

ACTIVITY REPORT
2018

WORKING WITH YOU TO BUILD YOUR STORY

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Cover: Works package T3C of Line 15 South (Grand Paris Express), assembly of the tunnel boring machine cutting wheel in Arcueil-Cachan (also see p.35).

PROFILE

€14,231m
Revenue*

€400m
Operating income
from ordinary activities*

over 30,000
Projects under way

VINCI Construction is a global player and European leader operating on five continents with more than 71,000 employees, 830 companies and strong roots in its host geographies. We design and build structures and infrastructure that address the major issues facing today's world – global warming, population growth, burgeoning urbanisation and increasing mobility. Our integrated design-build business model enables us to operate across the entire project life cycle (financing, design, construction and maintenance) in eight business areas: buildings, functional facilities, transport infrastructure, water infrastructure, renewable and nuclear energies, environment, oil and gas and mining. Our goal is to build strong stakeholder partnerships and trust and our approach is grounded in the principles of transparency, dialogue and corporate responsibility. In a rapidly changing world, we strive to set an example in construction and to become the global benchmark and the partner of choice of our customers.

* IFRS 2018 data



"THE CONTENT OF OUR SOLUTIONS AND SERVICES IS CONSTANTLY EVOLVING AND EXPANDING."

A talk with Jérôme Stubler, Chairman of VINCI Construction.

How would you describe VINCI Construction's performance in 2018?

VINCI Construction is on the right track. We have returned to growth and our order book has substantially increased over the past two years. This reflects the hard work we have done in recent years. We have boosted our operations outside France by making a number of selective acquisitions. For example, we have significantly expanded our business in Oceania.

Our income from operations grew by nearly 20%* in 2018, improving our strength. We must continue to improve going forward to ensure that our results are commensurate with the engagement of our teams.

What were the main VINCI Construction projects in 2018?

We handed over more than 30,000 projects. Obviously VINCI Construction is known for design-build construction of major projects, but that

should not obscure the fact that we also handle a large number of wide-ranging, smaller projects. We do our best to capitalise on that asset. This more granular business gives us a stronger presence and makes us more useful day-to-day, while protecting us from strong fluctuations in the major projects business cycle. We are proud of our ability to handle both small local projects and large international projects. In 2018, the latter included the iconic Lusail light rail in Qatar, built by our subsidiary QDVC. Other major projects included offshore ground consolidation as part of the Hong Kong airport extension led by Bachy Soletanche, the Phuoc Khanh and Binh Khanh cable-stayed bridges built by Freyssinet in Vietnam and the gas pipeline across Albania and part of Greece laid by Spiecapag. I could also mention the Varso Tower in Warsaw, which will be Europe's tallest building and is being built by Warbud; the rotation of the metal frame of the railway bridge on the Pňovany-Bezdrúžice line



“IN 2018, WE IMPROVED OUR STRENGTH.”

in the Czech Republic by SMP; and the Ouagadougou highway interchange in Burkina Faso built by Sogea-Satom. In France, we are completing the New Coastal Highway viaduct on Reunion Island, together with Dodin Campenon Bernard, VINCI Construction Grands Projets and our local subsidiary SBTPC. VINCI Construction France is also involved in various major projects in the La Défense business district near Paris, where it is building the Saint-Gobain and Trinity towers, the nearby VINCI head office and under it a new underground station and adjacent tunnels for the e-déf Eole-La Défense project.

What is your take on the main geographical areas where VINCI Construction operates? How are these geographies doing?

Our revenue is expanding substantially in Central Europe with the start of a number of major projects. We are expanding in Oceania with Seymour Whyte and HEB Construction, which have won significant contracts in Australia and New Zealand. In Africa, growth is resuming after a downturn over several years. Our volume declined in the Middle East following completion of a number of major projects. In North

and South America and in Asia, business has held steady overall. And in France our order book is up, thanks to opportunities generated by the Grand Paris programme and the growth of large urban areas.

What are the major challenges facing VINCI Construction?

These are exciting times in more ways than one. The content of our solutions and services is constantly evolving and expanding. For example, we are working on ways to tackle urbanisation issues via new approaches to urban (re)construction above and below the city. We are also providing practical solutions for our customers by building more affordable housing that is better suited to the needs and budgets of first-time home buyers. And we are humbly but firmly involved in the energy revolution. To do this, we design and build structures that save

increasing amounts energy; and in a separate development, we are currently building a hydroelectric energy storage unit in Morocco. We are also supporting the green revolution movement by restoring biodiversity to our regions and urban areas, remediating polluted land and providing environmental engineering services. Another key focus is digitalisation. Our worksites are rapidly going digital. Sixsense, our subsidiary specialising in digitalisation of building and infrastructure construction, provides innovative solutions that facilitate our worksite operations and enable us to work faster, smoother and safer. Lastly, we are focusing on employment. With the expansion of our activity in France we hired more than 2,000 long-term unemployed people in 2018. We are doing the same thing abroad. This reflects the social significance of our work, in which all our teams take pride.

“MORE AND MORE CUSTOMERS ARE SEEKING TO BUILD A RELATIONSHIP BASED ON TRUST.”

How is VINCI Construction conducting its transformation?

For the past several years, VINCI Construction has been structured in three complementary pillars – a network of local general contracting companies, major projects companies and a global network of specialist companies. To transform the group at a fast pace, we are accentuating synergies to offer more integrated solutions and services. We have also made a major effort to achieve constant improvement in our design methods and execution productivity.

In practical terms, how is digital technology changing the design-build construction industry?

Digitalisation is nothing new in our business activities – it is already widespread in our design activity. The advent of BIM has enabled us to co-design our structures through geometrical integration of the various building trades. This significantly improves worksite preparation and reduces the number of changes made during the construction phase. Worksite digitalisation is already well under way with the use of various software systems such as Digital Site, which paves the way for our works teams to move to paperless operations.

How are your customer relationships evolving?

An increasing number of customers are seeking to develop a relationship based on trust. This is reflected in the growth of ECI - Early Contractor Involvement. With ECI, the cost-timeline equation can be optimised, with the initial design phase based on the co-design concept via direct, productive dialogue with the customer. This results in more cooperation, greater cost control, lower risk and a design phase that benefits both parties. Such a relationship enables all stakeholders to pull in the same direction, work together to find solutions to the difficulties encountered and ultimately boost their performance.

What are the keys to success in today's world?

The answer is clear-cut. To be efficient in a complex world, we need to keep it simple. Of course that is much easier said than done. In our business, we face the constant challenge of delivering a project under the best possible conditions. This entails compliance with a number of essentials: painstaking preparation, team management focused on design excellence and productivity, and a close,

supportive, long-term working relationship with our customers.

What is the outlook for VINCI Construction in 2019 and thereafter?

We move into 2019 with an order book that has increased significantly and outstanding

projects coming up. Nothing can ever be taken for granted but I am confident that by focusing on our fundamentals, our “essentials”, by which I mean our endeavour to achieve simplicity and constant improvement, we will deliver clarity and performance, the keys to trust and success.

“SIMPLICITY IS ONE OF THE KEY SUCCESS FACTORS IN TODAY'S WORLD.”





JÉRÔME STUBLER

Chairman,
VINCI Construction

MANAGEMENT TEAM

The management team brings together the chairman of VINCI Construction, the chairmen of the main companies that make up VINCI Construction and the directors of the support functions.



GILLES GODARD

Chairman,
VINCI Construction International Network



HUGUES FOURMENTRAUX

Chairman,
VINCI Construction France



MANUEL PELTIER

Chairman,
Soletanche Freyssinet



BENOÎT LECINQ

Chairman,
Entrepouse



PATRICK KADRI

Chairman,
VINCI Construction Grands Projets

MANAGEMENT TEAM



YANN GROLIMUND
Chief Administrative and Financial Officer,
VINCI Construction



HERVÉ MELLER
Human Resources Director,
VINCI Construction



CORINNE DESCOURS
Communications Director,
VINCI Construction



JEAN-SERGE BOISSAVIT
Business Development Director,
VINCI Construction



CHLOÉ CLAIR
Chief Technical Officer,
VINCI Construction



NATHALIE MABIL
General Counsel and Ethics Coordinator,
VINCI Construction

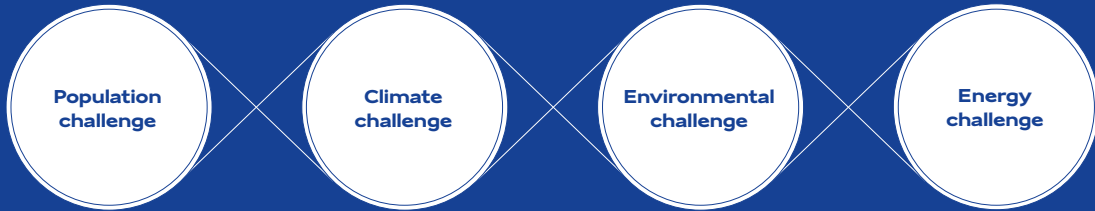


JEAN-PHILIPPE BRÉOT
Health and Safety Director,
VINCI Construction



PHILIPPE VENAMBRE
Information Systems Director,
VINCI Construction

"We harness our diverse range of solutions and services to design and build a wide variety of complex structures and infrastructure around the world."



A RANGE OF SOLUTIONS DESIGNED TO ADDRESS GLOBAL ISSUES



BUILDINGS

Improving the living environment

Residential and office space, hotels



FUNCTIONAL FACILITIES

Optimising urban facilities

Shopping centres, schools, universities, cultural and heritage buildings, stadiums, sports facilities, hospitals and industrial and service sector facilities



TRANSPORT INFRASTRUCTURE

Making the world more mobile

Roads, bridges, viaducts, marine and river infrastructure, railway and airport infrastructure



WATER INFRASTRUCTURE

Making the most of water resources

Dams, canals, locks, pipelines, wells



RENEWABLE AND NUCLEAR ENERGY

Fostering access to safer, more sustainable energy

Nuclear, wind, hydroelectric, geothermal



OIL AND GAS

Providing safe and durable infrastructure

Oil drilling, oil pipelines, gas pipelines, jetties, storage, processes



ENVIRONMENT

Protecting the planet

Water treatment, waste recycling, soil remediation, environmental infrastructure



MINING

Providing access to new resources

Roads, tunnels, drilling, soil investigation, cavities

71,401
employees

48%
of revenue* generated
outside France

A STRONG INTERNATIONAL PRESENCE

Revenue by geographical area
(in € millions and as a percentage)*

France
€6,855m
47%

Overseas
France
€719m
5%

North America
€530m
4%

Central and
South America
€583m
4%



Europe
€2,817m
20%

Africa
€932m
6%

Middle East
€453m
3%

Asia
€705m
5%

Oceania
€931m
6%

**"We are steadily expanding internationally.
VINCI Construction companies operate in more than
100 countries and in all types of environment."**

* Management figures (notably including QDVC)

THREE COMPLEMENTARY PILLARS

1

OUR NETWORK OF LOCAL SUBSIDIARIES operating close to our customers

Our network of local general contractors brings together a wide range of companies with strong roots in their regions, in France and around the world. The basic entity is a team focused on a main business activity and operating in an area close to its customers. These subsidiaries build on their familiarity with local markets and local issues to deliver solutions that meet customers' needs in projects of all sizes.

MAIN COMPANIES:

VINCI Construction France
VINCI Construction UK
VINCI Construction International Network:
- VINCI Construction Dom-Tom
(Overseas France)
- Sogea-Satom (Africa)
- Warbud, Prümstav, SMP
and SMS (Central Europe)
- HEB Construction and
Seymour Whyte (Oceania)
- SMCE (Mexico)

€9,048m

revenue*

40,415

employees

2

OUR MAJOR PROJECTS DIVISION managing major projects around the world

The companies in our Major Projects Division operate individually in the countries where the local network does not yet exist and in synergy with the other VINCI Construction entities in countries where the Group is already present. They deliver a high level of expertise across the full range of complex civil engineering, earthworks and building projects, provide outstanding engineering and project management capabilities and propose solutions that minimise project risk.

MAIN COMPANIES:

VINCI Construction Grands Projets
VINCI Construction Terrassement
Dodin Campenon Bernard

€1,303m

revenue*

6,959

employees

3

OUR SPECIALIST SUBSIDIARIES delivering technology and high level of expertise

Our specialist subsidiaries bring together engineers with strong geotechnical, structural, digital, nuclear, oil, gas and renewable thermal energy expertise to deliver solutions with high technological content. Operating in more than 80 countries, they can work as general contractors, joint contractors or subcontractors.

MAIN COMPANIES:

Soils: Soletanche Bachy and Menard
Structures: Terre Armée and Freyssinet
Nuclear: Nuvia

Digital services for construction: Sixense

**Oil and gas, energy storage and
Waste-to-Energy:** Entrepouse Group

€3,880m

revenue*

24,027

employees

* IFRS 2018 data

OUR ECONOMIC PERFORMANCE



A UNIQUE COMPANY

€14,231m
revenue*

Global player
and European leader

€400m
operating income from
ordinary activities*

€17.7bn
order book*
(up 5%), accounting for
14.9 months of activity



WIDE-RANGING ACTIVITIES

over 30,000
projects every year

830
consolidated companies



EMPLOYEES TRAINED TO STRIVE
FOR OPERATIONAL EXCELLENCE

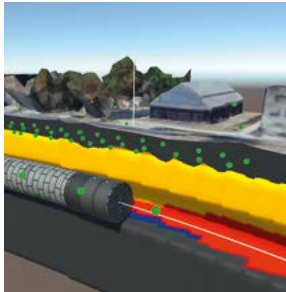
71,401
employees

over 1 million hours
of training provided in 2018

* IFRS 2018 data

A LOOK BACK AT 2018

A review of the progress that enabled the company to continue to grow and serve its main stakeholders.



Technological innovation in underground construction

Leading underground construction company Dodin Campenon Bernard has now fully integrated digital technologies in its business activity. To boost quality, safety and productivity, VINCI Construction has introduced real-time 3D display to facilitate tunnel boring machine operation, developed a functional prototype

real-time scanner for conventional underground works and adopted a company digitalisation plan.

DISCERN set up to deliver augmented reality

Following an R&D project coordinated by Dodin Campenon Bernard and focused on the widespread use of augmented reality on worksites, VINCI Construction decided to set up the DISCERN company in partnership with other industries. The purpose of the new company is to roll out “technical” augmented reality technologies in construction projects.

