# Major Projects Division

2021 ESSENTIALS

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# Patrick Kadri

Managing Director of VINCI Construction -Major Projects Division Chairman of VINCI Construction Grands Projets

#### Despite the continuing health crisis, 2021 was a year of remarkable performance for the Major Projects Division, which demonstrated its

resilience through the spirit of solidarity, sense of responsibility and commitment shown by its teams.

A selective approach in choosing our business, differentiating offers, the search for productivity and innovative solutions without compromising the safety of the people working on our sites, rigorous monitoring of our sites and our contracts, and the mobilisation of all our staff in the face of the environmental emergency: these were the factors underpinning the very good results of a year marked by an increase in turnover, profitability, orders and cash flow. The 12,000 demanding, passionate, proud and committed men and women of the Major Projects Division use their culture of operational excellence and global performance to serve their clients and communities, designing and building the sustainable infrastructure of tomorrow while promoting work at regional level and a concern for strengthening social ties. With its solid fundamentals, rich business lines and expertise, and as a benchmark partner for public and private players, the Major Projects Division is pursuing its path towards green, profitable and sustainable development. We approach 2022 in a spirit of serenity and confidence.

# About us

Following in the footsteps of century-old companies, the Major Projects Division is active on five continents. Mindful of their impact on the regions in which they operate, the Division's men and women design and construct buildings and large infrastructure that meet the challenges that we will face in the future: mobility, improving the living environment, preserving the environment and producing efficient sustainable energy. Our performance in figures



**198** projects in progress including 39 worth over €200M



€7.9<sub>Bn</sub>

order book



abroad

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

of revenue generated

of projects contributing projects worth to the preservation over €200M of the environment (eligible for the European classification)

VINCI CONSTRUCTION - MAJOR PROJECTS DIVISION - 2021 ESSENTIALS

7

## **Group structure**<sup>\*</sup>

Around the world, The Major Projects Division brings together expertise and activities dedicated to the largest and most complex worksites.

## Position within the Construction business line

VINCI Construction, a global leader in its business lines, constructs buildings, structures and infrastructure that improve the living environment, mobility and economic competitiveness of the regions. Comprising three complementary components, VINCI Construction provides an unparalleled areas of expertise and has offices in over 100 countries.





\*As at 31 December 2021

# Major projects division<sup>\*</sup>



PATRICK KADRI managing director of VINCI Construction -Major Projects Division chairman of VINCI Construction Grands Projets





JEAN-PIERRE BIZOLLON chairman



BENOIT DENIZOT chairman BRUNO GUY DE CHAMISSO managing director



LIONEL RAVIX operational director France, Mediterranean Europe and United Kingdom



SÉBASTIEN BLIAUT operational director Central Europe, Northern Europe and Russia





DALNG



PHILIPPE TAVERNIER operational director Qatar, Middle East and Africa

DQMA

\*As at 31 December 2021

### **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.



#### THE YEAR IN BRIEF

6,333

employees

In addition to the delivery of the Tokamak complex on ITER, the launch of flagship projects (High-Speed 2 in the United Kingdom, City Rail Link in New Zealand) and the continuation of major projects (Hampton Roads Bridge-Tunnel in the United States, Grand Paris Express in France, Abdelmoumen pumped storage power plant in Morocco, drinking water treatment plant in Cambodia, Ottawa Confederation Line and liquefied natural gas reservoir in Canada) have provided steady levels of business activity. The momentum created by this new cycle of major projects promises an intense year in 2022, also supported by the signature of a new contract for the Transalpine Tunnel in France.

113

projects in progress

including 36 worth over €200M

The extension of the Cairo metro is part of a drive to rethink mobility in the Egyptian capital through the development of a modern. low-carbon public transport network. The network decongestion resulting from these 18km of new tracks will help to improve the living environment of its 20 million inhabitants

£5.7 Br

order book

8 Br

revenue



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



#### THE YEAR IN BRIEF

2021 saw the delivery of two major projects led by Dodin Campenon Bernard: lot GC02 of the Grand Paris Express Line 14 South, and Strasbourg's western bypass. The new success with the signing of a construction contract for the Transalpine Tunnel - following in the footsteps of the puits d'Avrieux project, which is now in operation marks a colourful year. Its business activity increased significantly over previous years, based on its work in Canada renovating the Louis-Hippolyte-La-Fontaine tunnel and its operations at the heart of the Grand Paris Express, including the start of work on the overhead section of line 18.

