-sized contracts. VINCI Construction France subsidiaries perform network compliance upgrade, renewal and maintenance work for local authorities, often under multi-year contracts, as well as larger network re-routing projects as part of tramway construction projects. The expansion of hydraulic civil engineering work also helps boost activity. For example, VINCI Construction France won the contract to build a new water-production plant in Renaison as part of a consortium with VINCI Energies, which will provide monitoring and control equipment. The plant will have a capacity of 2,000 cu. metres per hour and the value of the works contract is €13 million. ►

📵 In Avignon,

next to the Palais des Papes, the Rocher des Doms water mains pipeline is being replaced.

In Australia,

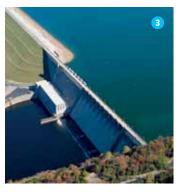
construction of eight fusegates on the Quipolly dam in New South Wales, designed to increase the storage volume of the reservoir by more than 2.8 million cu. metres.

The Wolf Creek

dam, United States. Construction of a 1,200 metre long diaphragm wall to a depth of up to 85 metres.







50,000 cu.

metres per day is the drinking water production capacity of the new plant that VINCI Construction is building in Yaoundé, Cameroon.



Assiut, Egypt New dam on the Nile

the Nile About 250 km north of Luxor, VINCI Construction will be building the new Assiut dam as lead company in a consortium that also includes Arab Contractors and Orascom. The new structure will replace an existing dam that goes back to the beginning of the 20th century. Designed to control the course of the Nile, support irrigation and generate electricity (by means of four 8 MW turbines), the new dam will be equipped with locks to accommodate shipping traffic. The works, which have a value of €266 million, will get under way in May 2012 and take 64 months to complete.



2011 Business Report HYDRAULIC ENGINEERING



Reunion Island Turnkey wastewater treatment plant

Combining Sogea Réunion's civil engineering capabilities and VINCI Environnement's process expertise, the Port Possession wastewater treatment plant extension/renovation project was handed over in 2011. Completed in 24 months, it raised the plant's capacity from 33,000 to 87,000 population equivalent. Port Possession is the island's first treatment plant equipped with the membrane filtration technology, which ensures faultless water quality under all conditions and reduces the size of civil engineering structures. This solution is well suited to the plant's location on the Indian Ocean near a beach used for swimming and in an environment with rich biodiversity.





Didier Haegel, VINCI Environnement

Our approach was to operate with Sogea Réunion on an integrated basis, and this enabled us to optimise design and construction and to present a very competitive bid in a highly competitive environment. For example, we asked Sogea Réunion to take charge of implementing a part of the process, and this reduced costs by enabling us to use their local resources.



Mauro Lisa, Sogea Réunion

Many wastewater treatment plant projects have been initiated on Reunion Island in recent years and VINCI Construction is one of the main companies involved in the programme. Our Reunion companies operate in a well-oiled partnership with VINCI Environnement. Following on from the Port Possession project, the main focus for our teams is now the Grand Prado plant, one of the largest projects currently under way on the island.



2011 Business Report HYDRAULIC ENGINEERING

▶ In Overseas France, in addition to the many pipeline projects carried out by VINCI Construction Dom-Tom companies, Sogea Guyane won several contracts to improve drinking water systems in the central coastal area. The project includes construction, by a consortium, of a pumping station and its supply system as well as work on a 20 km section of the distribution system between Matiti and Cayenne (Sogea Guyane share: €38 million).

In Africa, Sogea-Satom began work in Gabon on a large drinking water supply project for the city of Libreville. It includes construction of two storage tanks with capacities of 7,500 and 10,000 cu. metres respectively and of 12 km of 1,000 mm diameter pipelines. In Cameroon, the company won a €30 million contract to extend a raw water treatment and drinking water production plant in Yaoundé (raising capacity to 50,000 cu. metres per day).

VINCI Construction Grands Projets won several contracts that expanded and consolidated its international positions. The first, with a value of €15 million, covers the rehabilitation and extension of the drinking water system in Djibouti. The project includes renovation of 34 wells and construction of 150 km of mains and 6,000 branch lines. The second, worth €10 million, is for the renovation of a treatment plant in Sri Lanka that will improve drinking water supply in the northern city of Trincomalee. Lastly, in Jamaica, following the 2010 drinking water treatment contract in Kingston, VINCI Construction Grands Projets won the \$17.5 million contract to rehabilitate two plants that supply the eastern part of the city.







Warsaw, Poland The country's largest wastewater treatment plant

The works of the Czajka wastewater plant extension and upgrade project north of Warsaw were completed in 2011. Designed and built by a Warbud-led consortium, the project increased the existing plant's capacity by 240,000 cu. metres per day to 435,000 – i.e. by 1.2 to 2.1 million population equivalent, making the new station Poland's largest. Warbud carried out the land development and civil engineering works and laid the pipelines. The project was completed in two phases so as to keep the existing plant in operation throughout the works; the existing structures were demolished during the second phase.