2018

Rapid digitalisation

VINCI Construction is increasingly using digital tools in its design-build process. For example, VINCI Construction France, VINCI Construction Grands Projets, Entrepose Contracting and VINCI Construction International Network are introducing the digital totem on their worksites, which is tantamount to an open-air office in a cabinet that displays the latest versions of drawings and BIM models in 2D and 3D. VINCI Construction France developed the device, which won a 2017 VINCI Innovation Award. Innovation is also a focus at Sixense, which has introduced the Digital Site tool on more than 300 projects and launched Sissterra®, which uses an innovative, non-invasive method to generate a 3D display of the subsurface. Lastly, Geoclean is working on an image recognition project for Entrepose Group to cover equipment references.



Construction of a community footbridge project

In partnership with the Danish COWI company, Freyssinet worked with U.S. NGO Bridges to Prosperity to help build the Kucyaruseke bridge in southern Rwanda. Five people from each company travelled to Rwanda to volunteer their skills. The bridge will improve daily life for the local population, which has so far used a rough log bridge across the river to take produce to the market in Huye.



Integration through worksite logistics

With the creation of LIVA, a social enterprise focused on back-to-work integration and specialising in logistics services for building worksites, ARES (51%) and VINCI Construction France (49%) joined forces to professionalise worksite logistics jobs and create a comprehensive digital and offsite logistics service. The social joint venture will also fulfil the integration clauses included in many contracts and foster innovation in worksite logistics.

FEBRUARY

APRIL

JUNE

A new entity in Mexico

With the creation of VINCI Construction Mexico, VINCI Construction hopes to play an active role in the private sector building market in central Mexico City. In December 2018, the new entity won a first contract in partnership with CIMESA (Soletanche Freyssinet) to carry out the structural works for an 18-storey apartment building.



Sixense expands its solutions and services

The acquisition of Perazio Engineering, which specialises in 3D/4D metrology and digitalisation, will give Sixense a comprehensive airborne, onshore, underground and offshore digitalisation solution.

BIM d'Or successes

VINCI Construction won three prizes at the 2018 BIM d'Or awards organised by Le Moniteur. At the awards ceremony, ADIM Paris Île-de-France (VINCI Construction France) was presented with the prize in the new building category for the Jardins de l'Arche high-rise in La Défense. Citinéa (VINCI Construction France) won the prize in the renovation projects category for the refurbishment of the Noirettes and Grand Bois apartment complexes in Vaulx en Velin in southeastern France. Lastly, the prize in the international construction category went to the VINCI Construction Grands Projets teams for the BIM-based construction of the National Research Oncology Centre in Astana, Kazakhstan.

Geste d'Or recognition

In the eighth annual Geste d'Or competition, which recognises exemplary projects focused on the heritage of the past, the present and the future, VINCI Construction France won the Geste d'Or du Grand Prix Architecture, Innovation Sociale et Économique award for the restructuring of the building at 8-10, rue Charles V in Paris by GTM Bâtiment; the Geste d'Or du Grand Prix Chantier award for the rehabilitation of the Couvent des Jacobins in Rennes and its transformation into a convention centre led by Sogea Bretagne BTP; the Geste d'Or du Grand Prix Amont award for the rehabilitation of the Congregation of the Sisters of Saint Joseph cloister in Annecy developed by ADIM Lyon; and the Geste d'Argent du Grand Prix Métiers award for the restoration of the Tour des Anges and the Tour de la Garde-Robe of the Papal Palace in Avignon by Girard.



Rehabilitation of the Couvent des Jacobins monastery in Rennes.

SEPTEMBER

OCTOBER



PREMIERS SUR LE TERRAIN

To highlight its one-of-a-kind earthworks capabilities, VINCI Construction Terrassement redefined its strategic positioning and adopted a new slogan: "First on the ground".

Virtual reality for the end user!

REHALIB, a virtual reality application for new-build and renovation projects, enables the prospective homeowner or tenant to use a smartphone or computer to enter the living space, choose arrangements and display possible changes. Following the intrapreneur programme at Leonard, VINCI's foresight and innovation laboratory, GTM Bâtiment (VINCI Construction France) is now developing REHALIB with the goal of rolling it out and making it into a viable business unit.



Chantiers & Territoires Solidaires issues a second call for projects

The Chantiers & Territoires Solidaires Fund co-founded by VINCI Construction encourages and supports public-interest projects located near the Grand Paris worksites on which Group companies are working. The Fund launched a new call for projects, its second, at the end of 2018 on the theme of social ties. Projects will be supported around the GCO2 worksite along Grand Paris Express Line 14 South. Around Line 15 South (lot T3C), 11 projects have already received Fund support, including Arpeije and its Le Rayon Vert integration project focusing on recycling, bicycle repair and accessory production.

“Entrepose au féminin” is up and running

Entrepose put together the “Entrepose au féminin” programme in order to open up its jobs to women and offer them attractive careers. It will ramp up initiatives in 2019 to achieve these objectives.

NOVEMBER

DECEMBER

Boosting our building envelope expertise

ActivSkeen, which specialises in photovoltaic facade surfaces and dynamic glazing solutions, has boosted its expertise with the acquisition of Ertex Solar, an Austrian company with expertise in building-integrated photovoltaics.



Shared pride in the ICE People’s Choice Award

The 2018 ICE (Institution of Civil Engineers) Prize was awarded to the Kaikoura road and rail recovery projects carried out in New Zealand following the November 2016 earthquake. The prize recognises HEB Construction’s work on the SH1 highway rehabilitation project.

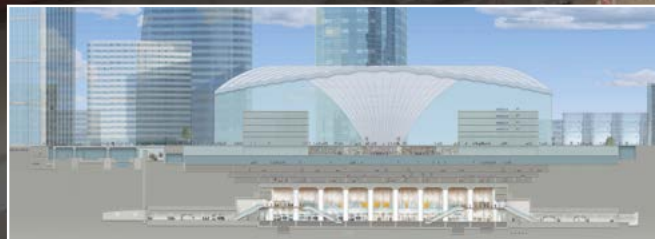
SHARING EXCEPTIONAL STORIES WITH YOU

For the e-déf Eole-La Défense project, which is extending the RER E regional express line west of Paris, VINCI Construction and its subsidiaries — VINCI Construction France, VINCI Construction Grands Projets, Dodin Campenon Bernard, Soletanche Bachy France, Freyssinet, Sixense and Botte Fondations — are building the underground station at La Défense and its adjacent tunnels. The new station will improve the quality of service provided for riders and more broadly enhance the attractiveness of the business district.

35 metres below the surface

The new station will be located under the CNIT in La Défense.

The VINCI Construction teams achieved a standout technical feat in underpinning the CNIT structure to enable the cathedral RER E station to be excavated under it. Work on the foundations of the new station got under way at the end of the year.



Setec / Egis / Duthilleul / Arep / Vincent Donnot



**Attentive
to our customers**
18 – 19

**Attentive
to civil society**
20 – 21

**Attentive
to the planet**
22 – 23

**Attentive
to our employees**
24 – 27



ATTENTIVE TO OUR CUSTOMERS

VINCI Construction works with its customers to design and develop solutions tailored to their needs.

Panorama.

As a benchmark construction group, VINCI Construction delivers solutions that are specifically tailored to the needs and expectations of its customers and help tackle several issues facing society at large.

Addressing major demographic and healthcare issues

Against a backdrop of steady population growth, urbanisation, burgeoning mobility and increasing housing and healthcare infrastructure needs, VINCI Construction focuses on solutions that address these issues.

For example, it has developed the Primméa brand to provide affordable, high-quality housing at below-market prices. The innovative Primméa approach is based on pre-design and modularity and aimed at facilitating low-cost first-time homeownership. Similarly, in the healthcare sector, VINCI Construction has built on its track record comprising more than 200 hospital projects around the world to put together the Hycare range of turnkey hospitals and medical centres. VINCI Construction Grands Projets delivers the Hycare range of solutions outside France to capitalise on the



The Hycare range of solutions and services launched in 2018 brings together VINCI Construction's expertise in the hospital sector.

experience gleaned by VINCI Construction France and make the most of its sought-after expertise to better support healthcare provision for populations.

Increasing focus on environmental issues

Another major issue, the environment, involves the fight against global warming, the effort to decarbonise our economies

and work to conserve biodiversity and natural resources. To improve quality of life, VINCI Construction has recently developed several ranges of products and services designed to address environmental issues: Equo Vivo, specialising in environmental engineering; ActivSkeen, based on building-integrated photovoltaics (BIPV); Remea, focusing on soil remediation; Urbalia, working

to include biodiversity and urban agriculture in urban development projects; and Arbonis, dedicated to wood construction. VINCI Environnement also helps protect the environment with its waste-to-energy solutions.

Delivering solutions to meet specific needs

To boost its presence and deliver new solutions for its customers, VINCI Construction continues its drive to operate on a number of complex, value-creating niche markets. For example, to meet the demand for design, construction and renovation of very high-end structures, the PLENDI by VINCI Construction brand was set up to focus exclusively on exceptional projects. Similarly, in the property sector, Novelige handles all building construction projects.

Building better and more cost effectively

The construction market is geared to a quest for continuous improvement. The goal is to build high-quality structures with optimised costs and delivery times, an increasingly complex challenge. For this reason, VINCI Construction is engaged in a variety of R&D initiatives aimed at shortening lead times and reducing costs.

Making the most of French hospital expertise

As part of the Hycare launch, VINCI Construction set up a Strategic Guidance Council. The Council is made up of physicians, university professors and a variety of medical practitioners. Its remit is to study and discuss the major issues facing the medical profession going forward. Input from the Council will enable VINCI Construction to put together the most appropriate solutions to address these issues and export French expertise.



In an exceptional project, the five-star Mandarin Oriental Hyde Park Hotel in London underwent major occupied site renovation works carried out under the PLENDI by VINCI Construction brand.

ATTENTIVE TO CIVIL SOCIETY

Like the VINCI Group as a whole, VINCI Construction engages with the community at large. Our CSR and civic engagement, a vital part of our design-build activity, is reflected in the action we take to benefit underprivileged communities.



In its first project in Equatorial Guinea, ISSA supported the construction of a soap production unit.

Continuing our civic engagement

We are engaged in a variety of civic activities.

First, we work with and through the Fondation d'Entreprise VINCI pour la Cité (VINCI foundation for the community). In 2018, for example, the VINCI Group's worldwide network of 12 foundations supported 427 projects sponsored by 697 employees. Of that number, 84 projects were sponsored by 138 VINCI Construction employees and focused on finding long-term solutions for people

experiencing difficulty with social or work integration. We also work with and through the SolidariTerr' co-solidarity system set up by VINCI Construction Terrassement in 2016, which encourages employees to support a local civic organisation working on education, employment, the environment or mobility for people living in social exclusion in the areas where the company is working. The goal is to enroll 10% of employees in the programme. Lastly, ISSA (Sogea-Satom initiatives for Africa), set up in 2007 under

auspices of Sogea-Satom, supports the economic and social development of local regions and communities in Africa. It does this in two ways – providing financial support for micro-economic, healthcare and education projects; and supporting skills sponsorships that enable its employees to be personally involved in meaningful volunteer work. The goal of the programme is to foster the economic, social, educational, nutritional and energy autonomy of local communities. The ISSA programme works in a wide variety of fields with special attention to projects

carried out by women. Another feature of the programme is its long-term approach. Over a period of 10 years, more than 200 projects have received support in 21 countries, over 200 sponsors have been involved and €3.6 million have been provided in funding, an average of €15,000 per project. In 2018, the programme continued to expand, with a first project supported in Equatorial Guinea involving a cold saponified soap production unit to make a product that better meets the expectations of local consumers.

Fostering long-term employment

VINCI Insertion Emploi (ViE) is an integrated social enterprise set up by VINCI in France in 2011. The structure provides practical support for Group entities, including those within VINCI Construction, to help them meet their social requirements and obligations with respect to work integration, disability and solidarity purchasing. ViE does this by devising

innovative solutions to help Group entities manage integration clauses and optimise their impact. This serves a dual purpose: it enables Group entities to make strong social commitments by integrating vulnerable people; and it supports the long-term unemployed by providing consistent, skills-oriented training to help them continue in their job following project completion.

This programme applies across France as a whole. Examples in southern France include the CAP3000 project in Saint Laurent du Var, and in the Paris region the Grand Paris Express programme, for which VINCI Construction has earmarked between 7% and 10% of all hours worked to integration of the long-term unemployed, while the customer, Société du Grand Paris, requires only 5%.

137

projects supported in France

735,000

hours of work integration

1,993

people supported



LIVA, a social joint venture focused on worksite logistics

LIVA was set up in April 2018 to provide logistics services for building projects while meeting the integration requirements included in a large number of contracts.

Set up at the initiative of the Fondation d'Entreprise VINCI pour la Cité, LIVA, a social joint venture held by the ARES integration group, the majority shareholder with 51% of the share capital, and VINCI Construction France, also strives to foster access to employment by offering stable jobs and personalised support to people in difficulty.

The goal is also to professionalise worksite logistics jobs and innovate by creating a comprehensive logistics solution based on digital technology and offsite logistics management. In pursuit of its three goals - social inclusion, co-construction of access to employment and professionalisation of worksite logistics - LIVA will employ about 50 people in integration jobs by the end of 2019.

Supported by the VINCI Construction France and ViE teams, Saad Abderrezag was hired by Dumez Côte d'Azur under permanent contract in July 2018 after completing the "Parcours Maçons" bricklayer training programme at the CESAME Plan de Campagne training centre in Les Pennes Mirabeau. Currently he is working on Phase 2 of the CAP3000 shopping centre in Saint Laurent du Var, France.

ATTENTIVE TO THE PLANET

To help tackle the intensifying climate challenge, VINCI Construction has made green growth one of its goals. Like the VINCI Group as a whole, it has adopted a three-pronged approach focused on energy and CO₂, the circular economy, and water and biodiversity, and made progress in all three areas.

