

Major Projects  
Division

2023  
Essentials





**Tideway East**  
United Kingdom

The King Edward Memorial Park Foreshore, one of our Tideway East construction sites in London. Once fully completed, the tunnel will begin to clean up the river Thames from 2025 onwards.

C O N T E N T S



04—09  
**OUR ORGANIZATION**

- 04 Strategic orientations
- 06 Interview
- 08 Structure
- 09 Profile in 2022

10—13  
**OUR IDENTITY**

- 10 VINCI Construction Grands Projets
- 11 Dodin Campenon Bernard
- 12 VINCI Construction Terrassement - Major Projects activities
- 13 Spiecapag

14—29  
**OUR PROJECTS**

30—39  
**THE PRINCIPLES GUIDING OUR ACTION**

- 30 Health, safety and preventing risks
- 32 Environment and ecological transition
- 36 Ethics and human rights
- 38 Technical excellence and innovation

40—44  
**OUR CORPORATE SOCIAL RESPONSIBILITY**

- 40 Human resources and diversity
- 42 Build Better Together



## TO BUILD ALL-ROUND PERFORMANCE, WE COMMIT TO...



Always make **PEOPLE** and  
**SAFETY** our top priorities.

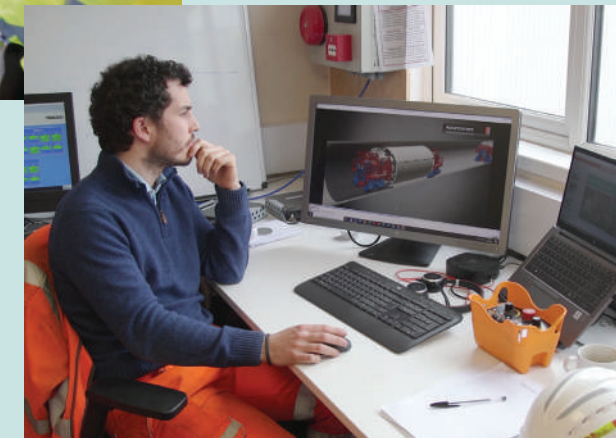


Being a trusted long-term  
partner to our **CLIENTS** and  
**STAKEHOLDERS.**

Developing our  
**EXPERTISE**, strengthening  
our **ROBUSTNESS**, and  
continuing to improve  
our **PRODUCTIVITY.**



Delivering projects with a  
**POSITIVE** environmental,  
social, and societal **IMPACT.**



Continue to **INNOVATE** and **TRANSFORM**  
ourselves to differentiate and be agile.

# « I AM CONFIDENT IN THE FUTURE AND IN THE ABILITY OF OUR TEAMS TO CONTINUE IN 2023 TO WRITE BEAUTIFUL NEW PAGES IN OUR HISTORY »

## Interview with Patrick Kadri

**MANAGING DIRECTOR OF VINCI CONSTRUCTION IN CHARGE OF THE MAJOR PROJECTS DIVISION AND CEO OF VINCI CONSTRUCTION GRANDS PROJETS**

### 2022 was a turbulent year in the world. What impact has this had on the Major Projects Division?

— 2022 was indeed a singular year, marked by the diversity of crises and their intensity. In this context, the Major Projects Division has again shown its resilience, with an increase in turnover of almost 35%, and above all a profitability maintained at a good level, cash flow once again increasing and order intake allowing us to benefit from an order book representing almost three years of activity. These remarkable results did not come about by chance. We owe them to the commitment of the 12,000 men and women in our division, all of whom are passionate and inspired.

### Is this collective commitment enough to explain this performance?

— While commitment is essential, it is not enough on its own. Our greatest assets are our high standards, our sense of responsibility as a team driven by a true entrepreneurial spirit, our ability to find innovative solutions, our control of production and our constant search for productivity, our ability to adapt and our multiple and complementary areas of expertise. Our employees demonstrated this again in 2022. This, combined with our worksite-oriented



organisational model with strong, expert support services serving the projects, enables us to get through crises, even when they are multiple, concomitant, and severe, and to perform well in the turmoil.

### Financial performance is essential to the sustainability of companies. Is it sufficient?

— The teams of the Major Projects Division can pride themselves on having shared a common ambition for many years: promoting excellence to drive overall performance.

Our values are strong. They are expressed through structuring fundamentals, supported by simple but crucial commitments: women and men at the centre of our attention, sharing the same safety culture, a proactive approach to a more sustainable world, unequivocal mobilisation for a positive societal impact and practices that respect our ethical principles. These shared values are put to work for clients, communities and territories to design and build infrastructure that make sense, bring people together, facilitate their mobility, improve their living environment, contribute to the preservation of resources and natural environments, participate in the low-carbon world of tomorrow or enable more efficient production of sustainable energy.

### What roadmap for 2023?

— Our roadmap is simple. It is written around a few major axes: achieving "zero serious accidents", reinforcing our eco-responsible development, knowing how to be even more selective, being ever more demanding in terms of operational excellence, accentuating transversality and convergence within the Major Projects Division. And we will do this thanks to our international, multicultural, and mixed teams and by taking advantage of the tremendous synergies offered by the VINCI group.

I am confident in the future and in the ability of our teams to continue in 2023 to write beautiful new pages in the century-long history of the companies that are part of the Major Projects Division, pages where our growth will be green, profitable and sustainable.

« These remarkable results did not come about by chance. We owe them to the commitment of the 12,000 men and women in our division, all of whom are passionate and inspired. »