WASTEWATER COLLECTION SYSTEMS, TREATMENT PLANTS

In mainland France, some 20 wastewater treatment plants were being built or renovated at the end of 2011, including the Seine-Morée plant in the Greater Paris area, which serves a population equivalent of more than 200,000, and the Louis-Fargue plant in Bordeaux (completion of the first phase and start of the second). VINCI Construction France, as part of a consortium, won a major contract during the year to design and build the new pre-treatment facility at the Greater Paris area Seine-Aval treatment plant in Achères. The civil engineering component of this project accounts for five years of works and has a value of €110 million.

On Reunion Island, the treatment plant construction/ renovation activity remained buoyant with projects under way in Le Port, Saint Benoît, Saint Rose and Etang Salé. Civil engineering work was also started on the new Grand Prado plant with a 160,000 population equivalent capacity, which will treat the wastewater from the municipalities of Saint Denis, Sainte Marie and Sainte Suzanne. The project, carried out under a 20-year concession contract, brings together the complementary capabilities of Sogea Réunion and SBTPC. In French Guiana, work on the drinking water distribution network between Matiti and Cayenne.

2 In Libreville,

Gabon, laying of 12 km of 1,000 mm diameter cast-iron pipes for the city's drinking water supply network.

In Bordeaux, construction of the new Louis-Fargue treatment plant, one of France's largest, with a 447,000 population equivalent capacity.

🔇 In Qatar,

construction of three pipelines as part of a wastewater project north of Doha, which also includes lifting and transfer stations. **In the United Kingdom,** the Lee Tunnel project awarded by Thames Water, which is designed to collect stormwater and wastewater in the eastern part of the Greater London area, entered the operational phase *(see box page 53)*.

In Central Europe, Warbud completed the works of the Czajka treatment plant north of Warsaw, the country's largest (see box). The project had a value of \notin 300 million for the company.

In Qatar, VINCI Construction Grands Projets, QDVC (a joint subsidiary held with Qatari Diar) and Entrepose Contracting initiated the last phase of a large wastewater project north of the city of Doha (construction of a wastewater lifting station, a transfer station, three pipelines and peripheral units), with a view to commissioning the facilities in the second half of 2012.

In the Dominican Republic, VINCI Construction Grands Projets won a €108 million contract to build the wastewater collection, transfer and treatment facilities for five cities (Monte Cristi, Neiba, Azua, San Jose de Ocoa and San Cristobal). The project includes 500 km of pipelines to be laid and the design-build construction of eight treatment plants and six pumping stations. The work will take 42 months to complete, including the six-month design period.

500 km

of new pipelines are to be laid in the Dominican Republic under the design-build contract for the wastewater collection, transfer and treatment systems in five cities

- Network of local subsidiaries
- Specialised civil engineering activities Management and execution of complex projects
- Α
- Aannemingen Van Wellen n.v.
- ABO Supply
- Acanthe BTP
- ACTP
- ADIM Est
- ADIM IDF
- ADIM Lyon
- ADIM Nord-Picardie
- ADIM Normandie-Centre
- ADIM Ouest
- ADIM Régions
- ADIM Sud PACA
- ADIM Sud Provence Languedoc Roussillon
- ADIM Sud Var Côte d'Azur
- ADIM Sud-Ouest
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- AGRA Foundations Limited
- Alga Spa
- Amart s.a./n.v.
- APS Alkon a.s.
- Arbonis Construction
- Arene
- Armor
- Asia Pacific Solutions Ltd Ateliers Mainponte

66

В

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- Bachy Belgique
- Bachy Fondaco Caraibes
- Bachy Soletanche Co Ltd
- Bachy Soletanche Group Construction Malaysia SDN BHD
- Bachy Soletanche Group Ltd
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- Bachy Soletanche Philippines
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- Barriquand
- Barriquand travaux spéciaux
- Barthere
- Bateg
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- Bermingham Foundation Solutions
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- Bonino
- Botte Fondations
- Bourdarios
- Bourelly
- Bourgeois
- BPC s.a./n.v.
- BPI Polska
- BPI s.a./n.v.

- Brantegem n.v.
- Bud-Inz. Sp. z o.o.
- BVT DYNIV GmbH

Cofex Littoral

Cofex Régions

Cofframat

Conren Ltd

Correa Louge

Croizet-Pourty

De Vries & van de Wiel

DEC Asia Pacific Singapore

DEC Nigeria (Silt & Soils)

• CSM Bessac

CTOW n.v.

Construction management Tunisie

Corrosion Control Services Ltd

Cofor

Cogit

Comte

 Cotres Covareal

CQS

CTPR

CTS

D

DFC

DEC France

DEC Middle East

DEC Italy

DEC Spain

DEC Sweden

DEC/Ecoterres

Dehe Construction

Delattre Bezons Nigeria

Delery Construction

DEME Blue Energy n.v.

DEME Building Materials b.v.

• DEME Building Materials Ltd

DEME Building Materials n.v.

DEC UK Ltd.

