### COMPANY PROFILE

2025 EDITION



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### COMPANY PROFILE



2025 EDITION



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# CHAPTER 01

# GROUP



GROUP

## WHO WE ARE

webuild #



webuild 🖉

Global player in the construction of large complex infrastructures, leader in the water sector, leading Italian contractor, among the international top players in Australia, United States, Europe.

For about 120 years we have contributed to the growth of the communities where we work, supporting clients in reaching their goals, with a "stay lean and go fast" approach, adopting flexible and safe solutions to satisfy our clients, pursuing efficiency and sustainable solutions to protect and enhance the environment.

Webuild has a privileged position in the infrastructure sector as it is one of the few global operators with a strongly SDG-oriented core business directed towards the development and building of infrastructure that directly contributes to the achievement of the SDGs and transition to a low-carbon economy.

The company has a dynamic, constantly changing structure to underpin business growth in line with international best practices.

Listed on the Borsa Italiana stock exchange in Milan, the Group has a qualified shareholders base, with CDP Equity and other Italian financial institutions to provide support to its development. Webuild is committed to creating value for its stakeholders, maintaining a close rapport with them through periodic meetings and communications about its activities. The acquisition, over the years, of industrial realities such as Fisia Italimpianti, CSC Costruzioni, Clough, Astaldi and NBI, Seli Overseas, Cossi and Lane, offers us a net competitive advantage on the international markets, thanks to the further skills that these companies brought to the Group, allowing us to reach evermore ambitious goals, even in complementary sectors to traditional ones.

Webuild intends to cultivate its role as partner to its clients in their climate and energy transition, taking on the challenges posed by the ongoing global megatrends, such as climate change, demographic growth, urbanisation and water scarcity.

#### GROUP THE SECTORS WE WORK IN



- $\rightarrow$  Metros
- $\rightarrow$  High Speed Railways
- → Railways
- $\rightarrow$  Roads & Motorways
- $\rightarrow$  Bridges & Viaducts
- $\rightarrow$  Ports & Sea works

#### CLEAN HYDRO ENERGY

- $\rightarrow$  Hydroelectric Dams & Plants
- $\rightarrow$  Pumped Storage

#### CLEAN WATER

- $\rightarrow$  Desalination & Water Treatment
- → Wastewater Management Plants
- $\rightarrow$  Hydraulic works
- $\rightarrow$  Irrigation dams

#### GREEN BUILDINGS & OTHER

- ightarrow Civil and Industrial Buildings
- $\rightarrow$  Stadiums
- $\rightarrow$  Hospitals
- $\rightarrow$  Airports
- → Energy Transition Projects

### CHAPTER 02

F



KEY FIGURES OUR VALUE IN NUMBERS

#### **REVENUES IN 2024**

## €12 bln

#### YEARS OF ENGINEERING AND CONSTRUCTION

~120

AVERAGE DIRECT AND INDIRECT GLOBAL WORKFORCE

+92,000

NATIONALITIES

125

#### TOTAL ORDER BACKLOG

## €63 bln

#### CONSTRUCTION BACKLOG

## >€54 bln

PERCENTAGE OF NEW PROJECTS ACQUIRED IN 2024 IN KEY MARKETS WITH LOW-RISK PROFILE

>95%

PERCENTAGE OF CONSTRUCTION BACKLOG FROM PROJECTS THAT CONTRIBUTE TO SDGs ADVANCEMENT

# STRENC

## CHAPTER 03



STRENGTHS

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### THE PILLARS OF OUR COMPETITIVE ADVANTAGE



#### **OPERATIONAL EXCELLENCE**

- → Global Group focused on large-scale civil engineering projects.
- → Outstanding skills and qualifications in key segments and key iconic projects worldwide.
- → Long and successful track record dating back about 120 years.
- → Proven ability to generate shared value in local markets, working closely with all the involved stakeholders.

#### SUPPLY CHAIN AGGREGATION

- → Capacity of aggregating and coordinating a structured and innovative supply chain, optimizing synergies between partners, suppliers and stakeholders, to ensure maximum efficiency and maximum added value.
- → Promotion of a collaborative ecosystem, favouring the development of local skills and knowledge transfer between the various supply chain actors, benefiting the entire sector.
- → Focus on shared innovation, making use of advanced technologies and cutting-edge methods to maximize efficiency, quality and the sustainability of projects.
- → Supporting the growth of local partners, strengthening the industrial texture in reference markets through strategic investments and long-term collaborations.
- → Focus on creating a shared culture of quality and work safety.

#### EFFECTIVE COMMERCIAL STRATEGY

- → Innovative commercial plan based on Reliability & Capability assessment.
- → Strong focus on market opportunities while managing risk.
- → Ability to compete selectively, focusing on projects with best balance between available resources and risk/reward profile.
- → Strict selection of partners/suppliers of high quality.
- → Commercial strategy and project selection centred on a long-term strategic vision, with a rigourous offer approach based on an attentive 360° analysis of each single project of interest.

#### RESPONSIBLE BEHAVIOUR: ROBUST ESG STANDARDS

- → Strong set of ethical principles: integrity, legality, correctness, transparency, and sustainability.
- → Framework of policies and governance systems compliant with the highest standards.
- → Rules and procedures to safeguard people, environment and society at large.
- → Clear and transparent communications towards different stakeholders.
- → Labour rights protections and promotion of safe and secure working environments for all workers.

#### SOLID FINANCIAL STRUCTURE

- → Highly liquid balance sheet, with great attention to operating profitability and cash generation.
- $\rightarrow$  Efficient use of capital.
- → Focus on maintaining adequate financial leverage.