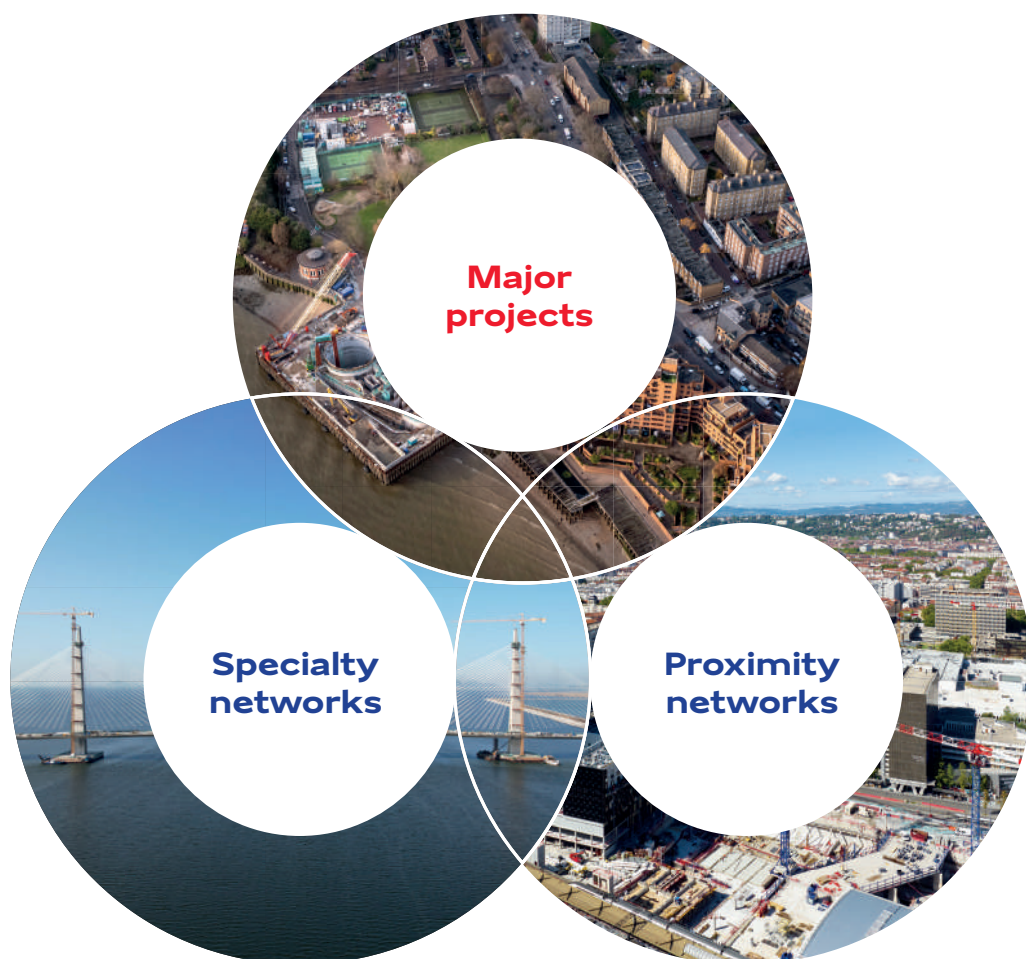
## Management team

as at 1 March 2023

- ▶ **Patrick Kadri**  
Managing Director of VINCI Construction in charge of the Major Projects Division and CEO of VINCI Construction Grands Projets
- ▶ **Patrick Bêchaux**  
Director of Human Resources
- ▶ **Sébastien Bliaut**  
Central Europe, Northern Europe and Benelux Operational Director
- ▶ **Arnaud Brel**  
Director of Quality, Safety, Environment and Information Systems
- ▶ **Éric Chambraud**  
Director of Strategy
- ▶ **Benoit Denizot**  
Chairman of VINCI Construction Terrassement - Major Projects activities
- ▶ **Yanick Garillon**  
Asia, building and hydraulic works Operational Director
- ▶ **Bruno Guy de Chamisso**  
Managing director of Spiecapag
- ▶ **Gonzalo Jaspe**  
Legal Director
- ▶ **Florence Laizier**  
Managing director of Dodin Campenon Bernard
- ▶ **Philippe Masselot**  
Financial Director
- ▶ **Lionel Ravix**  
France, Mediterranean Europe and United Kingdom Operational Director
- ▶ **Anne-Sophie Royer**  
Director of Communications
- ▶ **Philippe Tavernier**  
Qatar, Middle East, Africa and South America Operational Director
- ▶ **Jean-Luc Toris**  
Director of Engineering and Technical Resources



**THE MAJOR PROJECTS DIVISION  
IS PART OF THE VINCI CONSTRUCTION  
ORGANISATION BASED ON THREE  
COMPLEMENTARY PILLARS**



**€3.3 billion**

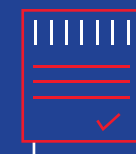
turnover



4 companies

**€9 billion**

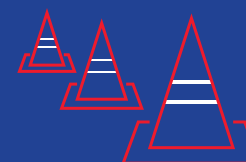
order book  
(+75% in 4 years)



**12,424**  
employees

**33,424**

hours of training  
provided



**185**

ongoing projects,

**45**

of which are  
over €200m





Rijnlandroute  
The Netherlands

## OUR INTERNATIONAL PRESENCE

We carry out exceptional works and highly technical projects throughout the world in four main areas of activity: transport infrastructure, buildings and functional structures, hydraulics and environment, and energy.

**50**

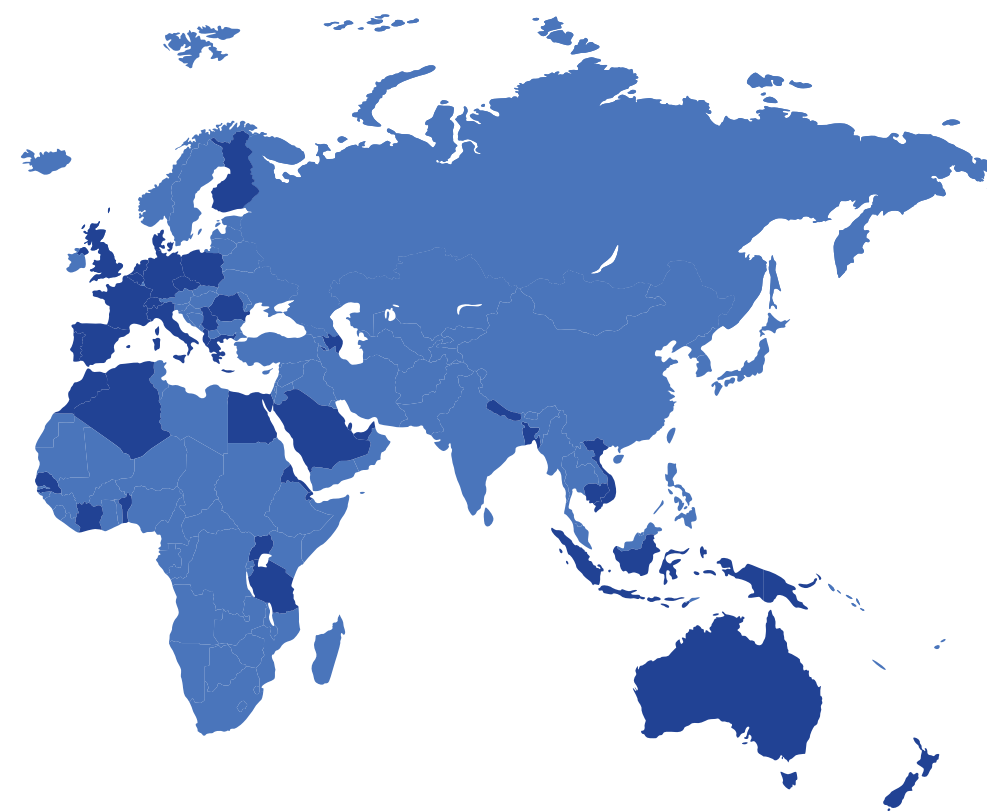
countries where we operate

**52**

nationalities among our teams

**86%**

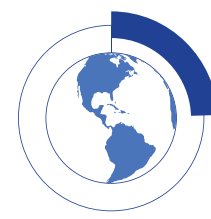
of turnover is generated abroad



Breakdown of turnover by geographical area  
(in million euros)