18

Line 14 South of the Grand Paris Express will connect the regions of the Île-de-France region and benefit more than 260,000 of its inhabitants. It will provide a fast connection between the centre of Paris and Orly airport, which is vital for the 2024 Olympic Games.







### VINCI Construction Terrassement Grands Projets

Around the world, VINCI Construction Terrassement Grands Projets designs and builds large-scale infrastructure that facilitates mobility and contributes to climate resilience. Its know-how in major projects – combined with its expertise in design, geotechnics, topography, the environment and stakeholder consideration, and its ability to carry out its own earthworks and associated structures – ensure that it has overall control of projects.



revenue

#### THE YEAR IN BRIEF

363

employees

On 1 October 2021, following the reorganisation of VINCI Construction Terrassement, VINCI Construction Terrassement Grands Projets was created, emphasising its vocation as a specialist in earthworks and associated activities (drainage, waterproofing, civil engineering) for major projects in France and abroad. 2021 was marked by the commissioning of Strasbourg's western bypass, the operational launch of the flagship High-Speed 2 project in the United Kingdom, and the continuation of major projects (Abdelmournen pumped storage power plant in Morocco, A480 in France, S21 high-speed line in Germany). 2022 promises to be a busy year, featuring the signing of Germany's first public-private partnership: the B247 federal road.

12

projects

### ^

Section 1.4 of the Stuttgart 21 high-speed line, which will connect Stuttgart to Ulm, will improve mobility in North-Eastern Thuringia and facilitate access to the region's motorway network, thereby increasing road safety. This project is one of the largest ongoing works projects in Germany.

> 3. Br

order book

## Spiecapag

With more than 60,000km 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 YEAR IN BRIEF

In addition to the continuation of the Coastal Gas Link project in British Columbia, 2021 was marked by the signing of a contract and launch of operations on the Southampton to London pipeline project won in England with the local subsidiary of VINCI Construction, Taylor Woodrow. 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; in France, where Spiecapag Régions France is engaged in work on a new gas pipeline in Brittany; and in Brazil, where Intech is continuing with the construction of the Marlim Azul pipeline.

55

projects

The 97km 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.





# **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.



#### S FRANCE

West Strasbourg bypass Building environmentally friendly mobility systems

On the outskirts of the European Union's parliamentary capital, Dodin Campenon Bernard and VINCI Construction Terrassement Grands Projets have been involved in France's largest motorway project, which entered service in December 2021. This project is now contributing to the growth of shared mobility, under the leadership of the VINCI Autoroutes operator. The construction of this 24km infrastructure, which has greatly dynamised the Alsatian economic environment, is an exemplary achievement, unprecedented in France in terms of ecological transparency and environmental integration (see p.30 - Environment).

# NEW ZEALAND City Rail Link Supporting urban expansion

In their efforts to reshape the face of a fast-growing city and provide an outline for sustainable and rapid mobility, the VINCI Construction Grands Projets teams leading the Link Alliance consortium are continuing the work begun in Auckland. In an extremely dense urban environment, while maintaining traffic on the North Auckland Line, they are extending the lines by 3.5km (including 3.2km of tunnels) and building 2km of new track and complete rail systems. The breakthrough of our TBM at the end of December at Aotea – one of the three future stations to be delivered in 2024 – marks a decisive milestone in this project, which will enable 54,000 passengers per hour to reach the heart of the city in less than 30 minutes, i.e., twice the current capacity of the network.



#### ▲ FRANCE

#### **Lyon-Turin Euralpine Tunnel** Decarbonising trade flows in Mediterranean Europe

Having already started the preparatory work for the Avrieux puits (four 500 m-deep ventilation shafts), our teams from VINCI Construction Grands Projets and Dodin Campenon Bernard, in conjunction with VINCI Construction France and Webuild, are now engaged in the construction of 23km of twin-tube tunnels for this rail link, which is set to reshape mobility in southern Europe. In line with the European Union's Green Deal, it will stimulate economic and passenger flows while relieving the Alpine roads of one million heavy goods vehicles, resulting in an annual reduction of approximately 3 million tonnes CO<sub>2</sub> equivalent by 2030.