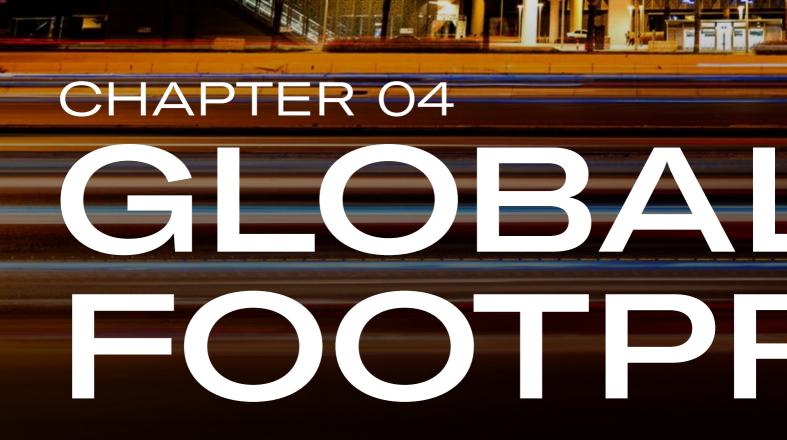
#### SIGNIFICANT GEOGRAPHICAL DIVERSIFICATION

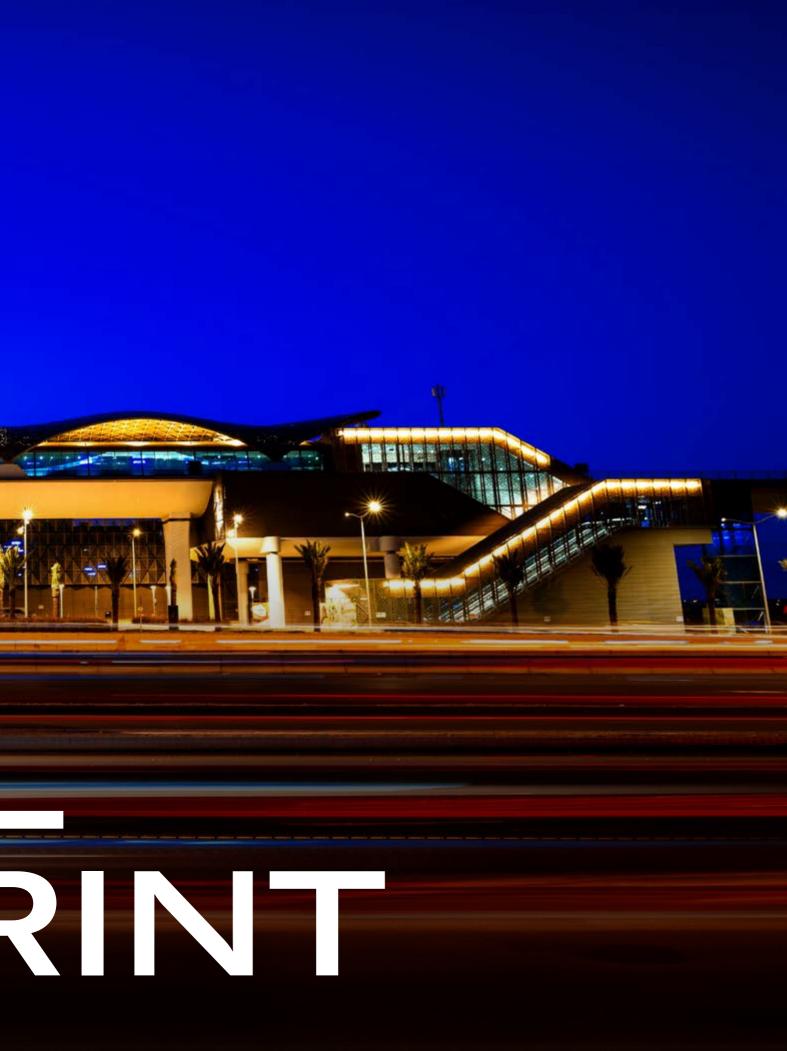
- $\rightarrow$  Large and long-term order backlog.
- → Significant presence in high-growth markets: Italy, Australia, North America, Europe and Middle East.
- → Unique track record of large size projects performed in more than 100 countries.
- $\rightarrow$  Proven ability to penetrate new markets.

#### EFFICIENT ORGANIZATION, CHANGE MANAGEMENT, INNOVATION

- $\rightarrow$  Proven M&A execution with skills integration and rationalization.
- → High level of expertise and optimized industrial processes, from the selection of potential projects to the preparation of bids, from supply chain management to contracts execution.
- → Some best in class innovation processes and products for design, planning and construction.
- → Innovative processes to increase competitiveness (costs, safety, quality, time of execution and environmental footprint).