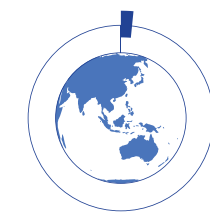
**1,641** (49%)  
Europe



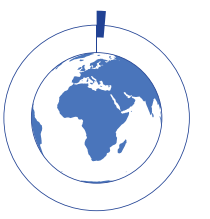
**748** (23%)  
Americas



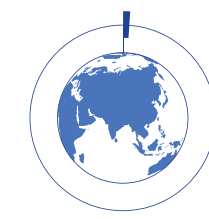
**482** (14%)  
France  
(and overseas)



**248** (7%)  
Oceania



**125** (4%)  
Africa



**108** (3%)  
Asia



Waste-to-energy plant  
in Ivry-sur-Seine  
France



## VINCI CONSTRUCTION GRANDS PROJETS

Driven by its ambition to design major infrastructure of the future, VINCI Construction Grands Projets capitalises on its expertise and performance culture to design and build highly complex civil engineering structures worldwide, particularly in the energy, hydraulics and environment, building and transport sectors.



 **Hampton Roads Bridge-Tunnel**  
United States

### The year in brief

— In addition to the inauguration of the new terminal at Chile's Arturo Merino Benítez international airport, one of the largest building project ever undertaken by VINCI, the launch of work on the Lyon-Turin rail link in France and the Sambangalou dam in Senegal and the continuation of major projects (High Speed 2 and Tideway East in the United Kingdom, City Rail Link in New Zealand, Hampton Roads Bridge-Tunnel in the United States, Grand Paris Express in France, and the Abdelmoumen pumped storage power plant in Morocco) have provided steady levels of business activity in 2022. This momentum was further supported by the signature of new contracts for the construction of hydraulic infrastructure in Uganda and a major section of a metro line in Toronto, Canada.

► **The Hampton Roads Bridge-Tunnel**, with the construction of 5.3 km of offshore viaducts and tunnels and the widening of 14.5 km of existing lanes, is the largest infrastructure project ever undertaken in the state of Virginia. Carried out without affecting traffic, it will relieve congestion on its motorway network for its 100,000 daily users by the end of 2026.

**10,499**  
employees

**109**  
projects

**€2 Bn**  
revenue

**€6,6 Bn**  
order book

## DODIN CAMPENON BERNARD

As a major long-standing player in public works in France, Dodin Campenon Bernard capitalizes on its extensive technical and operational expertise to put forward to clients, both in France and abroad, a complete offer in the areas of major underground works and civil engineering projects, including all stages of project management from design to execution.



 **Avrieux shafts**  
France

### The year in brief

— Dodin Campenon Bernard's targets for business activity in 2022 have been met and our order book is high. The year notably saw the start of the new Larivot bridge project in French Guiana and the award of the Anne-de-Bretagne bridge in Nantes. Our teams were particularly involved in three action plans: "Dynamique Prévention", whose deployment we continued, "Environment", which we finalised, and "Gender diversity", which we launched.

► **The construction of the Avrieux shafts**, 500 metres deep, will ensure the ventilation of the tunnel of the future Lyon-Turin link. This new strategic railway line will contribute to the decarbonisation of transalpine mobility.

**521**  
employees

**16**  
projects

**€271 M**  
revenue

**€668 M**  
order book



## VINCI CONSTRUCTION TERRASSEMENT - MAJOR PROJECTS ACTIVITIES

Around the world, the VINCI Construction subsidiary specialising in earthworks for major projects designs and builds large-scale infrastructure that promotes mobility and contributes to climate resilience. Its know-how in large-scale projects, its ability to carry out earthworks and associated structures in-house, and its expertise in design, geotechnics, topography, the environment and stakeholder involvement ensure that it has overall control over projects.



► The construction of the off-stream Springbank reservoir will protect the people of the Calgary area by diverting and temporarily storing water from the Elbow River during flood events. In addition to the associated diversion canal, the construction of a 29 m high, 3.8 km long earthen dam will contribute to the region's resilience to climate change by the end of 2025.

### The year in brief

— The year was marked by the commissioning of the A480 motorway in France, the partial opening of traffic in one direction of the D1 dykes and the viaduct of the New Coastal Road in Reunion Island and the delivery to Deutsche Bahn of the railway platforms for the Stuttgart 21 high-speed line in Germany. The year also saw the start of earthworks on the B247 federal road in Germany and the construction of the off-stream Springbank reservoir in Calgary in western Canada. Preparatory work also began at the end of September on the Sambangalou hydroelectric dam, near Kédougou in Senegal.

**494**  
employees

**10**  
projects

**€612 M**  
revenue

**€1,5 Bn**  
order book

## SPIECAPAG

With more than 60,000 km of pipelines laid worldwide, Spiecapag offers an innovative range of services in the construction of onshore pipelines and associated infrastructure, as well as water-supply and ore-transport networks - and an unrivalled reputation for working in the most challenging environments.



► The 97 km long Southampton to London pipeline is intended to replace an existing pipeline and provide fuel to Heathrow international airport. Its construction - made more challenging by a succession of alternating sections in rural and urban environments - will continue to offer a greener alternative to road transport from 2023.

### The year in brief

— In addition to the continuation of the Coastal GasLink project in British Columbia, 2022 was marked by the start of operations on the Southampton to London pipeline project in England. Spiecapag's growth has been built on the strong activity of its specialised (HDI - horizontal directional drilling) and geographic subsidiaries, notably in Oceania where the Kewdale White Oil Pipeline and Lihir projects, led by Spiecapag Australia and HDI Lucas, are in full swing.

**910**  
employees

**50**  
projects

**€401 M**  
revenue

**€233 M**  
order book



OUR FLAGSHIP  
PROJECTS, BUILT  
ON SYNERGY

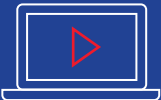
The Major Projects Division's year was shaped by major works that once again demonstrated its complementary skills. We look at some exceptional projects.



 **Arturo-Merino-Benítez Airport**  
Chile

Connecting territories

— With the inauguration in February 2022 of the extension works at Arturo-Merino-Benítez International Airport, just a stone's throw from the Chilean capital, our teams celebrated the completion of one of the largest building projects ever undertaken by VINCI. In the mountain ranges of the Andes, we spent six years building a new 248,000 m<sup>2</sup> terminal with capacity doubled from 15 to 38 million passengers per year. Thanks to our full BIM implementation, the concessionary company (including VINCI Airports) will benefit from 100% digitalised operation and maintenance. With the transfer of all international flights to the newly commissioned terminal, teams are now working on the renovation of the existing 32,000 m<sup>2</sup> terminal which, when completed by summer 2025, will be able to accommodate all domestic traffic with an increased level of comfort, capacity, and passenger experience. The airport infrastructure will contribute to the growth of flows in Latin America and to the economic development of the country.