#### CANADA

**Calgary Western bypass** Sustainably connecting local regions

Two years after the commissioning of the Regina highway bypass in Canada, VINCI Construction Terrassement Grands Projets - in partnership with its partners Graham and Carmacks, a Eurovia subsidiary - began construction of the Calgary western bypass in Alberta. All four million cubic metres have already been moved, while earthworks are continuing, and are half complete. This final section of 5km of new roads, including 4 interchanges, 7 bridges and a subway, will complete the ring road project in 2024, encircling the city and connecting it to the rest of the country, and thus helping the local regions to develop sustainably.



#### GERMANY/DENMARK 🔨

#### Femern Tunnel Rethinking mobility for trade in Northern Europe

In 2029, rail and road links between Denmark and Germany will be revolutionised. They will become more sustainable, offering an environmentally friendly alternative to air transport. The faster (7 minutes by train, 10 minutes by car) crossing between Puttgarden and Rødby will promote greater trade in Northern Europe. The "Femernbaelt" is of strategic importance; its construction is an exceptional technical and technological challenge: the world's longest immersed tunnel (18km long) will rest on the seabed. The innovative solution devised by the consortium led by VINCI Construction Grands Projets involves the installation of 89 prefabricated caissons, transported by a specially designed catamaran and assembled at a depth of 40 metres. This unique project – with its focus on excellence, daring and innovation – is now seeing teams coming together and operations gradually starting over the year on both Danish and German soil.

#### CAMBODIA **Bakheng drinking water treatment plant** Making water resources available

On the outskirts of Phnom Penh, VINCI Construction Grands Projets is building new drinking water supply facilities to handle the urban expansion of the Cambodian capital. With a total production capacity of 390,000m<sup>3</sup> (following the announcement of the exercising of the conditional tranche option during the year), the infrastructure will serve nearly two million inhabitants from 2023. The installation of 18,000 square metres of solar panels to power the treatment plant will reduce the environmental footprint of the project and demonstrates the Major Projects Division's commitment to renewable energy and sustainable solutions.



# USA Hampton Roads Bridge-Tunnel Modernising road networks

The arrival of the TBM in Norfolk in December heralds the unprecedented challenge that awaits VINCI Construction Grands Projets, with drilling soon to start on the largest tunnel ever built by its teams. Together with its partners, including Dodin Campenon Bernard, they are involved in the largest infrastructure project ever undertaken in the state of Virginia. In response to congestion challenges on its freeway network, it called on our expertise for the design and construction of 5.3km of offshore viaducts and new tunnels, in addition to the widening of 14.5km of existing roads. The work currently in progress, carried out without interrupting traffic, will provide a smooth flow of traffic for the 100,000 daily users from the end of 2025.



#### CANADA

### LNG tank

#### Building major energy infrastructure

We are working on the Isle of Grain at the mouth of the Thames on the construction of a 190,000m<sup>3</sup> LNG tank for what will be Europe's largest LNG terminal, and our expertise as an EPC contractor is also being applied to the Kitimat project in British Columbia, on a 225,000m<sup>3</sup> tank. Entrepose Contracting and VINCI Construction Grands Projets achieved a technical feat by lifting the 92-metre diameter, 1,540-tonne roof – the heaviest ever built by VINCI Construction – using air pressure and completed the civil engineering operations on the concrete roof, allowing the indoor works to be launched before winter. This project will help supply Asian markets with LNG and strengthen Canada's position as a major exporting country.



ABDELMOUMEN



transition

#### Abdelmoumen pumped storage power plant Accelerating the energy

VINCI Construction Grands Projets and VINCI Construction Terrassement Grands Projets are continuing to build the Abdelmoumen pumped storage power station on the slopes of the Anti-Atlas mountains, thereby supporting the Kingdom of Morocco in developing its renewable energy sources. This giant "battery" with a capacity of 350 MW, which also requires the construction of two basins of 1.3 million m<sup>3</sup> each and a penstock over a 550-metre drop, will provide green energy on demand to support the local public electricity grid and offer a sustainable solution to the intermittent nature of wind energy. This extraordinary project has an ambitious environmental component and is one of the winners of the first VINCI Environment Award (see p.30 - Environment).