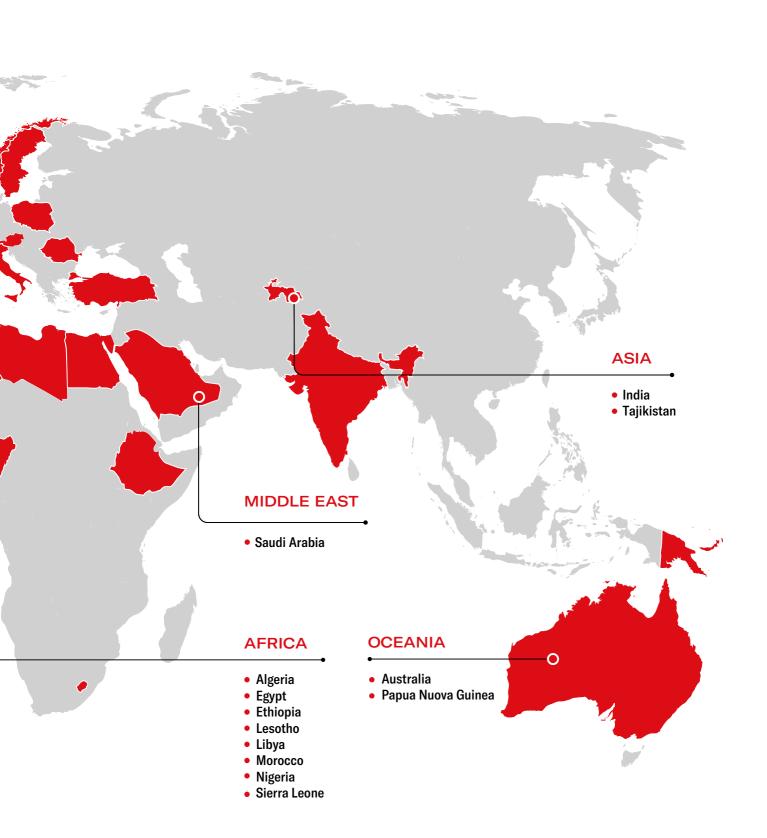




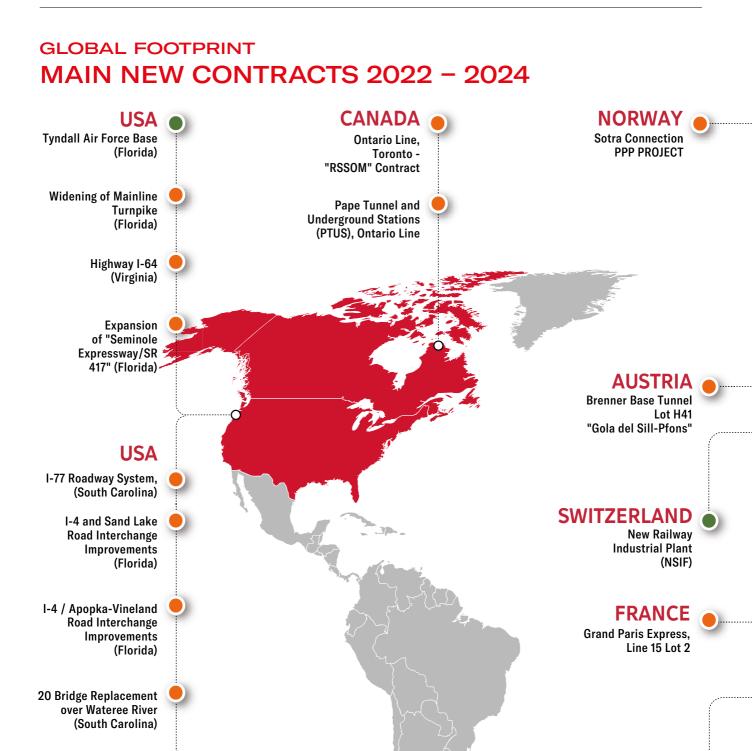


#### GLOBAL FOOTPRINT WEBUILD WORLDWIDE





#### **COMPANY PROFILE**



I-275/I-4 Highway Interchange, Tampa (Florida)

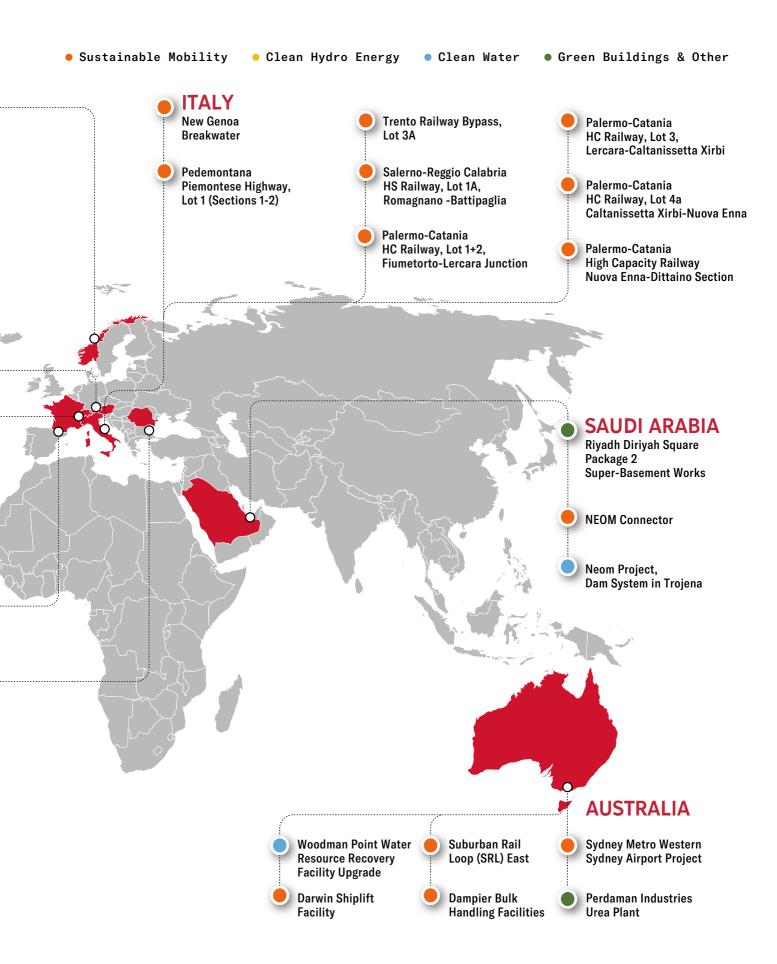
ROMANIA

Sibiu-Pitesti Highway Lot 3

Caransebes-Timişoara-Arad Lot 3

Caransebes-Timişoara-Arad Lot 4





#### GLOBAL FOOTPRINT OUR CONTRIBUTION TO THE UN SDGs (UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS)



#### ~90%

percentage of construction backlog from projects that contribute to the achievement of the SDGs

#### CONSTRUCTION BACKLOG ACCORDING TO BUSINESS AREA





13% Clean Hydro

8% Green Buildings & Other



#### OUR CONTRIBUTION TO THE FIGHT AGAINST CLIMATE CHANGE



#### EU TAXONOMY ALIGNMENT



#### ~95 million

people worldwide with the best access to water, energy, mobility and public utility infrastructures thanks to the Group's projects currently being built

#### -28% GHG emissions

Greenhouse gas emission intensity Scope 1&2 (2024 vs. 2022) \*

\* Scope 1&2 indicates the CO2 emissions coming from the consumption of fuels (Scope 1) and electricity (Scope 2)

### CHAPTER 05



BUSINESS OUR TRACK RECORD

#### COMPLETED PROJECTS



#### RAILWAYS

## 13,648 km

#### TUNNELS

## 3,462 km

#### DAMS AND HYDROELECTRIC PLANTS





ROADS AND MOTORWAYS

## 82,577 km

METROS

891 km

BRIDGES AND VIADUCTS

1,022 km

INSTALLED CAPACITY

53,659 MW

COMPANY PROFILE

#### BUSINESS

### SUSTAINABLE MOBILITY

- $\rightarrow$  Metros
- → High Speed Railways
- $\rightarrow$  Railways
- $\rightarrow$  Road & Motorways
- $\rightarrow$  Bridge & Viaducts
- $\rightarrow$  Ports and Sea works

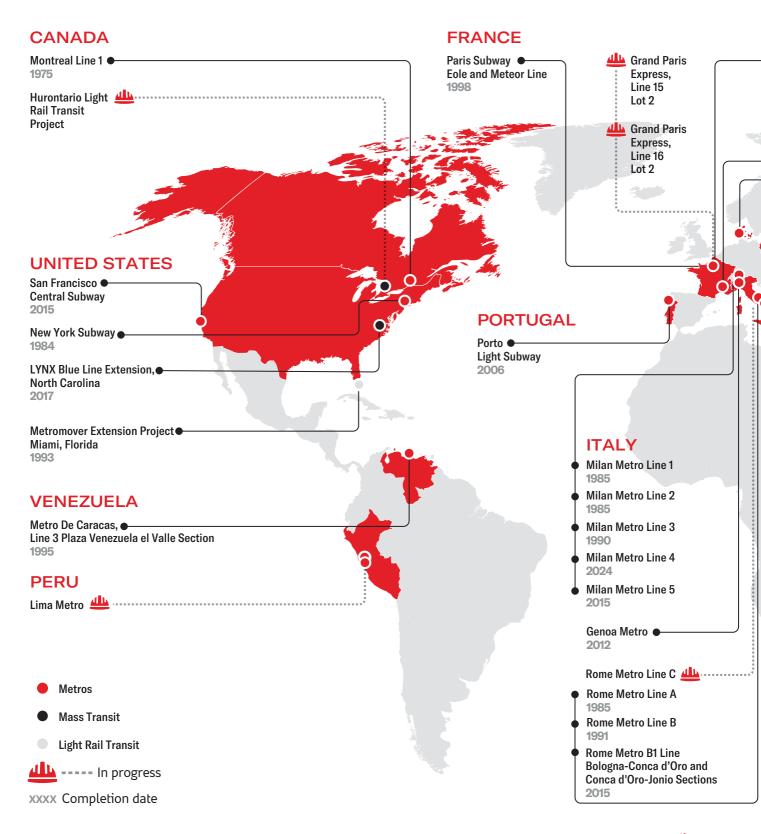
The sustainable mobility sector is one of the most promising business areas for the infrastructure sector. It is expected that passenger traffic alone will grow by 50% within 2030, to then double by 2050, while only 16% of global urban travel currently takes place using public means of transport.