Discover our projects  
in video



**High Speed 2 railway line**  
United Kingdom

Bringing people closer

— With 90 km of track and 200 engineering structures under its responsibility, our Balfour Beatty VINCI consortium is involved on several fronts in the construction of the High Speed 2 line, the largest infrastructure project in the United Kingdom in the 21st century, which is shaping the contours of low-carbon mobility and connecting the North of England to its capital. Last July, our tunnel boring machine Dorothy made its first breakthrough in the Midlands, having travelled 1,600 m under the ancient woods of Long Itchington, thus preserving their ecosystems. In December, we signed a world record with Freyssinet (VINCI Construction) with the 164-metre auto-sliding of the Marston Box bridge, which, heading south, will notably provide a link to Old Oak Common station, which we are building. A showcase of modernity and ecological ambition, the station, which by 2030 will be a major hub in the heart of London, with 250,000 daily passengers, benefits from numerous environmental initiatives and from our expertise in eco-design (see p.34).



Relive the  
record-breaking  
installation of the  
Marston Box bridge







## Grand Paris Express France

### Making shared mobility a vector of attractiveness

— Revolutionising urban mobility in the Greater Paris region: this is the ambition of the Grand Paris Express, which intends to offer its 12 million inhabitants a modern, sustainable and extended mobility network in the heart of the region. Europe's largest urban infrastructure project holds the promise of opening up and ensuring the long-term socio-economic development of the areas it serves. A vector of attractiveness and a laboratory of ideas for the energy transition, the Grand Paris Express also enshrines the combined excellence and expertise of the companies in the Major Projects Division.



During the year 2022, we have reached key milestones in these emblematic projects.

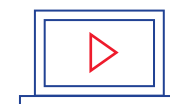
The handover of the Arcueil-Cachan station in the spring marked the year for our teams working on the Fort d'Issy - Villejuif Louis-Aragon section of line 15 South (lot T3C), which in 2021 had delivered the entire 8 km of tunnels and handed over the Villejuif Institut Gustave-Roussy station. With the completion of civil engineering operations at the new Noisy-Champs station in December, our teams working on line 15 (lot T2D) are now demonstrating their know-how in the assembly of its colossal 5,000 m<sup>2</sup> dome, which should cover the station by next summer. Similarly, we have continued our momentum on our Line 18 construction sites.



Work on the underground section involving the construction of 11.8 km of tunnel and three stations between Orly airport and Massy-Palaiseau continued, with in particular the laying of low-carbon segments in close cooperation with our client Société du Grand Paris, a world first, and the arrival of our Céline tunnel boring machine at Massy-Palaiseau station after a 2.4 km journey through the subsoil of the Greater Paris region.

The overhead section, consisting of a 6.7 km viaduct that will contribute to the development of the Saclay centre of excellence, also highlighted our expertise in complex structures, such as the simultaneous installation in the summer of cantilever arms over the RN 118, at a height of 30 metres.

As committed builders attentive to the sustainable footprint of our activities, we also support community projects in the vicinity of our worksites (see p.41) through VINCI's Chantiers & Territoires Solidaires endowment fund.



Discover the dome's construction  
in video





**ITER nuclear fusion reactor**  
France

### Building the future of energy

— At Cadarache, at the heart of a project that enshrines international cooperation involving the European Union, China, Japan, South Korea, India, Russia and the United States, we have been working for ten years to make clean, sustainable and inexhaustible energy a reality. As leader of a consortium combining the expertise of VINCI Construction and our partners Razel-Bec and Ferrovial Construcción, we delivered the Tokamak complex in 2021. This 120 m long, 80 m wide and 400,000 t building is the centrepiece of the prototype nuclear fusion reactor. Since then, we have been entrusted with the construction of the Tritium building, named after one of the two hydrogen isotopes that will enable the fusion reaction. This renewed trust from our client is a testimony to our expertise in non-standard nuclear infrastructure. Work is continuing on this 9,000 m<sup>2</sup> structure with floors on 4.5 levels made entirely of containment concrete, with final delivery scheduled for 2024.



**Federal road B247**  
Germany

### Connecting urban centres

— The B247 is the first German federal road to be awarded to a private operator as part of a public-private partnership (won by VINCI Highways). It benefits from our expertise in building transport infrastructure, with the construction of 22 km of lanes in north-eastern Thuringia. With an estimated annual traffic volume of more than 5 million vehicles, of which almost 1 million are heavy goods vehicles, this new road aims to improve user safety and the quality of life of local residents by relieving the existing infrastructure that passes through several settlements between the cities of Mühlhausen and Bad Langensalza.



**Abdelmoumen pumped storage power plant**  
Morocco

### Accelerating energy transition

— With a capacity of 350 MW, the future Abdelmoumen pumped storage power plant is intended to diversify the Kingdom of Morocco's energy mix and compensate for the intermittent nature of wind and solar energies to supply the local electricity network. On the slopes of the Atlas mountains, the excavation of two basins with a unit capacity of 1.3 million m<sup>3</sup> and the completion of the civil engineering, which echoed the completion of the penstock over a 550 m drop and the installation of the electromechanical facilities, marked a crucial step towards the project delivery scheduled for 2023. Built in a region of high hydric stress, this "giant battery" will provide renewable energy on demand.





**Bogotá-Girardot motorway**  
Colombia

### Modernising the motorway networks

— The Bogotá-Girardot motorway, an essential axis for the vitality of the territories in the heart of Colombia, is of strategic importance. It irrigates the country from the Pacific coast to the capital and participates in the development of trade, with more than 15 million passengers annually. On behalf of VINCI Highways, we have been working since 2018 to widen the road, including the construction of a 65 km third lane and three bi-directional tunnels with a total length of 2 km, and to modernise it, with the rehabilitation of all of its 118 km of roadways, an existing 4 km tunnel and the construction or widening of 44 engineering structures. To ensure that our activities have a lasting and positive impact, for the past two years we have been running a programme, called Semillero Rosa, to train women from local communities in construction professions and to recruit them. Once completed, the work on these roads will ensure better safety and comfort for users, while helping to keep traffic flowing and strengthen regional links.



**City Rail Link**  
New Zealand

### Developing sustainable urban mobility

— To support Auckland's growth and design a fast, low-carbon shared mobility system, our Link Alliance consortium is continuing to build 11 km of new tracks (including 7.5 km of tunnels), while keeping North Auckland Line traffic moving in an extremely dense urban area.