How do you store electrical hergy with a pumped storage power plant?



# FRANCE Grand Paris Express Designing the urban mobility of tomorrow

Grand Paris Express is intended to revolutionise mobility in the Île-de-France region around Paris and provide a new service for its 12 million inhabitants. At the heart of Europe's largest urban development and mobility project, the companies of the Major Projects Division are hard at work on a number of flagship projects, demonstrating the complementary expertise and synergies that form the Division and enable it to respond to the unique challenges of its clients.

The complete delivery of the 8km of tunnels and technical shafts, and the handover of the Villejuif Institut Gustave-Roussy station, were a key milestone in the year of our teams working on the Fort d'Issy - Villejuif Louis Aragon section of Line 15 (lot T3C). Of the five stations in this section, the dimensions (65 metres in diameter) and depth (42 metres) of this last station – which will link Line 15 South to Line 14 South – represented an extraordinary challenge for the VINCI Construction Grands Projets teams.





Line 14 South was also the scene of ongoing major operations for the consortium led by Dodin Campenon Bernard, completing (after 72 months of activity) the construction of a 4.6km tunnel and the construction of the new Kremlin-Bicêtre Hôpital station, prior to the line's entry into service in mid-2024.

Our two entities have also begun work on two lots for line 18, which will provide mobility for 110,000 daily users by 2027. The underground section, running from Massy to Orly, saw the successive launch of our two TBMs – which will drill a total distance of 11.8km – while at the same time the construction of 3 stations was undertaken. In close collaboration with our client, Société du Grand Paris, we have also launched the production of ultra-lowcarbon concrete segments: a French first, symbolising our shared ambition to reduce the environmental impact of our worksites, and the fruit of an innovation delivered by VINCI Construction via its Exegy brand (see p.34 - Innovation)!

The first piers of the 6.7km viaduct, which will contribute to the development of the Saclay centre of excellence, have also been erected on the overhead section.

A laboratory of ideas for energy transition, a driving force for the opening up and attractiveness of the Paris region, the Grand Paris Express is a testament to the technical excellence and combined expertise of the companies in the Major Projects Division.



#### CANADA 🔁 **Coastal GasLink** Transporting natural gas in complex environments

The construction of the Coastal GasLink poses an extreme logistical challenge that Spiecapag has continued to meet on the 82km route through the Canadian Rockies that was awarded to it. The pipeline through British Columbia will bring natural gas from Dawson Creek to the northwest of the province. It will supply Asian markets, contributing to thieir policy of energy diversification and transition, and cementing Canada's position as a leading exporter. British Columbia also saw Entrepose Contracting's teams construct a 225.000m<sup>3</sup> LNG tank, demonstrating the synergies and complementary know-how of the Major Projects Division.



#### **S** FRANCE

#### Waste-to-energy plant in **Ivry-sur-Seine**

#### Turning waste into a clean and almost limitless source of energy

The transformation of the lvry/Paris XIII multi-purpose centre of Syctom, the metropolitan household waste agency, into a state-of-the-art energy recovery unit showcases the Group's expertise, especially that of VINCI Environnement, which is in charge of recovery process (water/steam cycle and electricity production) and the treatment of the installations' flue gases within the IP13 consortium. One of the largest projects of its kind in France, this project is intended to serve as a European benchmark: this contemporary, green architectural facility, integrated into a changing urban landscape, will treat 350,000 tonnes of household waste each year, while improving its environmental performance.



#### ▲ UNITED KINGDOM **High-Speed 2 line** Bringing people together

Better connectivity with the North of England, more capacity to boost rail freight, and low-carbon mobility: these are the three challenges posed by the largest infrastructure project in the United Kingdom in the 21st century, into which VINCI Construction Grands Projets and VINCI Construction Terrassement Grands Projets are breathing life, working with their partner Balfour Beatty on lots N1 and N2 to build 200 engineering structures and tunnels and 90km of new track in the Birmingham region. At the end of December, the first TBM in the Midlands was launched under Long Itchington; the tunnel it creates will preserve the ancient woods through which the line passes. At its peak, nearly 10,000 people will be involved in this project, which will reshape mobility in Britain.