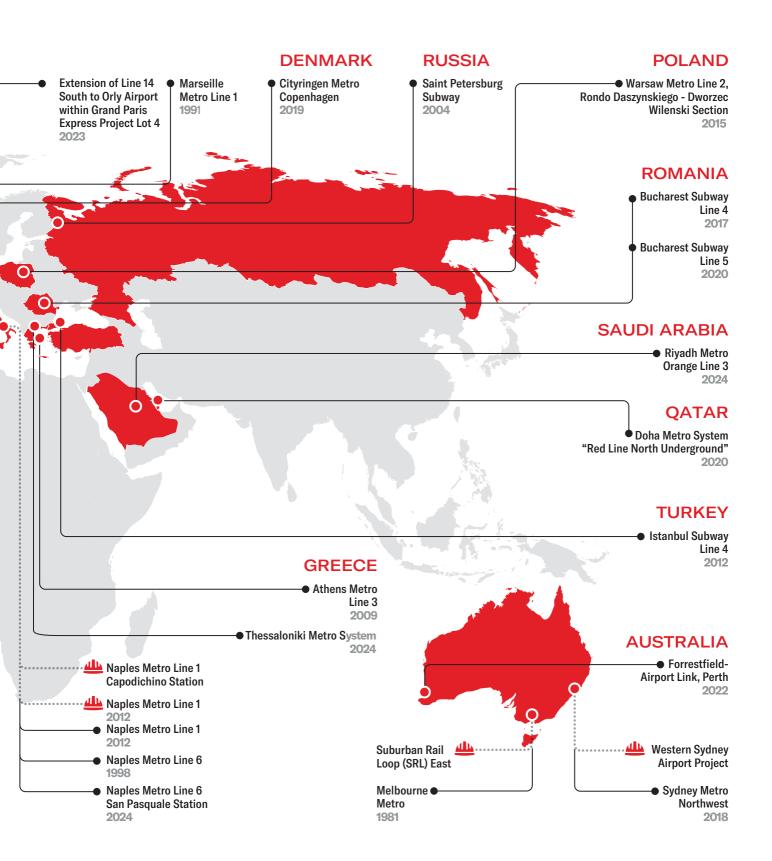
Rail transport is pivotal to government plans to counter climate change. The role played by the metro systems in urban centres is equally important. Metro systems exist in around 200 cities, transporting more than 50 billion people a year and keeping the equivalent of hundreds of millions of vehicles off the roads each day.

The metro projects under construction alone will allow the fast, efficient and sustainable transportation of more than 4 million people a day on state-of-theart infrastructure, delivering a potential annual reduction in  $CO_2$  emissions of more than 1.5 million tons. The highspeed railway projects will shorten travel times by an average of 40%, providing around 34 million people with safe, rapid and low-carbon services that are one ninth of those produced by airplanes. The ongoing railway projects will lead to a potential annual reduction in emissions of about 6.6 million tons of  $CO_2$ .

Road infrastructure works will continue to be fundamental to move goods and people both in developed economies (where the focus is mainly on modernisation and traffic decongestion) and low-income countries.

#### BUSINESS MAIN METROS





#### **COMPANY PROFILE**



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# ROME METRO LINE C

The capital's new metro line: a blend of sustainability, culture and innovation

Line C represents an unprecedented engineering challenge for the city's underground. Crossing Rome from south-east to north-west, it connects the outskirts to the city centre. At 26 km long - 17 underground and 9 aboveground - it comprises a total of 29 stations, from Monte Compatri/Pantano to Clodio/ Mazzini. Construction work is proceeding in functional sections. The stretch from Pantano, the southerneast terminus, to San Giovanni is already in operation: 19 km of tracks with 22 stations and a depot/workshop. The next stations to join the line will be Porta Metronia and Colosseo/Fori Imperiali, along with Venezia station in the historic centre, which is currently under construction. These will be followed by Chiesa Nuova, San Pietro, Ottaviano and Clodio/Mazzini, which are in the design phase. The line's most unique feature is its archaeo-stations, which boast fully fledged museums integrated into the stations themselves, connecting the key cultural areas of the city by means of a route adorned with the archaeological finds unearthed during excavations: in addition to San Giovanni, which is now operational, Porta Metronia, Colosseo/Fori Imperiali and Venezia will also be archaeo-stations.

#### **TECHNICAL/PRODUCTION KPIs**

1,830,000 m<sup>3</sup>

285,000 tons steel\*

4,400,000 m<sup>3</sup> underground excavations\*

#### SUSTAINABILITY KPIs

### 800,000

passengers/day (maximum capacity)

-310,000 tons/year

#### 2

# 585,000 m<sup>3</sup>

archaeological excavations

\* Data pertaining to the main Monte Compatri/Pantano - Clodio-Mazzini section of the line





# CAPODICHINO STATION (NAPLES METRO LINE 1)

### A new mobility hub for the city of Naples

The station is part of the Naples Metro Line 1 upgrade and development project. Once completed, it will help to make Naples one of the first cities in the world that can boast a direct underground connection linking the port, airport and mainline railway network, including high-speed trains, with significant benefits for travel times and traffic volumes. The project involves the construction of a new station to serve Capodichino airport and the redevelopment of the surrounding urban area. Designed by Ivan Harbour (RSHP Architects) and inspired by the Pozzo di San Patrizio in Orvieto, the areas of the station that will be open to the public will have a circular layout with a diameter of about 33 m and a maximum depth of about 50 m. The circular portion is a single open-plan area with eight central lifts and four spiral staircases that lead up along the walls to the open entrance hall at street level. The roof of the station – which is made of steel, glass and concrete – is reminiscent of a hangar and weighs 450 tonnes. **TECHNICAL/PRODUCTION KPIs** 