Combatting global warming

In its commitment to the energy transition as a design-build company, VINCI Construction strives to reduce the environmental impact of its buildings without curtailing the comfort of the people who live and work in them. It created its ActivSkeen brand with this goal in mind. The brand covers rollout of building-integrated photovoltaics (BIPV) and implementation of dynamic glazing solutions - two moves that will ultimately transform the building envelope. Going forward, this programme



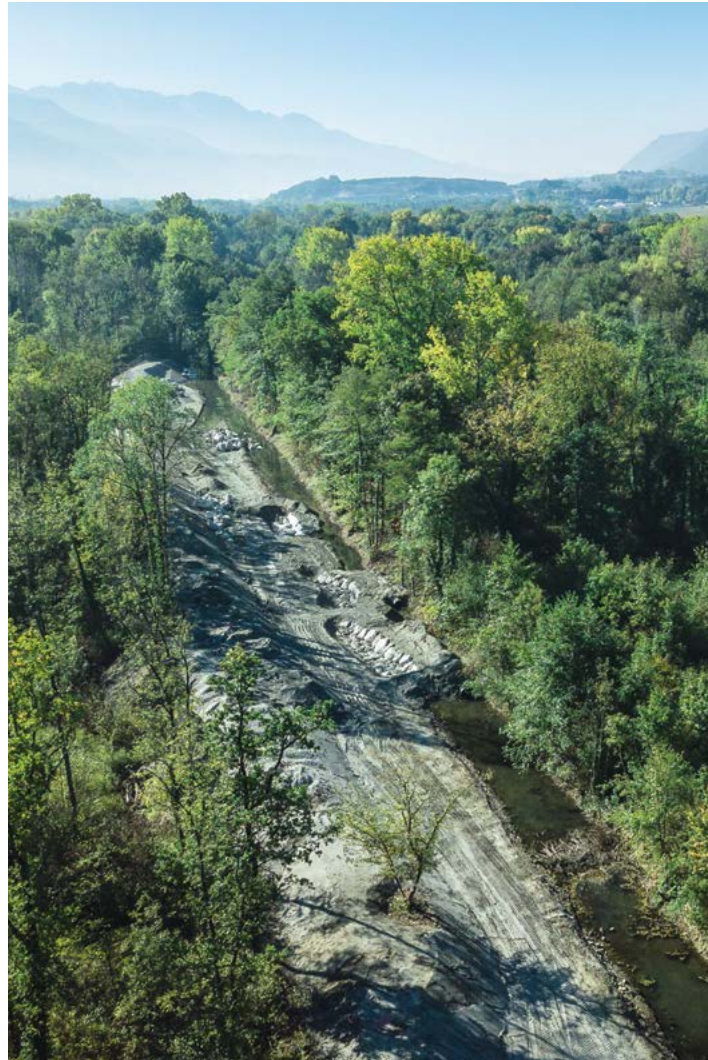
is expected to encourage the development of energy-positive buildings, which will help make city blocks or entire neighbourhoods energy self-sufficient. ActivSkeen, which has acquired European specialist Ertex Solar, is now positioned as a leading BIPV provider.

Developing climate resilience

The creation of Resalliance is a further significant step forward in tackling the climate challenge. Resalliance is a design and engineering office working on the vulnerability of regions and buildings to environmental change and climate events. It supports contracting authorities by developing climate resilience solutions aimed at adapting projects and infrastructure and their use to climate change realities.

Wood and concrete, materials for the future

With Arbonis, our subsidiary specialising in wood construction,



In 2018 Equo Vivo carried out the hydromorphological restoration of the Glandon riverbed in France to diversify flow, improve water quality and restore biodiversity in the river and its surroundings.

VINCI Construction has made wood a fully-fledged building solution. Combined with concrete and steel, wood is both a promising material based on its intrinsic properties and an advantageous way to decarbonise construction. Also noteworthy is the fact that concretes are changing and are now shown in the plural.

The latest innovations developed by VINCI Construction, such as very low-carbon concrete, have made substantial progress in reducing their environmental impact. All these new materials gradually coming into use are a concrete demonstration of our commitment to addressing climate issues.

Lending momentum to the circular economy

Recycling waste from building construction and organising circular economy models are important goals. VINCI Construction, already involved in the circular economy via targeted activities – introduction of alternative modes of transport to replace road haulage in worksite rubble removal where possible; waste-to-energy processing of plant waste; reduction in waste production; optimisation of water and energy consumption;

and re-use of materials in its projects – took the circular economy to a new level with the creation of Waste Marketplace. The digital solution was developed at Leonard as an intrapreneur programme. It organises, expedites and facilitates waste management. The application combines traceability, safety and economy. It uses an algorithm to order waste removal to the destination that can recycle it at lowest cost. The solution was introduced on 43 worksites in 2018.

“VINCI CONSTRUCTION HAS MADE A PRACTICAL, LONG-TERM COMMITMENT TO THE ENERGY TRANSITION WITH A STRONG FOCUS ON RESILIENCE.”



Equo Vivo showcases environmental engineering

The Equo Vivo range of environmental engineering solutions and services was launched in September 2017. It focuses exclusively on protecting and restoring biodiversity, designing and building environmental facilities, and maintaining ecological continuity. In 2018, Equo Vivo won about 40 projects across France, and its expansion is expected to continue in 2019.

Urbalia gives urban biodiversity pride of place

Urbalia, founded at the end of 2017 as a startup focused on the inclusion of biodiversity and urban agriculture in development projects, supports project developers wishing to help conserve and restore nature in cities. Its solutions – vegetation plantings, reduction of urban heat islands, alternative rainwater runoff management, integration of urban agriculture solutions – combine biodiversity protection, useful production and expanded urban resilience.

Waste Marketplace is an innovative digital waste removal solution.

ATTENTIVE TO OUR EMPLOYEES

With our “zero serious accident” safety policy and our human resources policy geared to talent development and job satisfaction, we strive to create a workplace environment that fosters efficiency and employee wellbeing.



VINCI Construction continues to pursue its objective of becoming the undisputed benchmark in safety.

Accentuating the safety culture

For several years we have been putting the quest for safety excellence into practice and aiming for “zero serious accidents” by developing a strong safety culture at all levels of the company. The current priority is to identify

major risks inherent in each of our activities so as to avoid serious accidents. To help achieve this goal, the major “Managing with Safety Focus” training programme was introduced, in two stages: first for about 400 top managers, and subsequently for the operational teams within each VINCI Construction entity. Three years from now, nearly 9,000 managers will have received the training. This training, which combines information modules with a teaching method, is structured

in three major sections. First: awareness of organisational and human factors to support inclusion of worksite organisation and human factors in health and safety management. Second: dissemination of the “Productive and Safe” scheme to be applied on all worksites. Third: introduction of a root cause analysis programme to determine the causes of accidents or potentially serious events, understand why an accident occurred and take remedial action to prevent its recurrence.

10,612

people hired in 2018

over 9,000

managers will have received “Managing with Safety Focus” training three years from now



All VINCI Construction entities share a common safety culture. “Productive and Safe” makes safety an integral part of all worksites at all stages of the project.

VINCI Construction is doing its utmost to instil the safety culture in day-to-day operations and over the long haul. The goal is to protect everyone involved in our projects and boost our overall performance.

Providing long-term talent support

To become the undisputed benchmark in construction, we also need an ambitious human resources policy geared to developing talent, encouraging professional mobility and providing training. With CAP for Talents, VINCI Construction has taken a series of initiatives designed to train and promote employees and to foster their mobility. CAP for Talents is dedicated to enhancing jobs and building attractive career paths. It comprises exchange and training programmes to support the company’s three major operational segments: CAP for Projects for project directors,

CAP for Engineering for engineers and CAP for Management for the company’s top managers. In 2018 VINCI Construction continued to work on the professional development of each of these groups with the goal of sharing the company’s approach, methods and culture and beyond that increasing

its capacity and efficiency. The “Works Management” training course was specifically updated and rolled out for this group.

Becoming a learning company

In a world undergoing a wide variety of transformations,

VINCI Construction stresses agility and positions itself as a learning company. This goal is reflected in our proactive training policy and our high-quality range of training programmes available to all employees in France and abroad.



PROGRESS IN FOUR AREAS, TO BENEFIT OUR EMPLOYEES

Our corporate culture builds on entrepreneurship, the concept of excellence and determination to make progress. A number of initiatives that put these goals into practice are described below.



A different approach to safety awareness

A number of entities have taken innovative initiatives to improve the safety of their teams. For example, VINCI Construction France has developed a manager training programme focused on organisational and human factors. The training simulates a task ordinarily performed by workers to give the

manager an understanding of the difficulties that workers may encounter in following the prescribed procedures in the field. VINCI Construction Grands Projets for its part set up accident analysis and investigation training with the goal of helping the teams carry out in-depth investigations of major accidents.

6th International Safety Week

International Safety Week is a highlight of the safety awareness and support programme at VINCI Construction. The eighth edition, held in October 2018, was focused on "Productive and Safe". Each worksite was asked to think about ways to put the programme's five steps

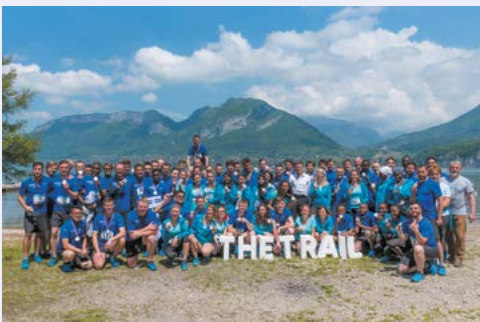
into practice and roll them out in the field. The event was an opportunity for widespread discussions between teams from different entities and different countries. Once again, it enabled employees to share tools, initiatives and best practices to emulate.



The Trail, a resounding success

In 2018, VINCI Construction organised “The Trail by VINCI Construction” to reach out to young graduates. The international competition drew some 1,200 students from around the world, who were asked to think about the construction sector of the future and who submitted outstanding projects. The finals, held at Leonard, the VINCI Group’s insight, foresight and innovation platform, brought

together 56 brilliant finalists who subsequently took part in a sports event on the banks of Lake Annecy. Following the competition, which was won by a team of students from INSA Lyon, the company, which was pleased with the image and attractiveness fallout from the event, decided to repeat the challenge at the start of the next school year. Many applicants were recruited following the competition.



An action plan to promote diversity

Continuing the OPEN by VINCI Construction programme initiated in 2018 to increase the proportion of women employees, we will be launching our gender equality plan in 2019.

The goal of the plan is to attract and retain more women at all levels of the company. It pays special attention to targeted action in partner schools and to making a coaching programme available to future women directors to pave the way for their taking on responsibility in top operational management positions.

WORKING WITH YOU TO BUILD A STORY WITHOUT BORDERS

VINCI Construction's outstanding projects around the world included buildings and infrastructure designed and built in 2018 that suitably addressed the major issues facing our society – global warming, population growth, burgeoning urbanisation and increasing demand for mobility.

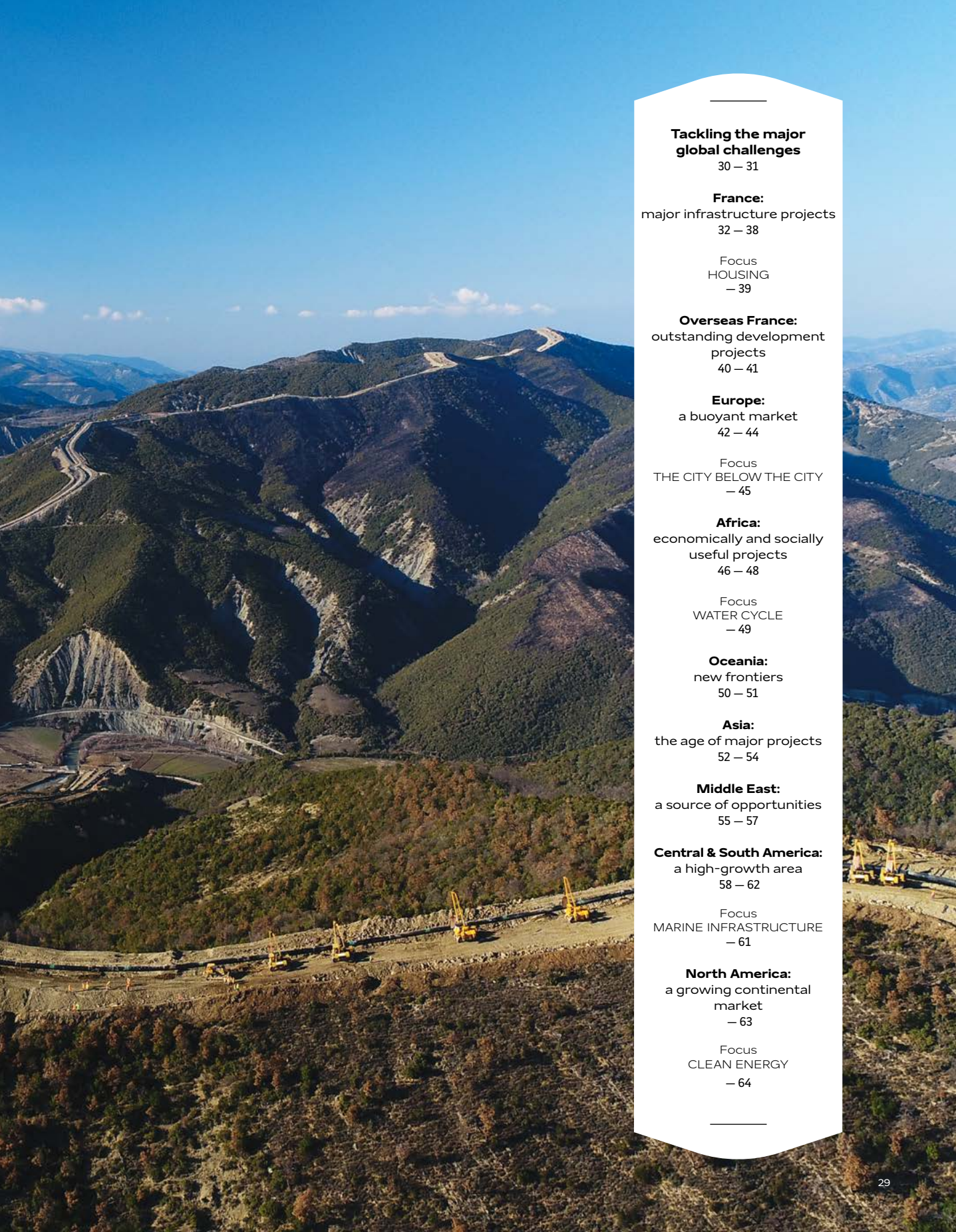
1,820 metres

The HDI (Entrepose Group) teams set a new world record in early 2018 with the "single shot" directional drilling of a 1,820 metre long 48-inch pipeline under the Axios River in Greece. Overall project handover is set for mid-2020.