At the same time, the construction of one of the UK's future largest railway stations is now under way in London. Old Oak Common - a part of the High-Speed 2 project – is a modern, ambitious environmental showcase, with our consortium committed to reducing the carbon footprint of its construction by 50% compared to a conventional design. Featuring 2,720 solar panels, 10,000 LED bulbs, 550 bicycle spaces, 13,000m<sup>2</sup> of glass, and 14 platforms, including six 450-metre underground platforms dedicated exclusively to the High-Speed line: 250,000 passengers will use this key hub in the UK capital every day.



# (ii) Safety

Our women and men are our greatest asset. Our duty is to preserve their physical and moral integrity an as well as that of all those involved in our work sites and projects. Their health and safety are among the most important pillars of our operational performance.

Safety is a core value of our companies and is omnipresent: in the design phases, our Safety in Design initiative – common to all VINCI Construction entities – enshrines this ambition, and aims to ensure optimum safety during the construction, operation and maintenance of our structures.

During the execution phase, our "zero accident" culture is built on the search for excellence and continuous training, team spirit and individual and collective responsibility, transparency and the implementation of organisational structure, processes and safeguards of the highest standards.

To this end, 2021 has created a dynamic that aims to increase the awareness of our workers on the ground and a sense of a shared responsibility; for example, via a vast training campaign for our team leaders, site managers and works supervisors in identifying major risks in all our activities.

### V

#### A PROACTIVE APPROACH

Safety Days - a cross-functional initiative of VINCI's Construction business line - is an essential vehicle for sharing values and resources, ensuring that our teams have the necessary skills to prevent risks. With 100% live conferences, 3D workshops and personalised tours of our construction sites throughout the week of 22-28 May, this flagship event is a reminder that our employees personally embody this shared responsibility, and testifies to the importance of safety, which each and every one of us makes a daily reality.



## **Human Resources**

Our ambition is to be a responsible company, based on human values that promote the individual success of our employees in the service of our projects.

Listening to, trusting and supporting each person in their career path forms the basis for our companies' sustainable overall performance.

In this way, we are committed to the integration and development of our employees and strive to ensure greater diversity in our teams. At the request of the company's Management Committee, the Grands Projets au Féminin Steering Committee has launched new training, promotion and dedicated communication initiatives to encourage gender diversity.

We are also working to better prevent psycho-social risks by improving training and awareness among our managers.

Finally, we are continuing our training efforts with the aim of better integrating our employees, giving them greater insight into our business areas and sharing our knowhow and management culture with them.



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# Civic engagement

Setting an example: we see this as our mission as builders, and this is why we ensure that our activities are aligned as closely as possible to the needs of the regions and communities with which we interact.

Our participation in VINCI's "Chantiers et Territoires Solidaires" fund - which supports community projects in the vicinity of the Grand Paris Express projects in which the Group and the Major Projects Division are involved - meets this aspiration. But the same is true in each of our theatres of operation. From the support for food banks shown by Spiecapag in British Columbia to the training and partnership programmes with the German Federal Employment Agency established by VINCI Construction Terrassement Grands Projets, and the commitment of VINCI Construction Grands Projets on the Tideway East project with the London Design and Engineering University Technical College, through to the restoration of the lubai Bin Muta'em Bin Adi mosque



by QDVC in Qatar, our local initiatives embody our shared ambition to leave our mark on the territories where we operate in ways that transcend the works themselves. Dodin Campenon Bernard has also renewed its sponsorship agreement with Voies Navigables de France, reaffirming its support for the Canal du Midi replanting programme. This multi-faceted heritage contributes to the well-being of the population for a better quality of life and a sustainable future.