70,000 m<sup>3</sup> concrete used for the entire structure

8,000 tons steel used for the entire structure

#### SUSTAINABILITY KPIs

9 min airport-city centre connection time

**15,000,000** passengers expected per year

### +200,000 m<sup>3</sup>

land reused to redevelop the area



#### AUSTRALIA

# SUBURBAN RAIL LOOP EAST PROJECT - TUNNELS NORTH

A project that will transform public transport in Melbourne amid strong population growth in the coming years

Webuild leads the joint-venture designated to design and build the Tunnels North contract of Suburban Rail Loop East, a project that will transform public transport in Melbourne amid strong population growth. Suburban Rail Loop, of which the East section is a part, will improve travel efficiency for more than 80% of Melbournians and take more than 600,000 cars off the roads every day. Webuild's contract entails the excavation of two parallel tunnels for nearly 10 kilometres between the future stations of Box Hill and Glen Waverley, the creation of 39 cross passages between them, two station boxes, two tunnel access shafts, and one intervention and ventilation shaft. The tunnels will be excavated using tunnel-boring machines (TBMs).

#### **TECHNICAL/PRODUCTION KPIs**

**2** parallel tunnels

### 39

cross passages

#### 2

station boxes

#### SUSTAINABILITY KPIs

#### >80%

Melburnians benefiting from the project\*

### >600,000

cars off the road every day\*

\* Figures referred to the whole Suburban Rail Loop Project



### FRANCE

# GRAND PARIS EXPRESS LINE 15 WEST LOT 2

Part of the most innovative sustainable mobility project in Europe

Webuild has undertaken a joint venture to design and construct 4 underground stations, 7 km of tunnels and 6 functional works for Line 15 West of the Grand Paris Express, currently the most important and innovative sustainable mobility project in Europe. The route of the line will run between Pont de Sèvres and Saint-Denis Pleyel stations. Its construction will be guided by the key principles of eco-design and reduction of the environmental impact of the works. As such, less carbon-intensive construction concrete and materials with a lower environmental impact will be used. Overall energy consumption will be mitigated thanks to energy recovered from the installations, technical equipment and train braking. There are plans for green terraces on the roof of the stations, including 50% of the trees being native species to ensure biodiversity. To excavate the tunnels, Webuild intends to use a TBM (Tunnel Boring Machine) with a cutter head spanning 9.86 m in diameter and a length of over 100 m.





#### **TECHNICAL/PRODUCTION KPIs**

### 7 km tunnels

500,000 m<sup>3</sup> total volume of earth excavated (estimate)

### 79%

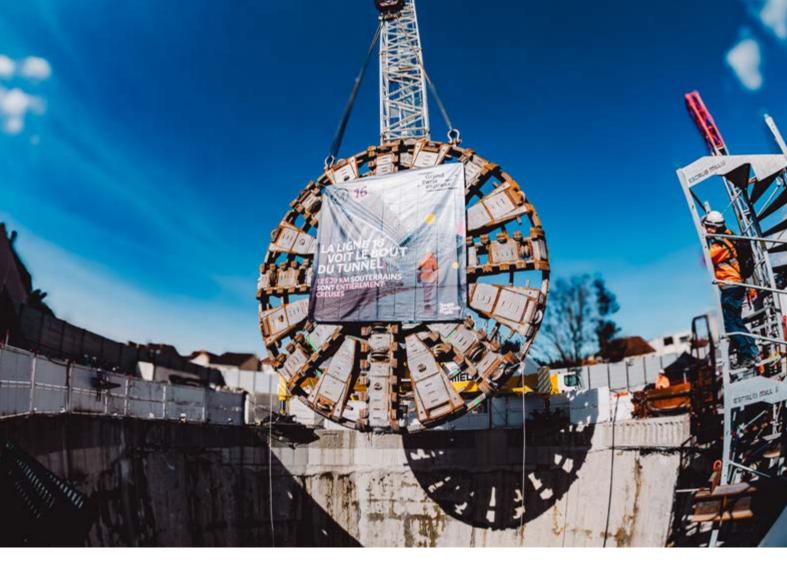
proportion of precast segments made of fibre-reinforced concrete

SUSTAINABILITY KPIs

240,000 passengers/day expected to pass through the four new stations

**19 min vs. 46 min (current)** reduction in travel time between La Defense and Saint-Denis Pleyel

800,000 residents involved



### FRANCE

# GRAND PARIS EXPRESS METRO LINE 16 LOT 2

Part of the biggest sustainable mobility project in Europe

The future Grand Paris Express Line 16 will serve several communes in the northern and eastern parts of the Paris metropolitan area. Lot 2 involves the excavation of 11.1 km of tunnels, already completed, and the construction of 4 of the 10 stations planned along the entire line (Aulnay-sous-Bois, Sevran-Beaudottes, Sevran-Livry and Clichy-Montfermeil), in addition to 11 connected works. The whole line will serve the Seine-Saint-Denis department, for a total of 16 communes, with an estimated capacity of 200,000 passengers a day, helping to alleviate road traffic and preventing the emission of 52,000 tonnes of  $CO_2$  each year.

**TECHNICAL/PRODUCTION KPIs** 

810,000 m<sup>3</sup> TBM excavation

2,481 m<sup>3</sup> traditional excavations

~49,000 kg steel ribs used to line the tunnels

SUSTAINABILITY KPIs

200,000 passengers/day\*

-154,000 cars off the road every day\*

-52,000 t CO<sub>2</sub> emissions/year\*

\* Estimated data pertaining to Line 16 as a whole





### CANADA

# HURONTARIO LIGHT RAIL TRANSIT

### Sustainable urban mobility for growing cities

The HuLRT is an 18 km-long light rail transit system with 19 stops that runs along Hurontario Street from Port Credit in Mississauga to the Brampton Gateway Terminal. The HuLRT will operate in a separated guideway with traffic priority throughout most of the corridor, accommodating a double cycle path and becoming a people-oriented corridor connecting communities and accommodating growth anticipated over the next 30 years. The project also comprises upgrade and commissioning of third party infrastructure, road resurfacing and widening, construction, modifications and rehabilitations of bridges, traffic management and detours, road signing and lighting, parking areas and one Building for the Operations and Maintenance for the LRT vehicles. **TECHNICAL/PRODUCTION KPIs** 