The Trans-Adriatic Pipeline project, which will bring natural gas from Azerbaijan to Italy to supply Europe with natural gas starting in 2020, continues apace. Spiecapag (a subsidiary of Entrepose) and Bessac (a subsidiary of Soletanche Bachy) are working on the project, which is complex due to steep slopes and difficult geology, and on which they are responsible for three onshore pipeline works packages in Greece and Albania.

150,000

As part of its commitment to help conserve biodiversity, Spiecapag introduced 150,000 plants of varying species supplied by local nurseries. The operation, combined with erosion control and a hydroseeding system, revegetated the pipeline alignments.



Tackling the major global challenges

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10

billion inhabitants by 2050

**50%
increase**in water demand between
now and 2050

The world of the future will be warmer and more densely populated, urban, mobile and uncertain. These major changes entail new challenges, which VINCI Construction strives to tackle within its field of expertise.

Buoyant markets

With population growth and changes in society, notably the number of single-parent families and widespread mobility, housing needs are steadily increasing. In 2050, there will be nearly 10 billion people in the world, with two-thirds of the world population living in urban areas. Housing remains a buoyant

sector for VINCI Construction. With growing urbanisation, cultural and sports facilities are being provided for city-dwellers and increasingly complex urban facilities such as stadiums, museums and educational establishments are being built. They meet increasingly diverse patterns of urban life and help boost the attractiveness of cities. VINCI Construction is helping to build them in France and abroad. Our iconic projects such as the Louis Vuitton Foundation building designed by Frank Gehry in Paris and the Cité du Vin in Bordeaux boost the economies of the areas that host them. They also make the city a more pleasant place in which to live.

Transport infrastructure

Urbanisation and expanding mobility combine to drive very strong demand for transport infrastructure around the world. With the growth of increasingly dense urban areas, VINCI Construction has begun working on the city's "groundscape".

The point is to use the city's underground and bring it to life in order to decongest city centres, limit travel and create a more sustainable living environment. This has resulted in strong demand

for road and metro tunnels to extend underground transport networks. Along with new ways to move of people and goods, increasing attention is being paid to major crossings, a market in which VINCI Construction is also positioning itself.

Water cycle

Water infrastructure is also an increasing focus of attention. In a world in which 750 million people still have no access to safe water and in which water demand is set to increase



VINCI Construction won the first civil engineering works package on the Line 14 South extension that will connect Paris with Orly Airport.

TACKLING THE MAJOR GLOBAL CHALLENGES

VINCI Construction's growth momentum continued in 2018 in virtually all our markets. With more than 30,000 projects of all types, we are able to increasingly make the most of our design-build positioning to tackle the major changes taking place throughout the world in our eight in our eight business areas.

**“WITHIN ITS FIELD OF EXPERTISE,
VINCI CONSTRUCTION STRIVES TO HELP
ADDRESS THE MAJOR ISSUES
FACING TODAY’S WORLD.”**

by 50% between now and 2050, water projects are continuing to expand. VINCI Construction builds on more than 100 years of experience to help provide access to safe water and sanitation. A variety of projects have been carried out in recent years in Africa, Asia and mature economies such

as France and New Zealand to combat water stress, improve water networks and treat and discharge wastewater.

Climate resilience

To address the climate challenge, renewable and nuclear energies are set to expand during the

21st century. They are one way to meet increasing worldwide energy demand and drive the energy transition, which requires a reduction in dependence on fossil energy and the introduction of an energy mix that generates less CO₂. VINCI Construction was involved

in the ITER programme in Cadarache, which is aimed at demonstrating the scientific and technical feasibility of fusion energy by reproducing the reaction that fuels the stars. If the programme succeeds, fusion could provide the world population with an inexhaustible source of energy.



Construction of the experimental ITER nuclear fusion reactor, one of the world’s largest nuclear research programmes. VINCI Construction leads a consortium working on the project.

FRANCE: MAJOR INFRASTRUCTURE PROJECTS

MARSEILLE

A colourful tower

THE PROJECT IN A NUTSHELL

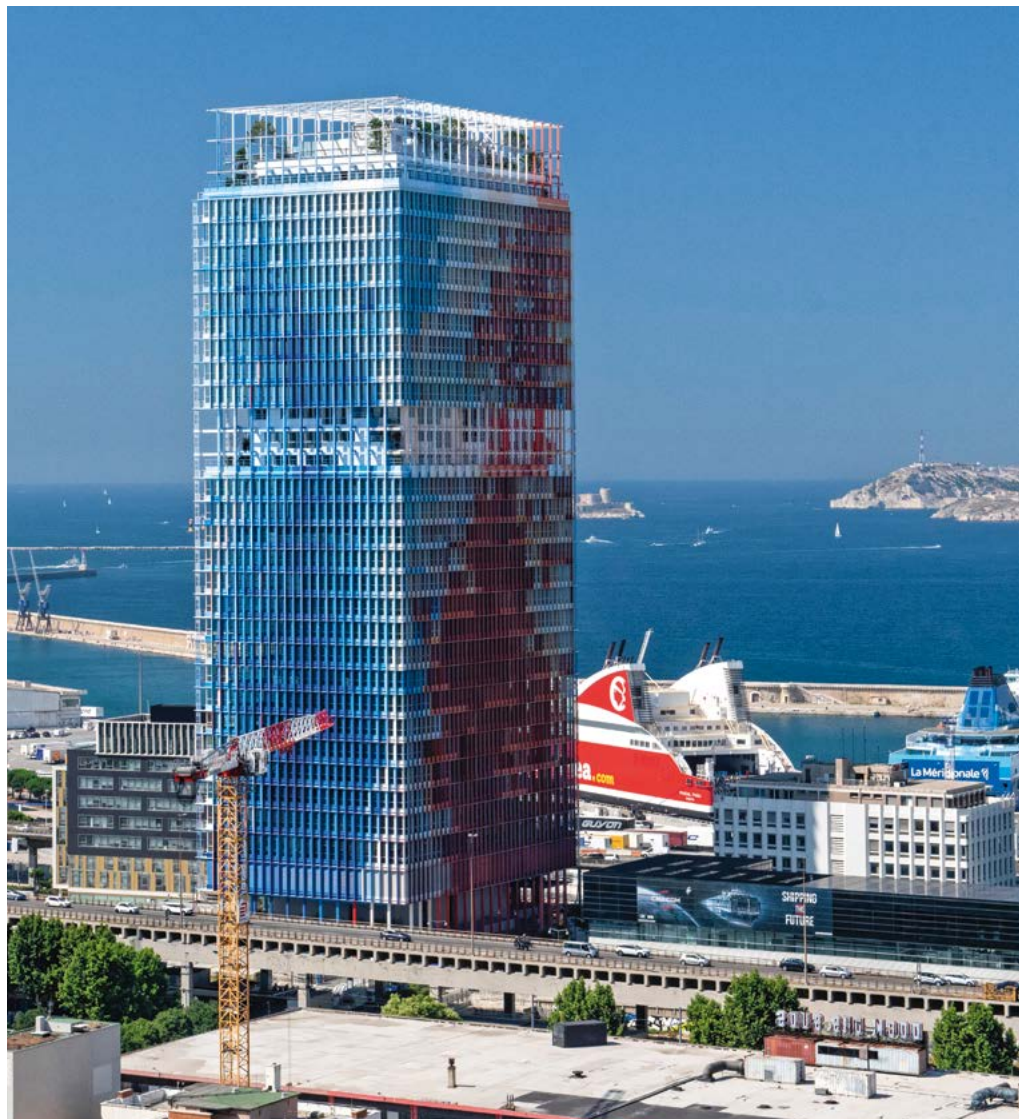
The 135-metre Marseillaise high-rise building, the first Quais d'Arenç office tower, was inaugurated in October 2018. It comprises 35,000 square metres of office space on 31 levels. It also contains shops on the ground level, a shared company cafeteria, a concierge desk, a day-care centre, a fitness centre and an underground car park.

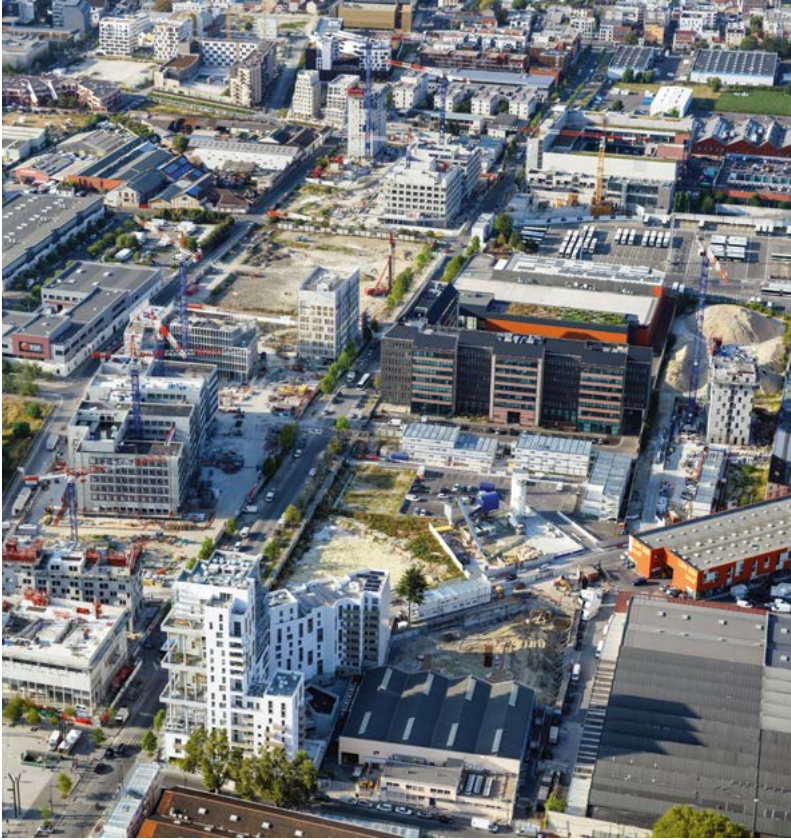
STANDOUT FEATURES

The Marseillaise tower, part of Europe's largest urban renewal programme, built in a narrow site, was a feat of engineering. The air- and watertight facade is made of ultra-high performance fibre-reinforced concrete (UHPFRC) elements. It also boasts compliance with top energy performance standards.

KEY PARTICIPANTS

GTM Sud and Travaux du Midi, with Botte Fondations (VINCI Construction France).





AUBERVILLIERS

Building a city “within the city”

THE PROJECT IN A NUTSHELL

As a future university humanities and social sciences hub, the Condorcet Campus buildings, with a total floor area of 64,600 square metres, will house the National Demographics Institute, research and training facilities, a symposium centre, a residence for guest researchers, a project hotel, a university canteen, campus support facilities and 451 student housing units.

STANDOUT FEATURES

To improve the project’s biodiversity potential and meet sustainable city goals, VINCI Construction is using the innovative Biodi(V)strict® solution on the project. The diagnostic tool developed via the ParisTech-VINCI Chair and now fully integrated in the Urbalia startup includes environmental objectives in a design-build programme.

KEY PARTICIPANTS

Adim Paris Île-de-France, Bateg and Sicra Île-de-France (VINCI Construction France).

GARD DEPARTMENT

Ongoing major remediation project

THE PROJECT IN A NUTSHELL

As part of the rehabilitation of an industrial brownfield site previously used to manufacture pesticides, REMEA teams have been conducting a major soil and water remediation project since the spring of 2018.

STANDOUT FEATURES

Because the site lies directly adjacent to a residential area, the project took special steps to protect it. These included confining earthworks within a temporary building, constantly watering roadways and worksite areas, covering over excavated earth to avoid pollution, and removing and disposing of 27,000 cu. metres of polluted soil following on-site analysis.

KEY PARTICIPANT

REMEA (Soletanche Freyssinet).



LYON

Successful transformation of a benchmark hospital complex

THE PROJECT IN A NUTSHELL

Citinéa handed over the Groupement Sanitaire de l'Ouest Lyonnais hospital complex to the French Red Cross in September 2018 following more than two years of works. The complex now brings three of the customer's Lyon facilities together at a single site: a geriatric hospital, a short-term care and rehabilitation unit and a post-operative rehabilitation centre.

STANDOUT FEATURES

The design-build project involving a combination of occupied site refurbishment and new-build extension works was particularly complex since the new building was to be incorporated in the existing hospital, which was itself undergoing renovation. Patients were moved from one part of the structure to another during the work.

KEY PARTICIPANT

Citinéa (VINCI Construction France).



STRASBOURG

Start of work on the western bypass

THE PROJECT IN A NUTSHELL

The Strasbourg western bypass (COS) project covers construction of a 24 km section designed to decongest the A35 motorway and provide continuity of the north-south motorway artery in Alsace.

The new section added to the existing road network, which is essentially a star-shaped network around the city, will boost traffic safety and enhance the attractiveness of the region.

STANDOUT FEATURES

On the COS project, which got under way in September 2018, VINCI Construction is responsible for design build construction on behalf of the concession company, Arcos (VINCI Autoroutes). The project covers a dual two-lane carriageway and some 50 engineering structures. Handover is set for 2021.

KEY PARTICIPANTS

Dodin Campenon Bernard; VINCI Construction Terrassement; GTM Hallé and Sogea Est (VINCI Construction France).