The largest infrastructure project ever undertaken in the country, the City Rail Link reached a major milestone in September. The breakthrough of the Dame Whina Cooper tunnel boring machine at Te Waihorotiu station thus completed the excavation of the last of the two tunnels winding through the city's underground and paved the way for the architectural work and the installation of the electromechanical lots and rail systems. By 2024, 54,000 passengers per hour will be able to reach the heart of the city in just 30 minutes, thanks to the doubling of the network's current capacity.







**Femernbaelt Tunnel**  
Denmark/Germany

## Revolutionising exchanges in Northern Europe

— In 2029, it will lie 40 metres under the Baltic Sea and its 18 km will make it the longest immersed tunnel in the world. The Femernbaelt will offer more sustainable mobility alternatives with rail and road links to the Danish and German coasts between Rødby and Puttgarden, in 7 and 10 minutes respectively. Its realisation by our Femern Link Contractors consortium, under the seal of excellence and innovation, is a unique technical and organisational challenge.

With the start of operations on the Danish portal in May, the completion of the first production lines for the 89 217-m long, 73,000 t caissons in December and the start of construction of the floating gates that will allow them to be launched, we have achieved in 2022 the first key milestones.

Once in service, this pharaonic structure will contribute to the development of exchanges in Northern Europe and the reduction of their environmental footprint, in line with the European Union's 2050 carbon neutrality objectives.



► How to build  
the longest underwater  
tunnel in the world?



**Calgary Werstern Bypass**  
Canada

## Building a new urban mobility

— The 7 km long Calgary Western Bypass, located between Highway 8 and the Trans-Canada Highway, will complete the city's ring road project, which will provide 100 km of lanes to optimise access to the city's infrastructure (schools, hospitals, workplaces) and reduce congestion on urban road networks for smoother, safer and faster mobility by 2025.



**Bakheng drinking water treatment plant**  
Cambodia

## Providing people with drinking water

— The Bakheng drinking water treatment plant, with a capacity of 390,000 m<sup>3</sup>, is of strategic importance. When completed at the end of 2024, it will supply nearly two million people in the Cambodian capital, Phnom Penh.







## Louis-Hippolyte-La Fontaine Tunnel Canada

### Promoting shared mobility

— The Louis-Hippolyte-La Fontaine Tunnel, the longest immersed tunnel in Canada, has been linking the shores of the St. Lawrence River in Montreal for 75 years. This 1.5 km long structure is crossed by 120,000 vehicles every day. Our contract covers the design, financing and execution of the modernisation work. This involves structural repairs and the deployment of new devices and technologies that will provide greater safety for operators and users, as well as the renovation of 25 km of roadways and the widening of the A20 motorway. This work, launched in early 2021 with our partners Pomerleau and Eurovia, will last until 2025. They will ease traffic congestion and encourage carpooling and public transport, with the creation of a dedicated lane.



## Coastal GasLink Canada

### Ensuring energy security

— The construction of the Coastal GasLink poses an extreme logistical challenge, which we continued to meet on the 28 km route through the Canadian Rockies that was awarded to us. The pipeline will bring natural gas from Dawson Creek to northwestern British Columbia, where our teams are also building the largest liquefied natural gas tank ever built by VINCI, demonstrating the complementary expertise of the Major Projects Division. The Coastal GasLink, which calls on our ability to operate in the most hostile and complex environments, will make it possible to supply Asian markets, contributing to their policy of diversification and energy transition. It will also strengthen Canada's position as a leading exporting country when it comes into service in 2024.





**SWAC system**  
French Polynesia

### Innovating for energy efficiency in buildings

— In Bora Bora, our teams successfully completed the installation of a seawater air conditioning system (SWAC) for the Intercontinental Hotel. Towed almost 300 km from its prefabrication site in Tahiti, the 2,000 m long subsea pipeline was then submerged along the reef to a depth of 900 m. This technology of capturing cold water (5°C) in deep waters and injecting it into the air conditioning system before releasing it into the ocean at a temperature of 12°C, has enabled our client to benefit from energy savings of 90%, i.e. 1,600 t of carbon equivalent per year. After the installation of the longest commercial SWAC in the world, which was commissioned in early 2022, we are consolidating our position as an innovative leader in the service of energy transition and sustainable development in the regions.



► **Witness the installation  
of the world's longest  
commercial SWAC**



**Lyon-Turin Euralpine Tunnel**  
France/Italy

### Decarbonising exchanges in Mediterranean Europe

— Engaged in the preparatory work for the Avrieux shafts (four 500m deep ventilation shafts), our teams have also been involved since October 2021 in the construction of a 31 km section of a twin-tube tunnel for the Lyon-Turin rail link. This line, that will connect Italy and France, will reshape mobility in Southern Europe. The first of our three tunnel boring machines is expected to start its journey from Saint-Martin-de-la-Porte in early 2024 for a 8.6 km run towards La Praz. The other two tunnel boring machines (each of which will dig through 8.3 km) will leave from La Praz towards Modane in late 2025 and early 2026. In line with the European Union's Green Pact, this infrastructure will promote the development of economic and passenger exchanges while relieving the Alpine roads of one million heavy goods vehicles, resulting in an annual reduction of approximately 3 million tonnes of CO<sub>2</sub> equivalent.







### Tideway East United Kingdom

#### Preserving the Thames

— In April 2022, the breakthrough of the Selina TBM at the Abbey Mills pumping station marked the end of excavation operations on Tideway East, which has seen us build two tunnels, totalling 10 km in length, over the past eight years. The breakthrough also marked the end of the 25 km of tunnels in the Tideway programme, 70 m beneath the streets of the British capital. Its connection to the Lee Tunnel, which enshrined our expertise in underground works with its commissioning in 2016, will provide the finishing touch to London's wastewater and stormwater transfer and storage system. As the secondary lining continues to be laid, this new sewage system will help to preserve the waters of the Thames from 2025. The project's environmental ambitions were also reflected on our worksite, where our consortium's initiatives, including the use of low-carbon concrete and river transport of materials, resulted in savings of more than 50,000 t of CO<sub>2</sub>.



### Grain LNG United Kingdom

#### Massive energy storage

— On the Pacific coast of British Columbia in Canada, we are building a 225,000 m<sup>3</sup> liquefied natural gas tank. We are also demonstrating our expertise as a turnkey contractor on the Isle of Grain, at the mouth of the Thames, for the construction of a full containment tank with a capacity of 190,000 m<sup>3</sup>. The foundation and installation of the 821 piles, completed in March 2022, was followed in July by the erection of the 35-m high outer shell using a sliding formwork. Our operational excellence was again highlighted last February with the airlifting of the roof. This meticulous operation, which took almost 3 months to prepare, saw the tank adorned with its 950-t, 90-m diameter dome in just two hours. The project is part of the programme to expand the capacity of Europe's largest LNG terminal and is expected to be completed by the end of 2024.





## HEALTH, SAFETY AND PREVENTING RISKS

Transparency, exemplarity, dialogue: these three pillars are the foundation of our activity. They also reflect our safety culture, which is based on our ambition to protect the physical and mental integrity of all the men and women who work on our worksites.