49,866 m<sup>3</sup> concrete

253,285 t asphalt

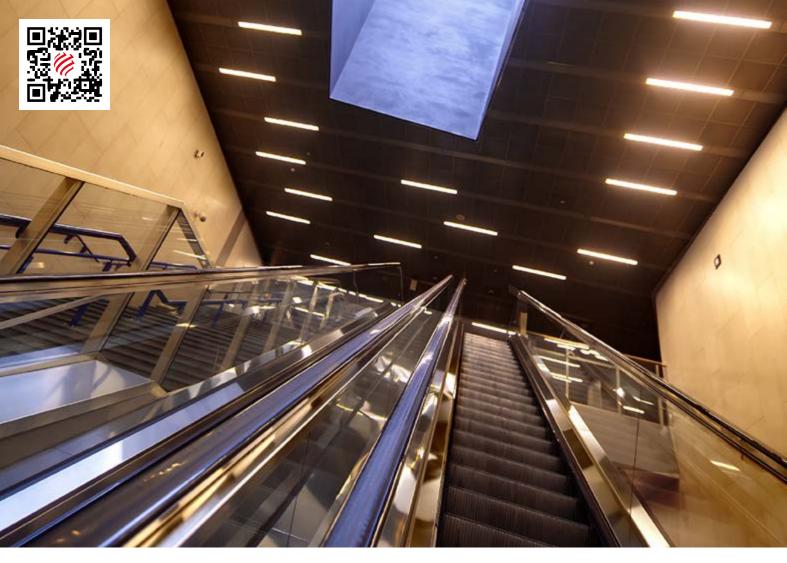
**531,143 m<sup>3</sup>** excavations

SUSTAINABILITY KPIs

14,000,000 passengers per year

-8,573 tons/year greenhouse gases (CO, equivalent)

-30,000 trips by car per day



# MILAN METRO – LINE 4

With its launch, the city's entire metro network has now reached 118 km in length, making it the sixth largest in Europe

With the full operation of Milan's M4 in October 2024, the metro network now spans the city from west to east, running through the historic center and reaching Linate Airport. The line extends between its two terminals, Linate and San Cristoforo, covering 15 km with 21 stations, completed in just a 30-minute journey. It has a capacity to transport 24,000 people per hour in each direction. The construction of the M4 was a complex engineering project, adopting cuttingedge techniques. Six Tunnel Boring Machines (TBMs) were used to excavate the tunnels at an average depth of 20 meters below street level, reaching a maximum depth of 30 meters. Soil stabilization was achieved using the jet grouting method, which involves injecting cement mixtures to solidify the ground and prevent water infiltration. Another advanced technique used was artificial ground freezing with liquid nitrogen, preventing subsidence during excavation. **TECHNICAL/PRODUCTION KPIs** 

+240,000 m<sup>2</sup> diaphragms (station perimeter walls)

+170,000 m<sup>3</sup> precast segments to line the tunnels

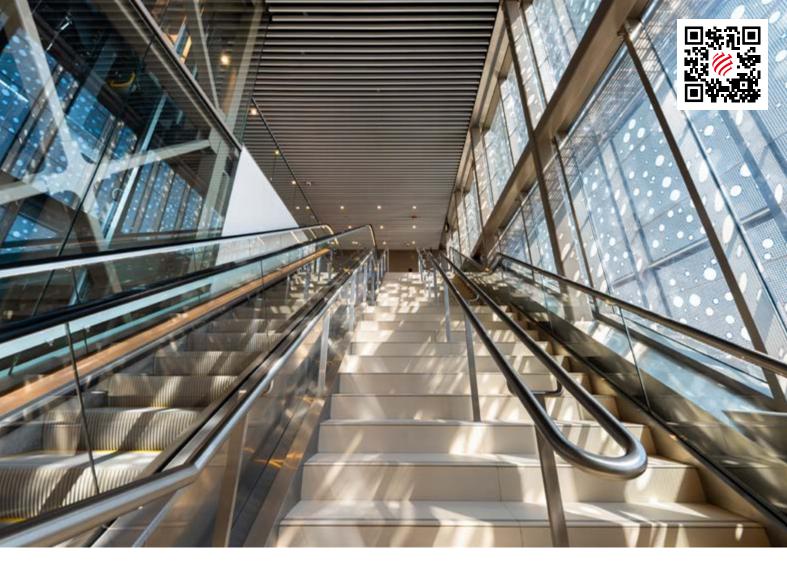
~1,000,000 m<sup>3</sup> cast-in-place concrete

SUSTAINABILITY KPIs

86,000,000 passengers expected annually

-180,000 vehicles removed from roads daily

-75,000 tons/year estimated CO, emissions reduction



### SAUDI ARABIA

# RIYADH METRO - ORANGE LINE (LINE 3)

The longest line in the new metro network of Saudi Arabia's capital

At approximately 41 km, Riyadh Metro's Orange Line (Line 3) is the longest line in the city's entire metro network. Spanning east to west, it offers a crucial solution to Riyadh's growing demand for sustainable mobility. Constructing the line posed a significant technical challenge. The route crosses a densely populated area, requiring the use of two Tunnel Boring Machines (TBMs) to excavate the tunnels. Equipped with automated control systems, energy-efficient trains, and  $CO_2$  emission-reduction solutions, the Orange Line (Line 3) provides a safe, fast, and comfortable mode of transportation for millions of people. With its 22 stations, the new line will serve as a critical backbone of Riyadh's entire transport system. Among these, Downtown Station is a standout example of modern architecture and sustainability, holding LEED certification.