📍 PARIS

A new metro line to interconnect the region

THE PROJECT IN A NUTSHELL

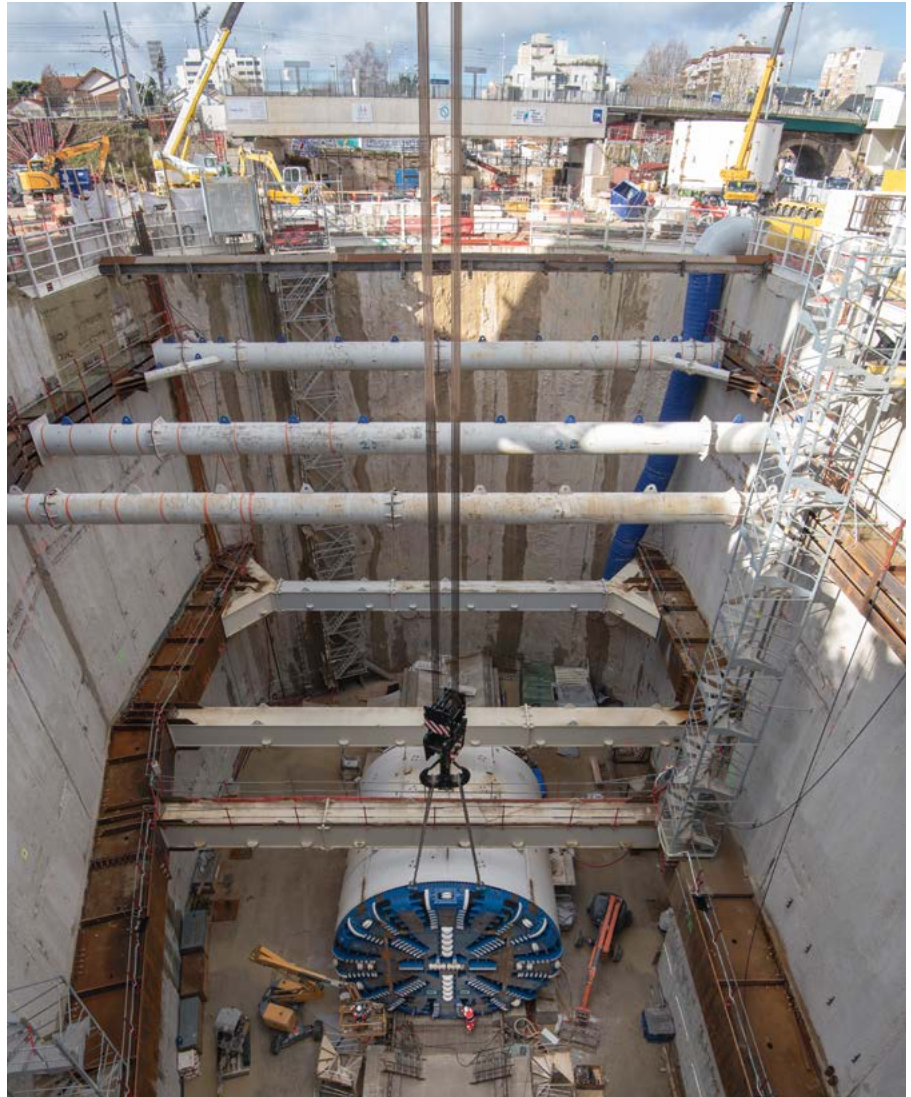
As part of the Grand Paris Express programme, more than 200 km of new metro lines and 68 new stations will be built and interconnected with the existing transport network. The programme will overhaul mobility in the Greater Paris region in coming years. VINCI Construction, which is taking part in the huge infrastructure programme, won, among other contracts, the T3C works package on Line 15 South between Fort d'Issy-Vanves-Clamart and Villejuif-Louis Aragon.

STANDOUT FEATURES

With more than five stations to be built and eight tunnels to be bored within a densely-populated urban area, the VINCI Construction entities working within a joint venture are making the most of their deep underground works and major project management expertise. A vertical tunnel boring machine, which is particularly well-suited to this type of context, was used for the first time in France. The innovative machine, developed by Herrenknecht, can bore a vertical shaft and install arch segments to support it without requiring any personnel inside the structure, and thus ensure complete safety.

KEY PARTICIPANTS

VINCI Construction Grands Projets;
Dodin Campenon Bernard;
VINCI Construction France;
Botte Fondations.





Substantial extension for the port of Brest

THE PROJECT IN A NUTSHELL

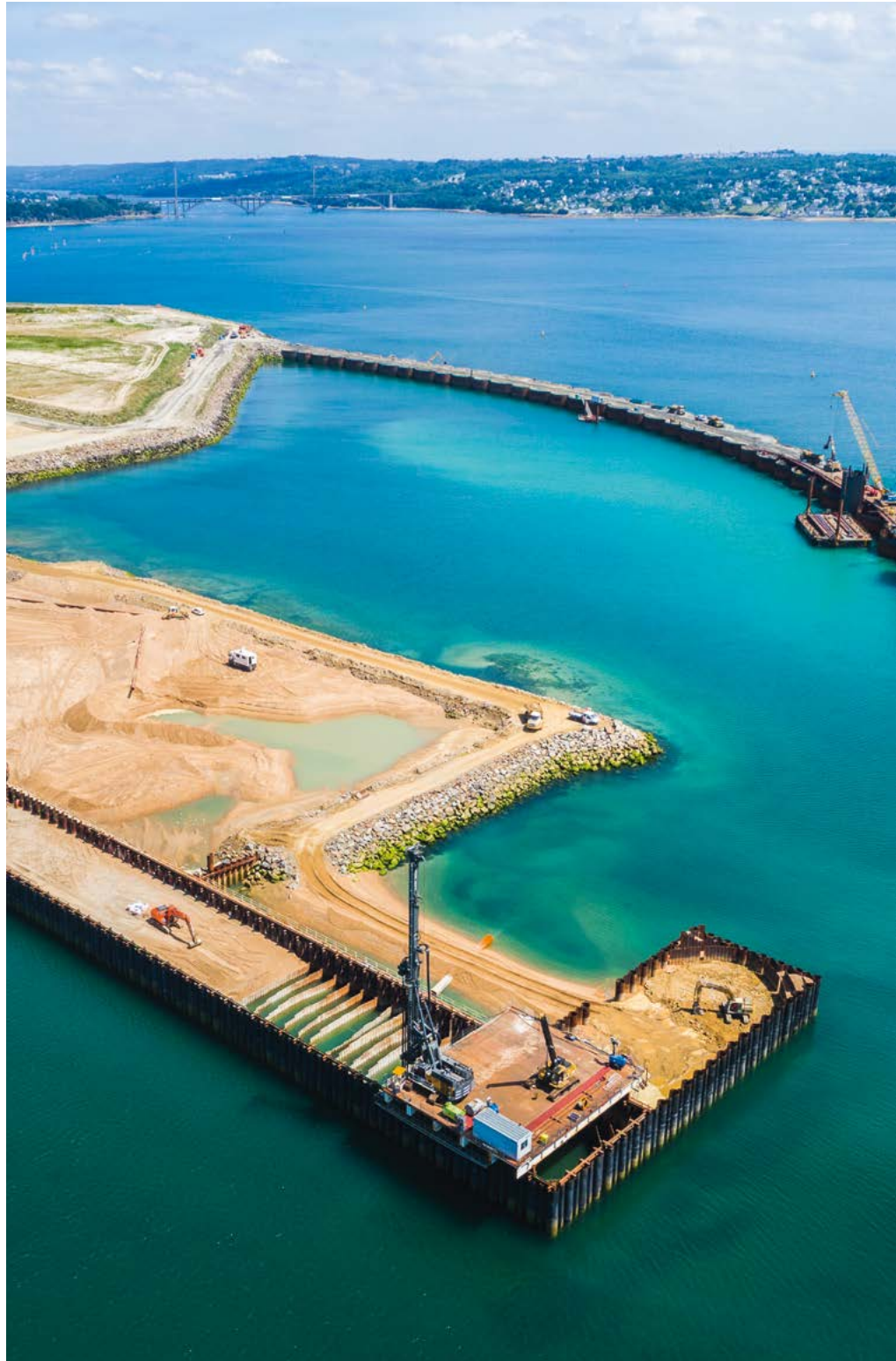
Marine works to extend the commercial port of Brest, initiated in early 2017, continue. The project is designed to create new industrial areas in the land set aside to the east of the port. A quay with a length of nearly 400 metres and a storage area for heavy loads directly abutting it and connected to the port facilities are under construction.

STANDOUT FEATURES

The polder is being built on highly compressible soil, which poses several challenges, notably geotechnical. Special techniques such as soil mixing, jet grouting and vertical drains are therefore being used in order to avoid dredging the existing silt and protect the environment. The structure, set for completion in late 2019, will be used for Renewable Marine Energy activities, a booming sector.

KEY PARTICIPANTS

VINCI Construction Maritime et Fluvial; VINCI Construction Terrassement; Menard and GTM Ouest.



RENNES

New metro line boring works completed

THE PROJECT IN A NUTSHELL

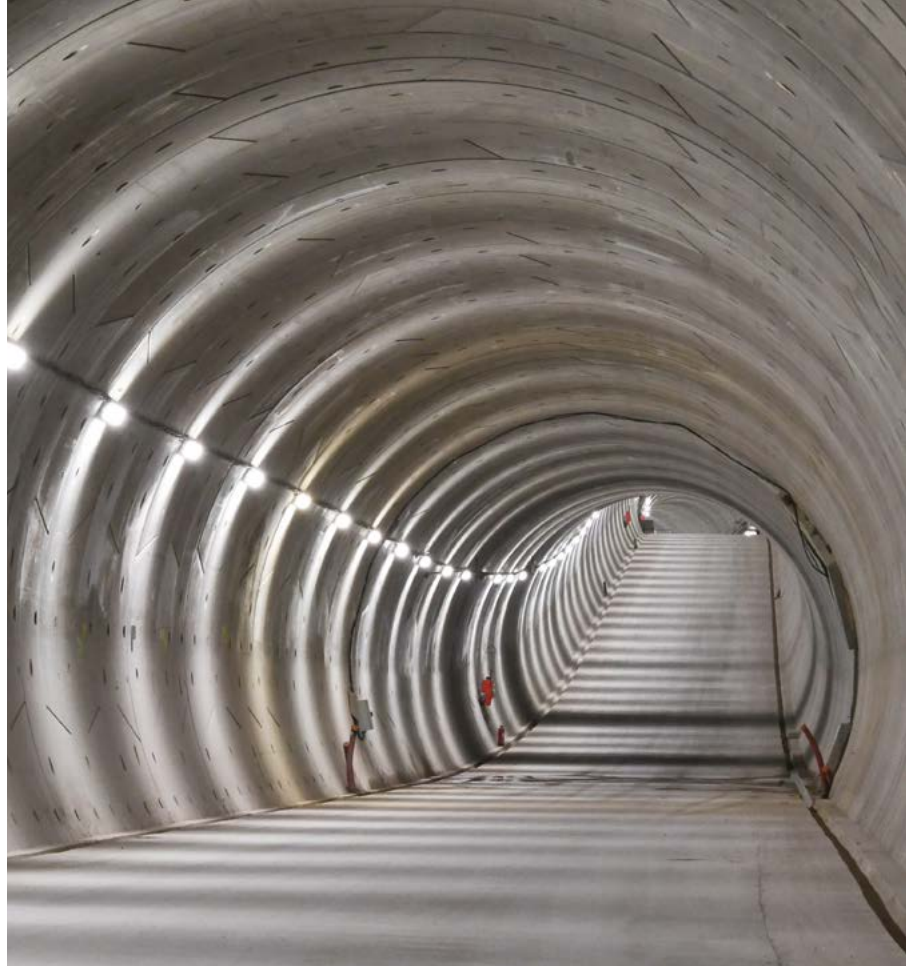
In 2018, VINCI Construction teams completed structural and civil engineering works package 1 of Line B of the automated metro that will connect the southwestern and northeastern parts of the Greater Rennes area. Set to begin operating in 2020, the new line will serve 15 stations and significantly increase mobility for residents of the metropolitan area.

STANDOUT FEATURES

One goal of the project was to devise innovative technical solutions to tackle the geological challenges of the local terrain. The line runs deep underground for 8.5 km and the tunnel was bored by the Elaine TBM specially designed for the project. Nearly 30,000 arch segments were installed.

KEY PARTICIPANTS

Dodin Campenon Bernard; GTM Ouest and Botte Fondations (VINCI Construction France).



CHAMBORD

Completion of the Relais de Chambord restoration

THE PROJECT IN A NUTSHELL

Located in Europe's largest enclosed forest park, the Relais de Chambord underwent an in-depth restoration involving structural refurbishment and an extension of the building. The hotel, which stands opposite the chateau built by Francis I, now has a new 4,500 sq. metre wing with 60 rooms.

STANDOUT FEATURES

The comprehensive transformation of the site, which now has four stars, was carried out under auspices of the Bâtiments de France and architect Jean-Michel Wilmotte.

KEY PARTICIPANT

Sogea Centre (VINCI Construction France).

LA COURNEUVE

Residential units to revitalise a neighbourhood

THE PROJECT IN A NUTSHELL

Sicra Île-de-France built 132 housing units on a general contracting basis for Plaine Commune Développement in the new Marché block in La Courneuve. The project, inaugurated in June 2018, is made up of units for sale and social rental units and is designed to help revitalise the Quatre Routes neighbourhood and return it to its role as the hub of the area.

STANDOUT FEATURES

To carry out the neighbourhood renewal in a densely populated urban environment, the VINCI Construction France teams took a bold approach and worked with the Béal & Blanckaert architecture firm and artist Dominique Dehais. Coloured facades based on a set of 12 colours inspired by twelve-tone music were designed to give each building its own identity.

KEY PARTICIPANTS

Adim Paris Île-de-France;
Sicra Île-de-France
(VINCI Construction France).



"HOUSING AT THE HEART OF URBAN DEVELOPMENT."

HUGUES FOURMENTRAUX, CHAIRMAN OF VINCI CONSTRUCTION FRANCE.

The city is now being built above and below the city. Everything must be meaningful in the long term. We have embarked on a move to combat sprawl, which we know is harmful in every respect, and to design buildings that can be converted to different uses throughout their lifecycle.

A strategic activity

The new-build and refurbished housing market (retirement homes, student housing, rental housing, first-time homeownership, etc.) is a major

focus at VINCI Construction France, in terms of volume, sustained activity, potential margins and connection to the regions. Our expertise is well known and well respected and we are constantly challenging ourselves to improve it.

Focused on proposing new solutions

Every company of our size by definition has a role to play in society and we are called on to do something about the housing issue in France and more particularly first-time homeownership. Our response is our Primméa range of housing solutions. Primméa is based on a business model that combines quality and cost control.

It is primarily designed for first-time homebuyers seeking new-build, functional, pleasant housing priced competitively below local market.