23 general-interest projects supported by the "Chantiers et Territoires Solidaires" fund in 2021

#### ACTION AT GRASS-ROOTS LEVEL

Since its creation, VINCI's Chantiers et Territoires Solidaires fund has supported 71 general interest projects, including 23 in 2021 alone. This involvement in the local community and economic fabric illustrates our desire to establish a lasting partnership with our stakeholders and to participate in the life of the neighbourhoods surrounding our Grand Paris Express construction sites.



## Ethics and human rights

Leading by example is central to our activities. Our commitment to full transparency and faultless conduct helps forge a bond of trust with our clients and stakeholders.

Integrity, respect for human dignity and the fundamental rights of people and local communities: these are the core values of the Major Projects Division, which it endeavours to scrupulously apply in strict accordance with the VINCI Code of Ethics and Manifesto. For this reason, we have initiated and continued our action plans to ensure that all our activities are in line with this absolute requirement. As a signatory of the United Nations Global Compact since 2003, we support civic commitment of our employees and strive to favour sustainable projects that create social bond, help those excluded from the labour market findwork, value our heritage and contribute to the development of our local regions.

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# Environmental ambition

At a time when VINCI is mapping out a decarbonised, virtuous and responsible future for construction, we are striving within the Major Projects Division to contribute to the development of sustainable solutions, ensuring the long-term viability of our models and our structures.

Ecological transition is at the heart of what we do, from hydraulic and soft mobility infrastructure to energy production and storage: the very nature of many of our businesses directly echoes green growth. At the end of the year, we launched our brand Hyfinity dedicated to designing and constructing green hydrogen production facilities. A veritable centre of hydrogen-focused expertise at VINCI Construction, it now joins VINCI Construction Grands Projets subsidiaries that are actively contributing to the energy transition - such as VINCI Environnement, which specialises in waste-to-energy conversion; Geocean, whose know-how in the construction of SWAC (seawater air-conditioning) systems in particular contributes to a low-carbon economy; and Geostock, the world leader in underground energy storage, which is developing compressed-air and hydrogen storage solutions.

2021 also marked the effective introduction of our 2030 Environment Plan, which gives us the means to achieve our carbon reduction targets through coordinated action based on three priorities: climate change, the circular economy and the natural environment. Everywhere, we are making control over our environmental footprint a key performance criterion and ensuring that we offer our clients streamlined, greener solutions. Our "Environment in Design" approach, which ensures that the environmental impact of our works is taken into account right from the design phase, and Actons la bionécessité, which raises our teams' awareness and provides them with practical tools for preserving and actively promoting biodiversity – bear witness to our collective awareness.

No fewer than 130 initiatives were submitted by our employees as part of the first VINCI Environment Awards, with two winners: the optimisation and eco-use of water on the slopes of the Anti-Atlas Mountains, where our teams are building the Abdelmoumen pumped storage power plant in Morocco; and the use of Exegy, with which we are associated through the expertise of the Tunnel Factory, for ultralow-carbon segments in the heart of Greater Paris on our Line 18 project (a first in France!). These initiatives offer a concrete illustration of our shared desire to meet the challenges of climate change together and to place the Major Projects Division in the vanguard of the Group's environmental ambitions



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In Cali, Colombia, our subsidiary Water Management International (WMI) identified and repaired 4,000 leaks in the city's 2,500km water distribution network. Total savings: 86,000 litres of water per day!

86,000 litres

# SAVING OUR WATER RESOURCES...

In addition to rainwater collection and the Aqua Eco spray boom, which reduces water consumption on our sites by around 40%, particularly in areas of hydric stress (the Abdelmoumen pumped storage power plant in Morocco and the 2F1 railway depot in Abu Dhabi), the use of innovative fleet management software and hybrid machines is becoming increasingly common on our projects.

reduction of water consumption





### <u>^</u>

...AND ENERGY

Decarbonising mobility, reducing emissions from heavy industry, supporting energy companies in their transition to new energies: Hyfinity's ambitions are up to the challenges of the energy transition.



Discover our expertise and innovations for the ecological and energy transitions in video

#### **PROVIDING GREENER** TRANSPORT SOLUTIONS

Θ

Each unique project is subject to measures to drastically limit its environmental impact during the construction phase. These include river transport: the Seine for VINCI Environnement and its lvry-sur-Seine Energy Recovery Unit project, and the Thames for the teams working on the Tideway East storage tunnels: in the latter case, barges remove the need for 250,000 lorries and limit carbon emissions by almost 20,000 tonnes!