### Prevention

#### Achieving "zero serious accidents"

Safety is a core value of the Major Projects Division and governs our worksites.

It is among the most crucial indicators of our operational performance. It is the guarantee of the quality of our work, the preservation of our know-how and the satisfaction of our clients. But it is also a duty and the primary condition for the development of our employees. That is why we are doing everything possible to achieve "zero serious accidents".

We rely on a rigorous and demanding organisation, based on compliance with processes and procedures detailed in a unified operational reference system, but also on the support of our functional departments with dedicated training and consideration of risks upstream of our projects, as early as the design phase.



## Health

### Preventing the risks associated with our projects

Identifying the risks associated with the execution of our projects is an absolute necessity.

Our "Safety in Design" approach addresses this need. Committed from the design stage onwards, we optimise our structures for enhanced safety during the construction, operation and maintenance phases. The "Productive and safe" scheme, which governs our activities and allows us to identify, share and control our major risks, offers a precise framework for developing the tools and resources available to our teams to ensure that they develop their skills, which is the primary factor in safety on our worksites. In the field, the automation of accident-prone tasks and the deployment of internal tools, such as Wise (wireless fire alarm, communication and geolocation network with access control in difficult environments), contribute to better risk prevention.



#### FOCUS SAFETY DAY(S)

This awareness-raising process culminates in the Safety Day(s). From 14 to 20 May 2022, this cross-functional VINCI Construction event was organised by our teams around a central theme: lifting operations, which are inherent to our major infrastructure projects. With workshops, conferences, surveys and virtual reality tours, this moment of sharing values and resources also involved our clients, partners and subcontractors in the service of our common goal: to make our ambition of "zero accidents" a reality.

## Safety

### Sharing a common culture

Training is the cornerstone of our continuous improvement.

It is proactive and helps to instil a sense of shared responsibility in all our worksites around the world. More than 700 of our employees, including managers, team leaders and workers, benefited from specialised modules ("Managing with Safety", "Productive and safe", "Alive on Site") during the year, ensuring greater convergence within the Major Projects Division. These training courses instil and support a common dynamic, contributing to the development of reflexes and skills for everyone.



## ENVIRONMENT AND ECOLOGICAL TRANSITION

We participate in the construction of the world of tomorrow, committed and sustainable. Our environmental performance is the basis for the sustainability of our model and our structures. Reducing our CO<sub>2</sub> emissions, the circular economy and preserving the natural environments: these three areas govern our actions at the heart of our projects.

### Green growth

#### Turning our environmental ambitions into a growth driver

Our businesses contribute to the decarbonisation of our living environment. In 2022, we mobilised our expertise for shared mobility, sustainable energy production and water resource conservation around the world. We are making green growth a reality. Our ambitions to control our carbon footprint make our activities more and more part of a responsible approach.

#### Promoting new environmental offerings

As part of VINCI, we are committed to climate resilience and ecological transition by investing in markets of the future. We have thus structured our offer for hydrogen green projects with our Hyfinity brand, affirming our position as integrator and strengthening our presence in the value chain for this gas, which is essential to the decarbonisation of industries, with the complementary expertise of our subsidiaries Spiecapag and Geostock, respectively world leaders in energy transport via onshore pipelines and underground energy storage.



#### Accelerating transition on our construction sites

In line with our Environment 2030 plan, our projects are our priority to achieve our environmental ambitions. We support them in translating our action plans into reality with tools and methodology adapted to our activities. We systematically carry out carbon assessments and monitor our performance to identify our levers for action, including more sustainable materials (recycled steel, low-carbon concrete, etc.), reducing our consumption of hydrocarbons for our construction equipment or our utility vehicles (eco-driving, start & stop...), energy efficiency at our living bases, waste sorting and recovery, and water resource conservation.

With our Environment in Design approach, which takes environmental issues into account from the design and site preparation phases around the "avoid, reduce, replace" pillars, the eco-design of our structures enables us to forge our environmental performance upstream of our projects. In this way, we support our clients in developing sustainable solutions in the name of global and sustainable performance.



### Low-carbon approach

#### Reusing our materials

Nearly 1 Mt of spoil were reused by our teams at Tideway East in the United Kingdom to create a new wetland in the heart of the Rainham Silt Lagoons, a biodiversity haven on the outskirts of London. This approach is echoed in all our theatres of operation, as in Serbia, with the recycling of 30% of the asphalt of the existing runway at Belgrade airport, or in France with the use of recycled gravel on the Avrieux shafts project.

#### Switching to low-carbon concrete

The use of low-carbon concrete (VINCI Construction's Exegy® brand) is a tool for decarbonising our activities. In 2022, used notably on our Grand Paris Express project in France (see p.16-17), the City Rail Link in New Zealand and the Bakheng drinking water treatment plant in Cambodia, they represented 46% of our concretes. We have set a target of 90% for 2030.



Discover our  
Exegy® solutions



## Low carbon mobility

### Optimising logistics

The installation of conveyor systems at our Old Oak Common and High Speed 2 worksites, two flagship projects for low carbon mobility in the United Kingdom, will allow the transport of over 2 Mt of material, taking 30,000 lorries off the roads in the Midlands and avoiding 1 million trips back and forth to London.

# -50%

reduction in the carbon footprint generated by construction of Old Oak Common station in London through the eco-design of our structures



## Collective commitment

### Raising awareness for action

Our success is built on a collective level. The implementation of educational tools, dedicated training on our sites (in particular on eco-driving and monitoring the consumption of our equipment fleets) and e-learning, and the raising of awareness among our employees all contribute to a global increase in skills. VINCI's Environment Day, held at the end of September and attended by all the Group's employees, bears witness to a shared commitment.

## Protecting natural environments

### Saving water resources

The preservation of water resources is the subject of specific measures.

The Aqua-Eco ramp, which saves 40% of water, is used in Morocco, the United Kingdom, Germany and Senegal. It will soon be working on the off-stream Springbank Reservoir project in Canada, engaged in rainwater and snowmelt harvesting and the construction of temporary reservoirs for a total storage capacity of 20,000 m<sup>3</sup>.

Other examples of our work in favour of biodiversity include the construction of a new 80,000 m<sup>3</sup> lake to relocate the flora and fauna of Strandholm Lake in Denmark, the plan to save vascular epiphyte species (19 species, 1,700 individuals) in Colombia, and erosion management and sediment control on the Coastal GasLink in Canada.





## ETHICS AND HUMAN RIGHTS

Setting an example is a prerequisite for our global and sustainable performance. Our commitment to full transparency and respect for human rights is at the heart of our business and helps build trust with our clients and stakeholders around the world.

In line with the commitments of the VINCI Manifesto, we ensure that each of our activities is marked by probity, respect for human dignity and the fundamental rights of the people and local communities with which we interact.