We designed it with and for the occupants, who now have a dedicated collaborative platform where they can express their preferences. Primméa is a compelling and concerted way to overcome the shortage of affordable housing. The Primméa range, which has recently been expanded, is a good example of innovation with a social purpose that benefits the community. In 2018, 39 units in the Filcosy complex in Tourcoing were completed and work continued on residential projects in Évreux (Pannette block), Vernon (Nuances), Montpellier (Papyrus) and Nancy (L'EssenCiel), among others. Overall, 1,300 Primméa units are on the drawing board or have already been delivered.

Helping build the sustainable city

VINCI Construction is more broadly helping to develop the city of the future by applying its construction approach based on optimum quality, exemplary management and productivity gains. The many projects handed over in recent years - including residential properties, inter-generational housing, student housing, social and energy refurbishment and wood apartment houses, for which demand has been growing and which Arbonis, the VINCI Construction France subsidiary dedicated to wood construction, works to fulfill - are testimony to its momentum.



OVERSEAS FRANCE: OUTSTANDING DEVELOPMENT PROJECTS

REUNION ISLAND

The New Coastal Highway becomes a reality

THE PROJECT IN A NUTSHELL

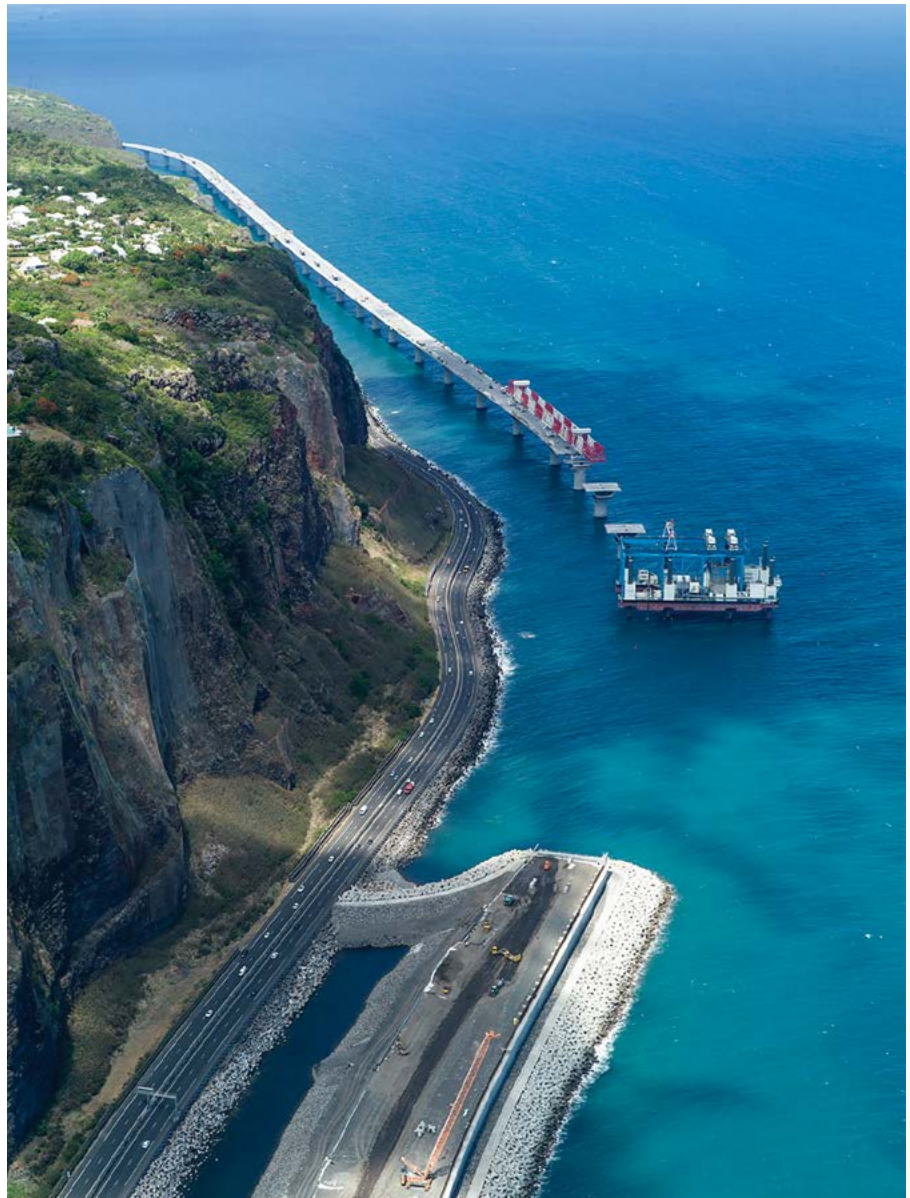
The New Coastal Highway, a strategic economic and traffic safety project, will connect the cities of Saint-Denis and La Possession when it is completed in 2020 and will completely redefine traffic flows on the island.

STANDOUT FEATURES

The new road infrastructure is a unique project – unique in its technical features, with the construction of a 5.4 km offshore viaduct along the coast and a 3,600 metre 2x3 lane causeway; and unique in its attention to the environment, including design and construction methods.

KEY PARTICIPANTS

VINCI Construction Grands Projets; Dodin Campenon Bernard; Freyssinet; VINCI Construction Terrassement; SBTPC (VINCI Construction Dom-Tom).





REUNION ISLAND

A first urban cable-car on the island

THE PROJECT IN A NUTSHELL

To facilitate travel in Saint Denis de la Réunion and decongest its roads, the city decided to build an urban cable-car. The novel 2.7 km structure, designed to connect three neighbourhoods, will be up and running by the end of 2019.

STANDOUT FEATURES

To carry out the project, a joint venture was set up, within which Sogea Réunion is in charge of civil engineering and construction of the stations.

KEY PARTICIPANT

Sogea Réunion (VINCI Construction Dom-Tom).

NEW CALEDONIA

The Pacific Plaza tower overlooks the island

THE PROJECT IN A NUTSHELL

Located in the city centre facing the sea in Nouméa, the tower has just been completed. Designed with contemporary architecture, it is 100 metres high and contains 135 apartments. The project also included construction of an office building and a car park.

STANDOUT FEATURES

The Pacific Plaza is the island's tallest-ever building. Due to its height, its construction called for six months of painstaking preparation. The outsized – by New Caledonian standards – project entailed strong logistical and organisational challenges, which the SCB teams successfully met.

KEY PARTICIPANT

SCB (VINCI Construction Dom-Tom).



EUROPE: A BUOYANT MARKET



 **POLAND**

A new skyline in Warsaw

THE PROJECT IN A NUTSHELL

Warbud is building a new high-rise in the centre of Warsaw next to the Skyliner and Mennica Legacy buildings, also built by the Polish subsidiary. The new Varso Tower will have an unprecedented height of 310 metres and 50 storeys. It will also have four underground levels, connected with the central station.

STANDOUT FEATURES

The tower will have a total floor area of 110,000 sq. metres and a reinforced concrete structure. Once completed, the building, which is aiming for BREEAM Outstanding, certification, will be the tallest in the European Union.

KEY PARTICIPANT

Warbud
(VINCI Construction International Network).



 **BELGIUM**

Rejuvenated wastewater treatment plant

THE PROJECT IN A NUTSHELL

The Brussels South wastewater treatment plant, which handles about 25% of the region's wastewater, has undertaken an extensive upgrade to eliminate nitrogen and phosphorous from water in compliance with regulations. The plant was started up at the end of 2018 following four years of works.

STANDOUT FEATURES

For the exceptional upgrade project, the VINCI Construction Grands Projets teams built an extremely efficient membrane ultrafiltration system that produces the cleanest water available in the market.

KEY PARTICIPANT

VINCI Construction Grands Projets.



 **GERMANY**

High-speed rail on a roll

THE PROJECT IN A NUTSHELL

The Deutsche Bahn (German railways) awarded works package 1.4 of the high-speed line being built between Stuttgart and Ulm (S21 high-speed line) to VINCI Construction Terrassement. More specifically, the contract covers the section between the Stuttgart airport and the city of Wendingen. It includes 5.4 km of earthworks-drainage works, 7.5 km of lateral roads and 8,500 sq. metres of noise barriers.

STANDOUT FEATURES

The line is part of the vast "Stuttgart 21" urban and rail transport project designed to decongest and modernise the city's railway node. The S21 is a major constituent of the Magistrale for Europe high-speed line that will ultimately connect Paris and Budapest.

KEY PARTICIPANT

VINCI Construction Terrassement.

BELGIUM

The Charleroi waste-to-energy plant spruces up

THE PROJECT IN A NUTSHELL

The Charleroi waste-to-energy plant, which has been in operation for three decades, decided to replace one of its two incineration lines. The project has a dual purpose: to upgrade the facility and to install state-of-the-art technologies in order to optimise the plant's operation. Industrial commissioning is scheduled in the summer of 2019.

STANDOUT FEATURES

Combustion will be optimised and fume treatment will be switched to a dry process. The new thermal and fume treatment systems will enable the plant to handle 46,500 tonnes of household waste and 8,500 tonnes of industrial waste annually. The resulting energy will be used to generate electricity and heat.

KEY PARTICIPANT

VINCI Environnement (Entrepose Group).



UNITED KINGDOM

Several healthcare facilities handed over

THE PROJECT IN A NUTSHELL

Against a backdrop of investment in modernising the healthcare system, VINCI Construction UK handed over several healthcare facilities in the United Kingdom in 2018: Chesterfield Royal Hospital,

Chase Farm Hospital, Darlington Hospital, Medway Hospital, and the Royal Free Hospital's paediatric unit. VINCI Construction UK also won the Building of the Year award in the 2018 RIBA East Midlands Awards for the NGS Macmillan unit of the Royal Chesterfield hospital.

KEY PARTICIPANT

VINCI Construction UK.

"THE CITY BELOW THE CITY CAN BE A GROWTH DRIVER."

PATRICK KADRI, CHAIRMAN OF VINCI CONSTRUCTION GRANDS PROJETS.

Could you describe the city below the city concept?

Patrick Kadri: The city below the city is an urban space concept that makes different use of the potential of the underground. At a time when land is in scarce supply within cities and urban sprawl is reaching a limit, the idea is to offer solutions that re-think the city and sustainably decongest it.

The city below the city, built in a restricted, densely occupied space, has several benefits. It optimises land use and creates new living spaces by connecting the underground and the surface. It facilitates mobility of people and goods. And lastly, it reduces distances and revitalises the city by providing new functions.

What is VINCI Construction's approach to the city below the city?

P.K. We consider that we have a lot to gain, collectively, from revealing and exploiting the city's underground potential. We can make the most of our geotechnical, special works and underground works capabilities to help develop the city below the city. But our expertise can only be employed if we accommodate life on the surface, and avoid disrupting activity there. Our ultimate goal is for our state-of-the-art techniques to serve wellbeing both within the city and below the city.

What are VINCI Construction's main projects in this field?

P.K. In France, we are working on the western extension of the RER E regional express line and are building a new underground station at a depth of 40 metres. Beyond the technical challenge of supporting the CNIT centre to underpin its foundations, the project is being built without disrupting business activity. It will connect the station with the various transport lines and with shopping areas via direct access under the La Défense esplanade. Another significant example is the Couvent des Jacobins monastery in Rennes, a historic landmark. We gave it a new lease on life by building an underground conference centre beneath it. Instead of building the convention centre on the outskirts where land was available, we gave Rennes a high-tech facility in the city centre while conserving a piece of its history. We also use our expertise to build transport systems, and have bored more than 1,000 km of tunnels around the world. Among other things we are currently working on the Grand Paris Express and its iconic stations. For example, on Line 15 we are working with architect Dominique Perrault on the Institut Gustave Roussy station, which he has designed as "a downward extension of the city" and an "open-air journey 50 metres below ground" with a 70 metre diameter light shaft.



AFRICA: ECONOMICALLY AND SOCIALLY USEFUL PROJECTS



 **EGYPT**

A new dam and enhanced economic attractiveness

THE PROJECT IN A NUTSHELL

The inauguration in August 2018 of the new Assiut Barrage half way between Cairo and Luxor marked the completion of the project, which got under way in 2012. The dam, which regulates the course of the Nile and secures shipping, now also supports irrigation of nearly 700,000 hectares of agricultural land and provides 32 MW of electricity generating capacity.

STANDOUT FEATURES

The VINCI Construction Grands Projets teams achieved the feat of temporarily diverting the course of the Nile to enable concrete work to be carried out on the dry riverbed, even during the annual flooding.

KEY PARTICIPANT

VINCI Construction Grands Projets.



BURKINA FASO

Decongesting the capital via a road interchange

THE PROJECT IN A NUTSHELL

The completion of the northern interchange in Ouagadougou, Niger's largest, is a key stage in the construction of the ring road around the capital. The interchange, located in a densely populated urban area, comprises 14 engineering structures and 22 km of roads. It was inaugurated in November 2018.

STANDOUT FEATURES

More than 1,200 people, of whom 97% were local personnel, were employed on the major project, which took 35 months to complete.

KEY PARTICIPANT

Sogea-Satom
(VINCI Construction
International Network).

NIGERIA

Egina, or deep offshore production

THE PROJECT IN A NUTSHELL

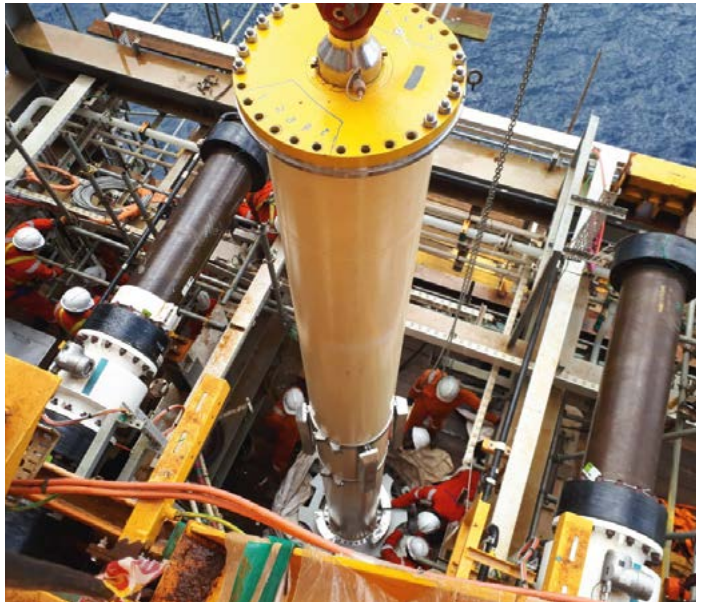
The Egina oilfield lies 130 km off the coast of Nigeria at a depth of 1,500 metres. Entrepouse DBN was selected to carry out offshore hook up of the risers, which consists in installing water injection lines between the production wells and the floating production, storage and offloading unit to pump crude oil to the surface.