Delair-CFD

DEME s.a./n.v.

DGI Menard Inc

Diap Shangai Office

Dodin Guadeloupe

Dodin Réunion

Dredeco PTY Ltd

Dredging International

Dredging International Asia Pasific

Dredging International India PVT Ltd

Dredging International n.v. Sucursal

Dredging International Services

Dredging International Spain

Dredging International UK Ltd

 Dumez Anstett-Savonitto Dumez Côte d'Azur

Dumez Île-de-France

Dumez Méditerranée

Dumez Méditerranée Management

Dumez Lagorsse

Dumez Maroc

Dodin Campenon Bernard

Desgrippes

Dodin IDF

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Nigeria Ltd

Druart s.a.

Dumez EPS

Dumez Anstett

Ducloux

Degaine

Dumez Monaco

 Dumez Picardie Dumez Rhône-Alpes

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Dura Soletanche Bachy

• Dura Piling Botswana (PTY) Limited

Dura Soletanche Bachy Mozambique

Dumez Sud

• Dumez Var

Dura Zambie

Écoterres France

EGC Canalisation

ENGEMA Lignes

• ENGEMA s.a./n.v.

Entrepose Algérie

Entrepose Contracting

Entrepose Asia

• Entrepose Libya

Epios

Fric

Essor

FTCR

F

Co. Ltd

Eontec SA

Fratom

Freyrom

Freysas

S.A.

Frevssinet

Fougasse TP

ETEC s.a.

Etair Pyrénées

Europ'Agrégats S.A.S.

Europile Pålteknik AB

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Expertises et travaux maintenance

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• Entrepose Projets

Entrepose Services

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• ENGEMA Rail

ENGEMA Montage

Dynacoord

E

ERM

EITP

EMCC

Enbatra

Edif Real



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- CBR TP
- CETRA
- CFD
- CFE Algérie
- CFF Brabant
- CFE EcoTech CFE Hungary • CFE Immo

CFE International

CFE Nederland b.v.

CFE Polska Sp. z o.o.

CFE Qatar wll

CFE Romania

CFE s.a./n.v.

CFE Tchad

CFF Tunisie

Ch. Houillon

Chabanel

Chaillan TP

Challenger Special Oil Services

Chantiers Modernes Rhône-Alpes

Chantiers Modernes Sud-Ouest

Cimentaciones Mexicanas S.A. DE C.V.

Chantiers Modernes

Chanzy Pardoux

CMA Entreprises

CMP Dunkergue

COCA Île-de-France

Cofex Île-de-France

COCA Sud-Est

(CIMESA)

• CIF

CIPEC

 Claisse Claisse Bâtiment

CLE sa

CMPEA

• CMS

• COCA

CLI

Charles Queyras TP

Chantiers Modernes BTP

Chantiers Modernes Sud

CFE Slovakia s.r.o.

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- Freyssinet Jordan LLC
- Freyssinet Korea Co. Ltd
- Freyssinet Kuwait
- Freyssinet Ltd
- Freyssinet Manila Inc.
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- Freyssinet Middle East LLC Freyssinet Nederland B.V.
- Freyssinet Norge AS Freyssinet Ogranak Beograd
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- H
 - Halle
 - Halle Pays Dolois
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Méridienne de Construction et Bâtiment

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Midi Atlantique Fondations (MAF)

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Nassbagger- und Tiefbau GmbH

Nicholson Construction Company

Nordsee Nassbagger - und Tiefbau

Merle

MTC

Ν

NEO

Metalithe

Millennium

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GmbH

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Nuvia

U

Ocidim

P

PAC

Petit

Pichenot

Pitance

POA

Prumstav

Purazur n v

ODVC

Odotechniki

Osnova-Solsif

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Nicholson Construction

R

Ratto EGV

Reichart

A.S.

SDN BHD

Remacom n.v.

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Retained Earth

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S

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67

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Reinforced Earth Insaat Proje Ve Ticaret

Reinforced Earth Management Services

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N

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- Sociea Atlantique BTP
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- Sogea Nord-Ouest TP Sogea Picardie
- Sogea Réunion

68

- Sogea Rhône-Alpes
- Sogea-Satom
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- Sogea-Satom Gabon
- Sociea-Satom Guinée
- Sogea-Satom Guinée Équatoriale
- Sogea-Satom Kenya
- Sogea-Satom Madagascar
- Sogea-Satom Mali
- Sogea-Satom Mozambique
- Sogea-Satom Niger
- Sogea-Satom Ouganda
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- Sogea-Satom République démocratique du Congo
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- Sogea-Satom Tanzanie
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- Sogea-Satom Togo
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- Sogea Sud-Est TP
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Structures Vietnam - Hanoi

Sud Travaux

Tasbarmc

TEC system

Tabard Construction

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TSM

U

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V

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VIPP Travaux

• VMA VMA Slovakia

Vraco

W

Warbud SA

 Weiler Westpile Limited

Ζ

7etas

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SPPC

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