COMMITTING TOGETHER: VINCI ENVIRONMENT DAY

Environment Day takes place every year on late September and plays a crucial role in raising awareness of our environmental issues among

our teams. Our employees around the world participate in conferences,

workshops and fun activities to demonstrate the growing importance

of the environment, for which they are responsible on a daily basis.

### PARTICIPATING IN THE REFORESTATION

Through their active contribution to the challenges organised on VINCI's Environment Day, our employees have helped set up a partnership with Reforest'Action, which has resulted in the support of projects to plant 4,000 trees in Colombia, Côte d'Ivoire and France - three countries in which we operate. And let's not forget the greenhouses set up by Geostock at the Shalapa site in Mexico, helping to reforest the neighbouring communities.



#### Visit the Major Projects Division page on the Reforest'Action website

#### PRESERVING BIODIVERSITY

The Western Strasbourg bypass has been praised for its unprecedented environmental measures, and has implemented numerous initiatives, including the preservation of Alsace's Great Hamster and the construction of 120 ecological transparency structures over 24km, not to mention the 1,000 hectares of compensatory areas, i.e., five times the project's total area.

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# Technical excellence, innovation and research & development

The excellence of the Major Projects Division, and its ability to design and build the most complex infrastructure, derives from our complementary expertise and extensive engineering capabilities, with strong technical departments of more than 500 engineers (BIM, geotechnics, methods, systems, logistics, concrete, construction, structures, hydraulics, underground works, LNG, etc.).

In conjunction with an agile, project-oriented structure, our know-how enables us to devise and develop innovative, global and scalable solutions that meet the unique challenges faced by our clients.

The synergies we cultivate form the foundation and keystone of this structure. They are rooted in common operational guidelines and shared innovation programmes, such as LinKtech and the Tunnel Factory, which makes use of VINCI Construction's cross-disciplinary expertise in tunnel construction to develop new offerings using in particular artificial intelligence. This year saw the implementation of innovative tools on our sites – a symbol of fruitful collaboration illustrated by the first edition in September of a day-long programme of meetings between a hundred internal experts and field engineers. Our activities are also structured around a differentiating process approach, which details their operating methods and ensures that related risks are identified and controlled. This approach, which takes into account the specific nature of the local problems we encounter, is the guarantee of our operational excellence and the quality of the works we design and build all over the world.

The aim of the Major Projects Division is to offer solutions tailored to the major social and climate challenges of today and tomorrow. This common goal – to achieve overall levels of performance that create technical, economic and environmental value for our clients, stakeholders and future users of our works – guides our innovation policy and prompts us daily to rethink our business approaches and methods in order to build a responsible future and sustainable constructions together.



for a shared innovation and cutting-edge expertise in all our businesses



emissions for our Exegy ultra-low carbon concrete (VINCI Construction) compared with traditional concrete

## A SHARED DYNAMIC

With the Tunnel Factory, LinKtech and Kairos – a three-week planning tool designed by Dodin Campenon Bernard that provides real-time management indicators and facilitates the daily work of teams – the Major Projects Division uses innovation to underpin its projects. Similarly, Linaster, developed by VINCI Construction Terrassement Grands Projets and implemented on the High-Speed 2 project, increases our productivity by capturing data on our machines and automatically generating equipment efficiency indicators.





#### S FULL BIM PROJECT DEVELOPMENT

A first, performed for the extension of the Arturo Merino Benítez International Airport in Santiago de Chile, that enables the 100% digital management of the concessionaire's operations and maintenance.

#### INNOVATIONS DRIVING OUR ENERGY PERFORMANCE

The Major Projects Division implements innovations that support environmental transition, including circular economy and recycled steel approaches; the launch of a prototype wastewater treatment plant that is virtually energy self-sufficient; and low-carbon concrete with VINCI Construction's Exegy brand, reducing emissions by up to 70% compared with traditional concrete.



# REAL SUCCESS IS THE SUCCESS YOU SHARE



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