STANDOUT FEATURES

This highly technical operation is a necessary prerequisite to production at the field, which started in December 2018. The project, carried out by Total, is strategic for the Nigerian government since Egina will account for nearly 10% of the country's production at 200,000 barrels per day.

KEY PARTICIPANT

Entrepouse DBN (Entrepouse Group).





MOROCCO

A first high-speed rail line

THE PROJECT IN A NUTSHELL

As part of the construction of Morocco's first high-speed rail line between Tangier and Casablanca, Sogea Maroc won the general contract to build the Tangier and Kenitra stations and carry out the associated civil engineering works for bridges and pedestrian overpasses.

STANDOUT FEATURES

The 200 km line, which was inaugurated in November 2018, is an effective way to accommodate strong passenger traffic growth. The two coastal cities of Tangier and Casablanca are now only 2 hours and 10 minutes apart. The project supports the country's economic growth and facilitates rail traffic.

KEY PARTICIPANT

Sogea Maroc
(VINCI Construction International Network).

MOROCCO

Pumped storage of energy

THE PROJECT IN A NUTSHELL

As part of Morocco's renewable energy development and integration plan, VINCI Construction won the contract as lead company to build the Abdelmoumen pumped storage plant 70 km from Agadir. The work, scheduled to last 48 months, got under way in early 2018.

STANDOUT FEATURES

The project is located in a mountainous region and requires substantial civil engineering works, including excavation of two basins and the underground hydroelectric production plant, which is dug into the side of a hill. The 350 MW plant will be reversible and work both in turbine and pump mode. It will contribute to the country's energy independence.

KEY PARTICIPANTS

VINCI Construction Grands Projets; VINCI Construction Terrassement.



"WE OPERATE ACROSS THE ENTIRE WATER CYCLE."

GILLES GODARD, CHAIRMAN OF VINCI CONSTRUCTION INTERNATIONAL NETWORK.

What are the major challenges in the water sector?

Gilles Godard: The most well-known issue is without a doubt access to safe drinking water, especially in Africa and South America. This is a vital challenge that involves collecting, treating and distributing water to the end user. Another challenge affecting most countries

around the world is sewerage and wastewater treatment. This is both an environmental and a public health issue. And a third issue is access to water for industry and agriculture, which require water of suitable quality against a backdrop of increasing consumption.

How is VINCI Construction positioned to tackle these various issues?

G.G. We operate across the entire water cycle via the expertise of VINCI Construction International Network, VINCI Construction Grands Projets and VINCI Construction France. Our recent drinking water projects are aimed at boosting production capacity and securing supply. They include drinking water plants in Burkina Faso, Uganda, Burundi and Cambodia; drinking water system works in Benin; a desalination plant in Mayotte; design-build construction of a water pipeline in Vietnam; and construction of a facility to treat water via biological elimination of nutrients in New Zealand.

We also manage water systems in Mayotte and Jamaica. We are very active in the wastewater treatment sector in Europe, where we have delivered the Brussels-South* and Prague treatment plants and a works package on the Tideway sewer project in London. VINCI Construction has also completed a number of operations in France, including the extension of the Émeraude treatment plant in Rouen and commissioning of the new Morcueil drinking water plant in Dijon using water from a spring. Our teams work as a global solutions integrator to deliver expertise across the entire water sector, from civil engineering to electrical and mechanical equipment and process. This way they can work efficiently with the entire range of participants, either in partnership or in integrated mode.

What prospects do you have for expanding your water cycle activities?

G.G. There are considerable prospects for expansion since the primary goal is to meet the basic needs of the population, contribute to the sustainable development of the planet and help industry and water companies optimise water distribution management. Wastewater treatment now enables us to re-use treated water in industry and agriculture, and we hope to promote this type of circular use. We are also carrying out R&D to minimise our own impact and conserve water resources, which are crucial to our business activity.



* (see p.43)

OCEANIA: NEW FRONTIERS



 AUSTRALIA

A one-of-a-kind bridge to meet a variety of challenges

THE PROJECT IN A NUTSHELL

Seymour Whyte and Freyssinet built the steel and concrete pedestrian and bicycle bridge across the Nepean River. The bridge, which took 28 months to complete, is the country's longest single span crossing, with a total length of 284 metres. It gives pedestrians and cyclists a safe connection between the plains of Penrith and Emu and offers observation platforms, awnings and a terrace to enable them to enjoy picturesque views of the river, the Blue Mountains and the historic Victoria bridge.

STATEMENT

"Building a bridge across such a large span with a single permanent pillar was an enormous challenge. The design, fabrication, transport and installation of the eight main span segments were difficult, but I am pleased to say the project team did an outstanding job."

Steve Lambert, Regional Director, Seymour Whyte-South.

KEY PARTICIPANT

Seymour Whyte (VINCI Construction International Network).

AUSTRALIA

Pipelines in Queensland

THE PROJECT IN A NUTSHELL

In the summer of 2018, Spiecapag Australia completed construction of the approximately 142 km long, 12-inch steel high-pressure section of the Northern Gas Pipeline (NGP) in the heart of Queensland.

The 622 km NGP connects the gas fields of the Northern Territory with gas market customers in the east.

STANDOUT FEATURES

The pipeline boosts the economic and social vitality of Queensland, the country's second-largest state by area and third-largest by population. To complete the project, Spiecapag Australia hired nearly a quarter of the people locally to fill the jobs created by the project.

KEY PARTICIPANT

Spiecapag Australia (Entrepose Group).



NEW ZEALAND

Auckland acquires a new motorway link

THE PROJECT IN A NUTSHELL

As part of the Northern Corridor upgrade in Auckland, HEB Construction began work on the connection between the Northern Motorway (State Highway 1) and the Upper Harbour Highway (State Highway 18) in 2018. The project also includes work to extend the Northern Busway at Albany and develop 7 km of walking paths and new bicycle paths.

STANDOUT FEATURES

The project, scheduled to take four years to complete, will give local residents an optimum motorway link and provide a wide range of public and alternative transport systems to facilitate mobility for the entire community.

KEY PARTICIPANT

HEB Construction
(VINCI Construction International Network).

ASIA: THE AGE OF MAJOR PROJECTS



HONG KONG

The international airport settles in

THE PROJECT IN A NUTSHELL

The Hong Kong International Airport extension included the creation of a third runway on land reclaimed from the sea. The enlargement was carried out to accommodate traffic growth.

STANDOUT FEATURES

The approximately 650 hectares required for the extension prompted the largest soil reinforcement operation ever carried out by Soletanche Bachy. To conserve the marine ecosystem, the Geomix® soil mixing process, which uses a soil-cement mix, was applied. The work was carried out without interrupting airport operations.

KEY PARTICIPANT

Soletanche Bachy (Soletanche Freyssinet).

BANGLADESH

The Excelerate project promotes LNG

THE PROJECT IN A NUTSHELL

Off the coast of Moheshkhali Island in southwestern Bangladesh, two floating LNG storage and regasification units were completed. The project is important for the economic development of the country, which will now be able to diversify its energy resources.

STANDOUT FEATURES

To build the permanent infrastructure, the Geocean teams had to contend with substantial logistic and environmental issues: lack of access to the site, risk of piracy, strong tidal currents, cyclones, and unstable terrain. The innovative solutions proposed made it possible to deliver the project on time despite the extremely tight deadline.

KEY PARTICIPANT

Geocean (Entrepose Group).



CHINA

Two more nuclear reactors

THE PROJECT IN A NUTSHELL

China is the world's largest market for nuclear technology. Two nuclear reactors with 1,150 MW unit capacity are being built at the Fuqing site in the southwestern part of the country, which already has four units. Reactors 5 and 6 are scheduled for commissioning in 2019 and 2020 respectively.

STANDOUT FEATURES

For these first two reactors of third-generation Chinese design, the Freyssinet teams supplied circular prestressing for the reactor buildings and provided technical support. The Fuqing nuclear power plant is set to serve as a showcase for export.

KEY PARTICIPANT

Freyssinet (Soletanche Freyssinet).

INDONESIA

A bridge in the country's colours

THE PROJECT IN A NUTSHELL

Located on the country's northern coast near the city of Semarang, the Kalikuto arch bridge is part of the Transjava national highway project. It links the districts of Batang and Kendal and will improve east-west mobility on the Island of Java.

STANDOUT FEATURES

Freyssinet took part in the construction of the bridge, which has a 100 metre steel main span, by lowering the two half-arches and supplying 36 hangers. This is the first bridge to be assembled on site. Flying the colours of the Indonesian flag, it was inaugurated in December 2018.

KEY PARTICIPANT

Freyssinet (Soletanche Freyssinet).



SINGAPORE

A world first on the Thomson East Coast line

THE PROJECT IN A NUTSHELL

On the 43 km Thomson East Coast line of the Singapore metro, Bachy Soletanche teams are building three new stations. The surface and underground works are taking place in a very dense urban environment and complex geology.

STANDOUT FEATURES

On the Orchard station, Bachy Soletanche is working as general contractor. The teams notably used the first retractable microtunnelling machine to build a heavy retaining structure, consisting of an umbrella vault, at a depth of 27 metres. In a world civil engineering first, the innovative technique devised by Bessac makes it possible to retrieve the machine via the interior of the tunnel.

KEY PARTICIPANTS

Bachy Soletanche Singapore; Soletanche Bachy International; Bessac (Soletanche Freyssinet).

MIDDLE EAST: A SOURCE OF OPPORTUNITIES

 QATAR

The red line is up and running

THE PROJECT IN A NUTSHELL

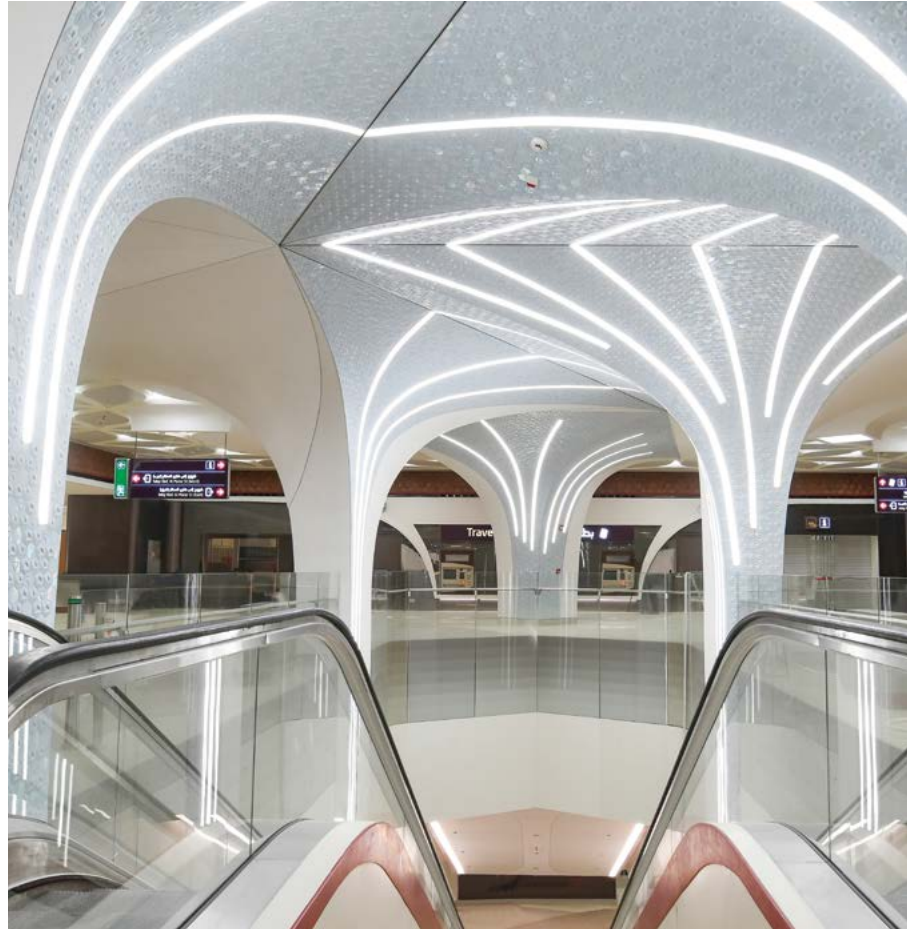
To support economic expansion and population growth, Doha decided to develop a rail transport system. The red line south of the metro, scheduled to begin operating in 2019, will link the Doha airport with the Msheireb neighbourhood, the historic centre of the capital. The project involved design-build construction of a 13.8 km dual tube tunnel and five underground stations.

STANDOUT FEATURES

For the first time since the construction of the Channel Tunnel, five earth pressure balanced tunnel boring machines with an outside diameter of more than seven metres operated simultaneously to bore the line along the Gulf coast. One of the challenges was to control water ingress during construction.

KEY PARTICIPANT

VINCI Construction Grands Projets subsidiary QDVC.





📍 QATAR

LOG OF THE ICONIC LUSAIL PROJECT

North of Doha, Qatar, the new town of Lusail is gradually being built. QDVC, a subsidiary of VINCI Construction Grands Projets, is helping to build it via a large number of projects, including the light rail system (LRT), on which up to 8,000 people were employed.



Building a green city in the middle of the desert

Qatar is one of the countries where cities can still be built from scratch on completely untouched land. To support its exponential population growth, the Emirate chose to develop a new city for a population of 160,000 north of West Bay, the economic heart of the country. Lusail will be a modern city that protects the environment and offers its residents high quality of life and a high level of services. From the first days of the project, QDVC has worked alongside the city's developers on its public transport infrastructure.

QDVC, the longstanding partner of the development project

VINCI Construction became involved in the outsized development project in 2008 through the creation of QDVC, a 51% Qatari Diar and 49% VINCI Construction Grands Projets subsidiary. Since it was set up, the entity designed and developed the LRT (Light Rail Transit System) project under an ECI contract. The project has a length of 21 km, and will comprise 4 lines, a storage / maintenance depot and 28 stations, eight of which are underground. QDVC subsequently supported the development of Lusail via a number of projects that have now been completed, such as construction of roads, utility distribution lines (electricity, cold water and wastewater systems) and underground car parks.