In 2022, the continuation of our action plans meets this absolute requirement, which is in line with our ambition to carry these fundamental and constitutive values of our companies with our partners and subcontractors.



## Awareness-raising

### Anchoring a strong ethical culture

With the deployment of VINCI Construction's ethics and anti-corruption programme, we have stepped up awareness-raising among all our employees, with the systematic signing of the Group's anti-corruption code of conduct and code of ethics and conduct. The development of dedicated teaching tools, such as e-learning modules (anti-corruption, conflicts of interest) and training courses, given to more than 600 people, helps to anchor this culture within our teams.

## Improvement of practices

### Sharing our ambitions

With an "enhanced" risk map, the implementation of a new methodology for assessing third parties and a digital platform for pooling and managing external service providers, we are also strengthening our ethical policy and ensuring that it is shared by everyone involved in our projects. This proactive approach, supported by feedback workshops and the VINCI Integrity whistleblower protection system, contributes to the continuous improvement of our practices. It reflects our commitment to ensuring that our activities are a source of progress, benefit everyone and have a positive societal and human impact.



The year 2022 was also marked by the taking into account of international sanctions within the Ethics & Compliance direction of the Legal and Contracts department due to the crisis in Ukraine.



## TECHNICAL EXCELLENCE AND INNOVATION

Technical excellence is the signature of the Major Projects Division. It is the keystone of our development, of the operational control of our worksites and of our ability to design and build the most complex infrastructure. It is the foundation of our future success and ensures our ability to meet the challenges of tomorrow.

### Synergy

#### Innovating and developing synergies to serve our projects

Our culture of innovation, shared by the 500 engineers in our technical departments, is an essential productivity lever for our overall performance. Consolidated by common operational guidelines, such as the LinKtech technical platform, our synergies support the digital transformation of our businesses and the strengthening of complementary expertise (geotechnics, structures, BIM, methods, systems, concrete...) which guarantee the quality of our works. Our R&D policy encourages the emergence of innovative tools, such as DISCO, a real-time 3D scanning solution for controlling the volume of excavated soil, Wise, our communication and alarm system for confined spaces, Linaster, for optimising the management of our projects by capturing and processing machine data, and CAP, our solution for controlling and acquiring data from our tunnel boring machines.



### Ecoconception

#### Delivering on our environmental ambitions

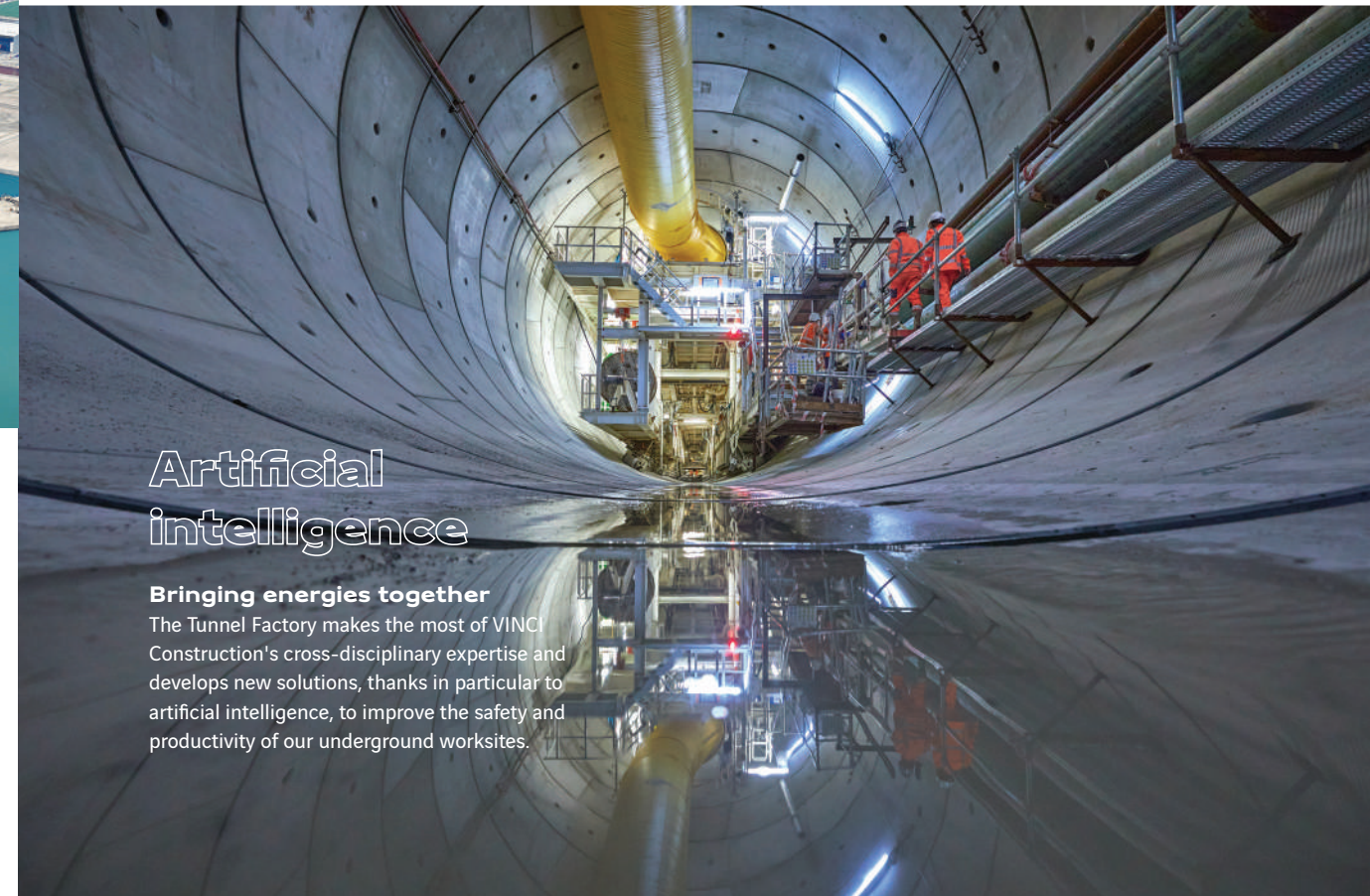
Our technical departments support our teams in charge of tenders and the execution of our worksites throughout the life cycle of our projects. This agile organisation also contributes to the monitoring and reinforcement of our environmental performance, with the systematic establishment of carbon footprints and their tracking. Our new Environment in Design approach allows us to optimise our structures and the resources mobilised on our construction sites to significantly reduce our environmental footprint by implementing, for example, our pioneering ultra-low carbon concrete solutions.



### Ecomobility

#### Designing sustainable mobility

With the City Rail Link, we are imagining the future mobility of Auckland, New Zealand. Our mitigation measures, from design to operational aspects, allow a reduction of 60,500 tonnes of CO<sub>2</sub> equivalent (19% compared to the initial level) over an estimated lifetime of 100 years.