#### **TECHNICAL/PRODUCTION KPIs**

~41 km total line length

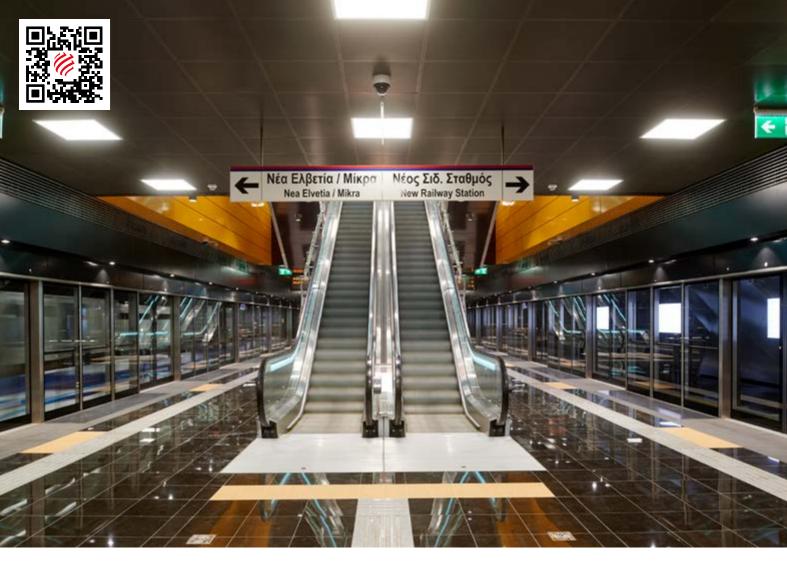
**11 km** length of the tunnel section

22 stations

SUSTAINABILITY KPIs

**3,6 millions** passengers per day\*

\* Metro System Capacity



GREECE

# THESSALONIKI METRO

The city's first metro line and its largest archaeological excavation

The new driverless metro in Thessaloniki spans 9.6 km, running underground along major roads and in central areas of the city, ensuring a transport capacity of 18,000 passengers per hour in each direction. The route includes 13 stations, a 50,000 m<sup>2</sup> depot for rolling stock, and a maintenance workshop for mechanical and electrical equipment repair. The line is fully automated with a CBTC signaling system. During construction, significant archaeological finds were discovered, including marble slabs from the Decumanus Maximus, the ancient road that crossed the city. The archaeological excavation covered an area of 30,000 m<sup>2</sup>, the largest in the city. To preserve and highlight the artifacts, the tunnels were dug about 20 meters deep, and some stations were redesigned, such as the Venizelos station, which underwent design changes, and the Demokratias station, which was moved 10 meters. The tunnel excavations were carried out using two TBMs for a total of 14.6 km.

**TECHNICAL/PRODUCTION KPIs** 

9.6 km metro line length

13 stations

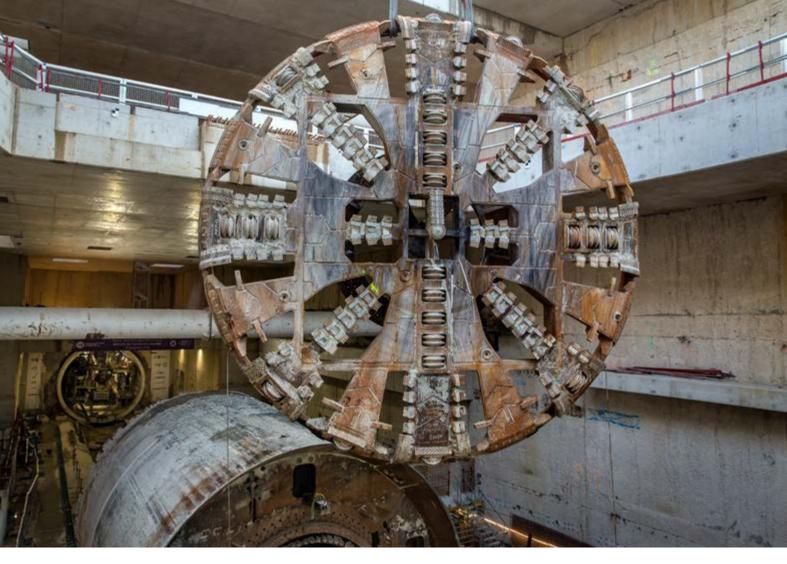
SUSTAINABILITY KPIs

**315,000** passengers expected daily

-212 tons/day CO<sub>2</sub> emissions reduction

-60,000 vehicles removed from the roads daily





#### FRANCE

# EXTENSION OF LINE 14 SOUTH TOWARDS ORLY AIRPORT (LOT 4)

The metro line connecting central Paris to Orly Airport

The extension of Line 14 South towards Orly Airport officially opened to passengers in June 2024. For this line, Webuild completed works in 2023 on Lot 4: a section of the line in tunnels spanning around 4 km that connects Pont de Rungis station with the airport. The tunnels were excavated using a TBM (Tunnel Boring Machine). Line 14 South links Saint-Denis station, in the north of Paris, with Orly Airport and is part of the Grand Paris Express, the new Métro network serving Île-de-France that is one of the most important and innovative sustainable mobility initiatives in Europe today. With eight new stations and passing through 11 communes along its 28 km length, estimates suggest that the new line will greatly benefit the 260,000 residents to the south of Paris, in the Val-de-Marne and Essonne departments, carrying up to a million passengers a day by mid-2025.

**TECHNICAL/PRODUCTION KPIs** 

10,940 m<sup>3</sup> structural concrete used

2,207 tons concrete reinforcing steel used

4,026 m length of excavated tunnels

SUSTAINABILITY KPIs

**300,000** passengers/day

-230,000 car journeys/day

-15,000 tons CO, emissions per year



#### AUSTRALIA

# FORRESTFIELD-AIRPORT LINK (AIRPORT LINE)

A new infratructure to take 15,000 vehicles off the roads every day, reducing up to 2,000 tonnes of  $\rm{CO}_2$  emissions a year.

The project comprised the design, construction and maintenance for 10 years of the Forrestfield Airport Link, to connect the eastern suburbs of Perth with the existing suburban rail network as well as the airport. Completed in October 2022, the line generates 20,000 passenger trips on the network every day. It will also reduce road traffic and travelling times: travel times to reach the centre is reduced by over 50%, going from 45 to 20 minutes. Each tunnel is 8 km long for which two TBMs have been specifically designed. In 2019, Webuild received the Concrete Institute of Australia (WA) Award, in the "Excellence in the Technology and Innovation" category, for having designed and produced concrete prefabricated segments used for the Forrestfield Airport Link tunnels. In 2023, the Airport Central Station received the Award for Public Architecture (Chapter Western Australia) that recognises excellence in design and architecture and is promoted by the Australian Institute of Architects.