Creating the rail system before building the city

In a reversal of the usual sequence, the LRT was built before the city to minimise disruption. Designed as one of the world's most modern urban transport systems, the LRT, which is in practice a metro-tramway using a technology without overhead power lines, was designed and built by QDVC. Having completed the first phases of the project, which it won in 2007 and 2011, alone, QDVC is currently working in a joint venture with Alstom on the last portion, which includes delivery of 28 trains, track laying, energy supply, signalling and platform screen doors. The bulk of the project will be handed over in 2019, with an extension in 2020.



The LRT, a benchmark turnkey tramway

Showcasing VINCI Construction's expertise, the Lusail LRT is a benchmark rail project that combines technical expertise, a partnership approach to project definition alongside the customer, and ability to take on leadership of a complex lengthy project. VINCI Construction will make the most of the expertise it has built up in railway megaproject management, control and data acquisition systems and railway tunnel ventilation and will rapidly capitalise on the Lusail experience, since it has been declared preferred bidder for the construction of the tramway in Ottawa, Canada.

CENTRAL & SOUTH AMERICA: A HIGH-GROWTH AREA

URUGUAY

A larger quay for greater goods traffic

THE PROJECT IN A NUTSHELL

The Panama Canal enlargement continues to generate a variety of port works and development projects, including quay extensions. One such project is in Montevideo, where the Muelle C quay built by Soletanche Bachy between 2012 and 2014 was extended in 2018 with the addition of the new Muelle D quay.

STANDOUT FEATURES

To lengthen the container terminal, the Danish quay system was used. The 180 metre long concrete slab on drilled concrete piles was connected to the existing quay by means of an 80 linear metre combi wall.

KEY PARTICIPANT

Soletanche Bachy
(Soletanche Freyssinet).





PANAMA

The Atlantic Bridge becomes a reality

THE PROJECT IN A NUTSHELL

The 3,100 metre long bridge with a dual two-lane carriageway was built to enable very large container ships to pass through the canal and also to facilitate vehicle traffic across the Panama Canal independently of the operation of the locks. It was keyed in July 2018.

STANDOUT FEATURES

With its 530 metre central span, the structure is the world's longest cable-stayed concrete bridge to date. VINCI Construction selected construction methods that enabled container ships to continue passing through the canal throughout the project.

KEY PARTICIPANTS

VINCI Construction Grands Projets; Soletanche Freyssinet.

MEXICO

Start of operation of the Shalapa project

THE PROJECT IN A NUTSHELL

Geostock will be maintaining and operating Latin America's first underground saline cavern LPG storage site in the Mexican State of Veracruz for the next 20 years following handover of the site surface facilities by Entrepote Contracting at the end of 2017. The project is a good illustration of the solutions and services involving several types of expertise developed by Entrepote.

STANDOUT FEATURES

The contract showcases Geostock's ability to cover the entire storage facility life cycle, in addition to its design-build expertise. It consolidates the company's position as an operator and confirms the increasing internationalisation of the activity.

KEY PARTICIPANT

Geostock (Entrepote Group).





GUATEMALA

A new U.S. embassy

THE PROJECT IN A NUTSHELL

The United States will soon have a new embassy building in Guatemala, a country with which it has had diplomatic relations for nearly 200 years. The ceremony to lay the first stone took place in March 2018 in Guatemala City.

STANDOUT FEATURES

Rodio Swissboring Guatemala, in charge of building the project's foundations, excavated 227,000 cubic metres of ground and built the retaining walls. The new embassy building is set for completion at the end of 2021. It will be one of Guatemala's first buildings to obtain LEED (Leadership in Energy and Environmental Design) certification, a symbol of sustainable building excellence.

KEY PARTICIPANTS

Soletanche Bachy, Rodio Swissboring (Soletanche Freyssinet).

CHILE

A hospital protected from earthquakes

THE PROJECT IN A NUTSHELL

The city of Curicó, which lies 190 km south of Santiago, will have a brand new hospital in 2020 to replace the previous one destroyed by an earthquake in 2010. With a floor area of more than 100,000 sq. metres, the facility will have a capacity of about 400 beds and serve a population of more than 280,000 people.

STANDOUT FEATURES

To rebuild the hospital complex, which will be the largest in the Maule region, the Freyssinet Chile Spa teams worked in close conjunction with Freyssinet Products Company Italia. Together they designed, supplied and installed a comprehensive seismic protection system.

KEY PARTICIPANTS

Freyssinet Chile Spa and FPC Italia (Soletanche Freyssinet).



“MARINE INFRASTRUCTURE IS CONSTANTLY BEING UPGRADED.”

MANUEL PELTIER, CHAIRMAN OF SOLETANCHE FREYSSINET.

Against a backdrop of trade globalisation, growth in goods and raw materials transport and increasing sea lane traffic, marine infrastructure has been substantially upgraded in recent years, particularly in Asia, Africa and Latin America. The recent enlargements of the Suez and Panama canals boosted world maritime shipping and prompted the emergence of a new generation of “Neo-Panamax” container ships with enormous capacity. All this has generated a move to modernise marine infrastructure.

Recognised expertise

VINCI Construction entities are typically called on to work on projects involving extension and redevelopment of container ports, renewal of oil and gas terminals, quay extensions, port deepening, and installation of port facilities to increase loading and unloading capacity.

Noteworthy projects

Due to its positioning and organisation, which enable it to employ a cross-group approach involving multiple business activities and dedicated expertise, VINCI Construction is able to support public and private port operators around the world from design to commissioning. For example, in Buenaventura on Colombia’s Pacific coast, Soletanche Bachy helped upgrade the Port of Aguadulce, which handles most of the country’s imports and exports. As part of this project,

a container quay and a bulk terminal were built. Similarly, in Trinidad and Tobago’s Brighton Port in the southeastern part of the island, Soletanche Bachy adapted the infrastructure to oil production by building a 352-metre retaining wall and a heavy loading zone on piles. Other iconic projects include extension and modernisation of the port of Brest* in France, with a quay dedicated to Renewable Marine Energy. Meanwhile, the port of La Cotinière on the Island of Oléron was redeveloped and upgraded to accommodate its economic, environmental and tourism goals.

Modernising inland waterway infrastructure

Inland waterway infrastructure projects are more varied and local. Primarily carried out in France, they are mainly geared to maintenance and modernisation and most involve jetty and dock works, dam maintenance, and installation of flood and embankment erosion protection systems.



* (see p.36)

 **JAMAICA**

Welcoming a new generation of container ships

THE PROJECT IN A NUTSHELL

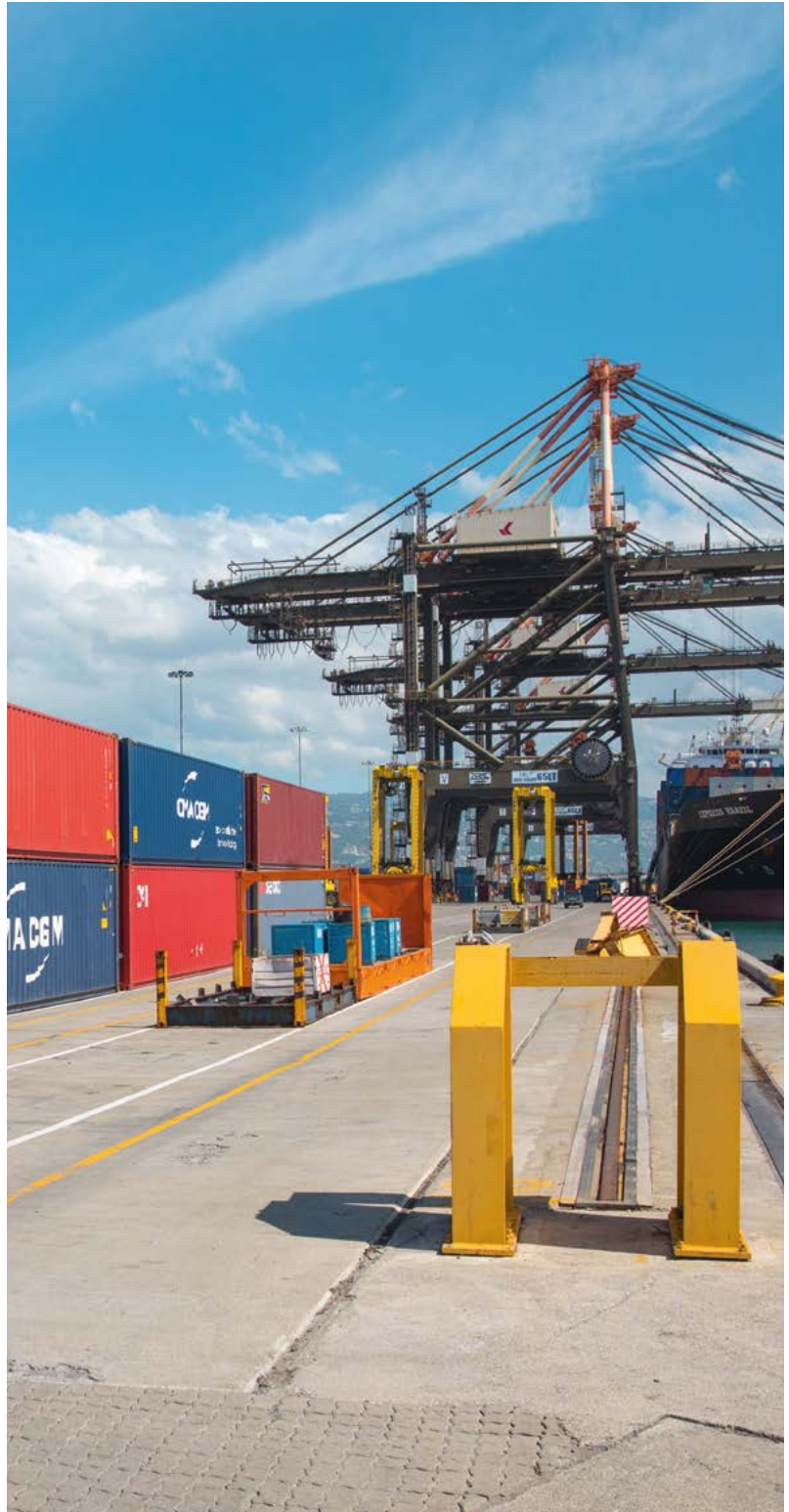
To be able to handle giant Neo-Panamax container ships, the container terminal in Kingston managed by shipping company CMA CGM, which holds the concession, was enlarged; it was also reinforced to protect it against earthquakes. The goal is to transform the site into a strategic hub for the company's Neo-Panamax fleet.

STANDOUT FEATURES

The great strength of VINCI Construction's bid was to offer a solution that reinforces existing structures while keeping them all, which reduced new construction compared to the baseline project. Ultimately the teams met CMA CGM's functional requirements while keeping costs down and ensuring the structure's long-term performance.

KEY PARTICIPANTS

VINCI Construction Grands Projets;
VINCI Construction Maritime and Fluvial.



NORTH AMERICA: A GROWING CONTINENTAL MARKET

UNITED STATES

Safety and capacity upgrade of the Stampede Dam

THE PROJECT IN A NUTSHELL

To improve the safety and storage capacity of the dam, which was built in 1970 in the Sierra Nevada mountains of northern California, a decision was taken to raise the dam by 3.5 metres.

STANDOUT FEATURES

With the goal of limiting flooding in the event of very high water while protecting the surrounding cities and tourist sites, the teams at RECo USA, the U.S. subsidiary of Terre Armée, installed more than 10,000 sq. metres of back-to-back TerraPlus® facings. The project was completed in the autumn of 2018.

KEY PARTICIPANT

Terre Armée (Soletanche Freyssinet).



CANADA

Completion of the Regina Bypass project

THE PROJECT IN A NUTSHELL

As the largest infrastructure project in the history of Saskatchewan, the Regina Bypass motorway will facilitate the flow of goods, smooth traffic flow around the city of Regina and improve safety. After three months of works, the project, carried out by Eurovia subsidiary Carmacks and VINCI Construction Terrassement, is now entering its final phase.

STANDOUT FEATURES

The outsized Regina Bypass project covers 45 km of new roads, 20 km of renovated roads, 12 junctions and 33 engineering structures. It is also the first project on this scale to be developed as a public private partnership.

KEY PARTICIPANTS

VINCI Construction Terrassement; Terre Armée (Soletanche Freyssinet).

"WE ARE POSITIONING OURSELVES AS A PROVIDER OF CLEAN ENERGY SOLUTIONS."

BENOÎT LECINQ, CHAIRMAN OF ENTREPOSE.

What are the challenges of the energy transition?

Benoît Lecinq: The primary goal is to limit global warming to 2°C and to reduce the carbon intensity of our economies in order to rapidly and massively curtail our greenhouse gas emissions. We must achieve this against a backdrop of ongoing population growth that will bring the world population to 8.7 billion by 2035 and entail an increase in energy demand while the world energy mix still contains 80% fossil fuels.

What changes in the energy mix are under way?

B.L. Renewable energies will grow between now and 2035 by about 5% per year worldwide and their share of global energy demand will increase from 3 to 8%. Meanwhile, the growth of coal is expected to decline sharply from 70% in the 2000-2015 period to 10% in the 2019-2035 timeframe. Oil and natural gas are expected to increase by a bit more than 10% and 46% respectively between now and 2035.

What is VINCI Construction doing in the field of clean energy?

B.L. At Entrepose, we are focusing on three major sectors. First, natural gas. We are for example building natural gas terminals in Bangladesh that will be used to generate electricity and cut CO₂ emissions. Second: infrastructure. We have a track record in the construction of cryogenic tanks for LNG terminals. We are also involved

in the Small Scale LNG endeavour to use liquefied natural gas directly, with possible applications in daily mobility. Third, low-carbon energy. We provide so-called SWAC – Sea Water Air Conditioning – solutions that cool buildings on tropical islands by using cold water from the seabed. Together with VINCI Environnement, we are positioning ourselves in the construction of biomass plants that generate electricity from plant and wood residue. VINCI Construction is also focusing on electricity storage with a first project in Morocco, where VINCI Construction Grands Projets and VINCI Construction Terrassement are currently building a pumped storage plant* that will store electricity as water. Lastly, VINCI Construction and Entrepose have just signed a partnership with the CEA to industrialise new intermittent renewable energy storage systems.

* (see p.48)



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