### Artificial intelligence

#### Bringing energies together

The Tunnel Factory makes the most of VINCI Construction's cross-disciplinary expertise and develops new solutions, thanks in particular to artificial intelligence, to improve the safety and productivity of our underground worksites.



## HUMAN RESOURCES & DIVERSITY

Our women and men are our greatest asset. The development of their skills and their fulfilment within our organisation is the basis for our current and future success. As committed and responsible builders, we base our ambition on the individual success of our employees in the service of our projects.

### Support

#### Acting for the sustainable development of talent

We are committed to attractive and sustainable career paths. This ambition is supported by a local management that encourages autonomy, responsibility and initiative-taking. We also deploy a comprehensive training policy adapted to the challenges of tomorrow. In 2022, more than 33,000 hours of training were provided to our teams in the fields of safety, the environment, ethics, technique and innovation. We also support our employees in building their career paths within our organisation and the VINCI Group, through the deployment of an HR cycle (annual interview, staff review, individual development plan and feedback).

3.43%\*

This is the training effort within the Major Projects Division

\* of our payroll



### Social commitment

#### Promoting inclusion and diversity

To meet the challenges of our exceptional projects around the world, we rely on international, supportive, responsible and committed teams. Driven by humanist values, we believe in the virtues of exchange, trust, support, development and inclusion of our employees. Our men and women are the cornerstone of our sustainable growth. It is in this context that we are strengthening our prevention of psychosocial risks, in particular by emphasising the importance of listening to our employees and the specific training of our managers. We are committed to fighting all forms of discrimination, upholding equal opportunities and encouraging gender diversity. Under the aegis of the division's management committee, numerous awareness-raising and training initiatives have been put in place to promote good living together.



### Solidarity

#### Committing to solidarity and civic engagement

All over the world, we are committed to making a sustainable contribution to the development of territories. Through our collective commitment and support for solidarity initiatives, we ensure that our activities have a positive societal impact for the benefit of the local communities and the users of our structures.

#### Supporting the commitment of our employees

A sustainable partner of the regions, we also support the initiatives of our employees who are involved in community projects, in particular through the VINCI Foundation and its local branches, such as in Denmark, where our Femernbaelt tunnel project is located (see page 22) or through our SolidariTerr' initiative deployed this year in Germany and the United Kingdom.

#### Acting in favour of local populations

Bringing people together, accelerating the energy transition, working to make territories climate-resilient, imagining the mobility of tomorrow: on every continent, our projects mobilise our expertise to build infrastructure that are useful to everyone.

But we are also committed to ensuring that the realisation of our projects contributes to the improvement of the living environment of local residents. Our participation in VINCI's Chantiers & Territoires Solidaires endowment fund, which supports community projects in the vicinity of our Grand Paris Express worksites, with a particular focus on supporting employment, creating social links and gender diversity, meets our aspiration to contribute positively to the socio-economic ecosystem in the vicinity of our projects.

This ambition is welcomed favourably in all our theatres of operation. In New Zealand, our consortium is supporting a large-scale programme to integrate socially disadvantaged young people from Maori communities, with the aim of developing their skills through training and mentoring. In the United Kingdom, our teams working on High Speed 2 are also supporting employment integration, notably through a free training programme which, since its launch in November 2021, has benefited more than 130 people wishing to build their careers in the construction industry. In Australia, our teams participated in the Brisbane Marathon to raise funds for the Indigenous Marathon Foundation, a charity that promotes health among indigenous people through running.

In 2022, the Chantiers & Territoires Solidaires fund supported

18

associations, to the tune of almost

260,000 €

allocated to the development of their projects of general interest



## OUR TEAMS ARE PROUD TO PROVIDE OUR CLIENTS WITH SUSTAINABLE AND INNOVATIVE SOLUTIONS, AND WE ARE PROUD OF OUR TEAMS...

...who reinvent themselves and act to transform our businesses, building structures that are useful for the development of our regions and for future generations, with the aim of achieving overall performance.



« We have no choice but to be **EXCELLENT**. To seek it out is above all to have a taste for well thought-out and well-executed work. It means giving ourselves the means to always carry out and respect our commitments. And then, it is also to surpass oneself! »

**Henri,**  
team manager



« **TEAM SPIRIT** is about expanding the field of possibilities! Federating energies is essential to complete projects that are much bigger than ourselves. It is together that our challenges are met and our successes celebrated. »

**Julianne,**  
QHSE manager



« **ENTREPRENEURSHIP** frees energies and encourages initiatives, always keeping in mind the collective interest. This is its only limit. It is this that enables us to find solutions for our projects. »

**Marine,**  
project director



« Being humble means accepting that everyone has a contribution to make. **HUMILITY** allows you to keep a cool head, your eyes open and your feet on the ground. And finally, to progress together! »

**Alexandre,**  
project engineer



« In the Major Projects Division, we are fortunate to have a high degree of autonomy and to be given significant responsibilities. The trust placed in us must in turn be accompanied by total **TRANSPARENCY**. Difficulties must be reported and shared so that risks can be managed and even turned into opportunities. »

**Samuel,**  
works manager



# Build Better Together

[www.vinci-construction-projets.com](http://www.vinci-construction-projets.com)

[www.dodincampenonbernard.com](http://www.dodincampenonbernard.com)

<https://vinci-construction.com/en/earthworks-major-projects/>

[www.spiecapag.com](http://www.spiecapag.com)



e-accessibility®

The digital version of this document is compliant with the PDF/UA (ISO 14289-1), WCAG 2.1 level AA and RGAA 4.1 accessibility standards with the exception of the colour criteria. Its design enables people with motor disabilities to browse through this PDF using keyboard commands. Accessible for people with visual impairments, it has been tagged in full, so that it can be transcribed vocally by screen readers using any computer support.

Accessible PDF powered by DocAxess



Communication department: 1973, boulevard de La Défense 92000 Nanterre. — Design and production: CIMAYA.

Photographic credits: © Aerophoto America; © V. Basler; © T. Beal; © Y. Chanoit; © Y.-S. Choi; © J. Chor; © City Rail Link; © P. Costagomes; © A. Destienne/Capa Pictures; © F. Dorizon; © DroneWay; © G. Drouault/PHOTEC PRODUCTION; © J. Espinel; © Femern A/S; © D. Gauducheau; © Greenshot; © HS2 Ltd; © ITER Organization; © M. James; © Kassidy Prod; © Lands and Water Services Ltd; © J. Lecomte The Pulse; © TC Énergie; © TELT C. Moureaux; © Multivista; © P. Rayner/Tideway; © J. Robert; © R. Soret; © Sonder Productions; © A. Soria; © A. Toureau; © VINCI and subsidiaries photo libraries