#### **TECHNICAL/PRODUCTION KPIs**

#### 7 m

excavation diameter

### 3

stations

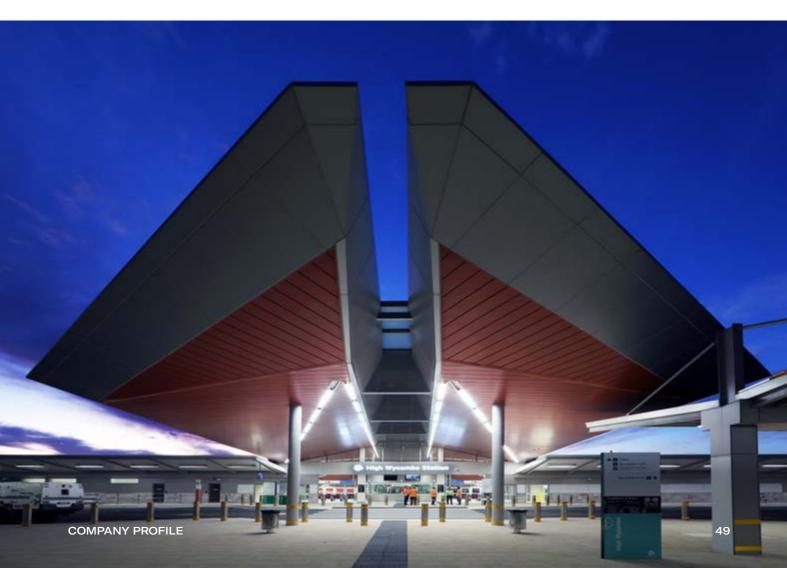
SUSTAINABILITY KPIs

# -2,000 tons

CO<sub>2</sub> emissions per year

### 20,000

passengers per day







### QATAR

# DOHA METRO, RED LINE NORTH UNDERGROUND

The first underground metro system of Qatar

The Red Line North Underground forms part of the overall project to build the new infrastructural mobility system promoted by Qatar. The overall route develops entirely in an urban environment and crosses the Financial District of Doha West Bay featuring a total length of 13 km through 7 new stations. The project involved the excavation of two parallel tunnels, one in each direction, approximately 11.6 km long with an internal diameter of 6.17 m lined with reinforced fiber prefabricated segments. To build it, 4 EPB (Earth Pressure Balance Type) TBMs were used to excavate the tunnels. The project won the Qatar Sustainability Award in 2017 and in 2018 it won the RoSPA (Royal Society for the Prevention of Accidents) Silver Award for its strong health and safety performance, qualifying as one of the projects with the best practices in its sector.

**TECHNICAL/PRODUCTION KPIs** 

2,700,000 m<sup>3</sup> excavations

530,000 m<sup>3</sup> recovered excavation materials

725,000 m<sup>3</sup> conventional concrete

SUSTAINABILITY KPIs

-215,000 trips by car per day

-45,000 tons CO<sub>2</sub> emissions per year



#### ROMANIA

# **BUCHAREST METRO LINE 5 LOT 1**

A new leap forward for the city's sustainable mobility

The plans for Lot 1 of Line 5 of the Bucharest Metro involved the design and construction of two singletrack tunnels – each 4.2 km long – as well as nine stations, over the section that runs entirely underground between Râul Doamnei and Eroilor stations (PS Opera). In total, the works required the excavation of just over 8 km of tunnels, using EPB TBMs (Earth Pressure Balance Tunnel Boring Machines), as they have characteristics that are particularly well suited to excavating the types of subsoils that sit beneath urbanised areas. Eroilor station provides a direct link with the rest of the metro network by means of a pedestrian underpass leading to the existing Lines 1 and 3. The other stations were placed along main thoroughfares served by street-level public transportation, in an effort to improve intermodal travel by facilitating interchanges between underground and overground means of transport.

**TECHNICAL/PRODUCTION KPIs** 

**383,000 m<sup>3</sup>** concrete

**34,500 tons** steel

385,000 m<sup>3</sup> underground excavations

SUSTAINABILITY KPIs

**-5,400 kg** C0, emissions/day

**-293 kg** NO<sub>x</sub> emissions/day

-541 kg emissions of volatile organic compounds/day



#### DENMARK

# COPENHAGEN CITYRINGEN METRO

The underground loop line leading the city towards its goal of carbon neutrality

Cityringen, which was completed in 2019, is a modern, sustainable infrastructure that circumnavigates Copenhagen. Its construction involved the excavation of 31 km of tunnels, connecting a total of 17 elegant stations located beneath the city's historical centre. The excavations were carried out with TBMs (Tunnel Boring Machines): enormous mechanical 'moles' which negotiated their way through the ancient wooden foundations of the city's buildings, all without putting them at risk or disrupting the day-to-day life of citizens with the noise of diggers, the traffic of heavy vehicles, or the encumbrance of loading and unloading cargo. An impressive feat of engineering that allowed the peace and quiet of Copenhagen to remain undisturbed. Cityringen was designed with an ambitious goal namely to support the city in its goal to become the first carbonneutral capital in the world. With 85% of citizens now served by a station located within 600 m of their homes, car use has dropped dramatically, with the effect of significantly reducing emissions.

**TECHNICAL/PRODUCTION KPIs** 

428,000 m<sup>3</sup> concrete

115,000 tons steel

862,000 m<sup>3</sup> underground excavations

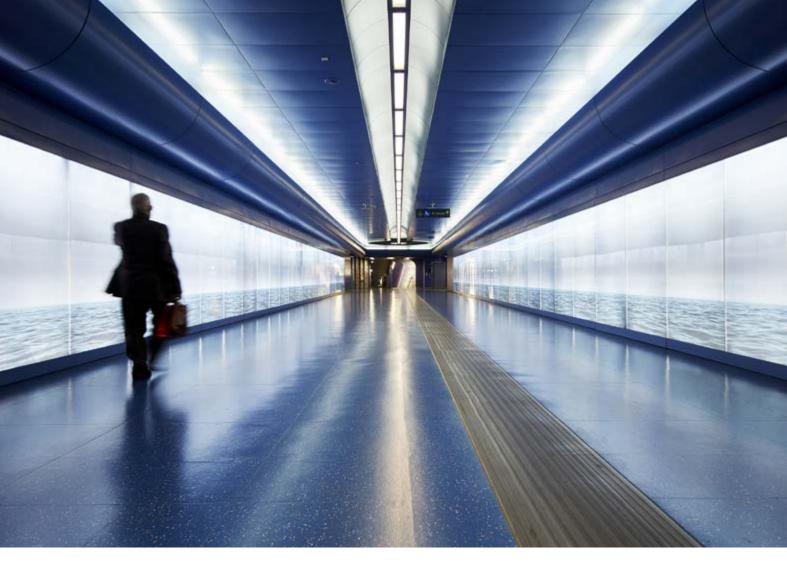
SUSTAINABILITY KPIs

240,000 passengers/day

-96,000 car journeys/day

-50,000 tons CO, emissions per year





# NAPLES METRO LINE 1

A gem of engineering that boasts the most magnificent Art Stations in Naples

Line 1 of the Naples Metro, built in multiple stages as part of the plan to improve the city's underground transportation network, is nothing short of a gem of engineering and art. The works form part of the overarching 'Art Stations' programme which, drawing upon the expertise of internationally renowned artists and architects, aims to transform places traditionally considered merely transitional into fully fledged art galleries. Webuild built 10 of the 20 stations on Line 1 currently in operation, including some of the most iconic Art Stations: Toledo, Università, Dante, Materdei, and Museo. Toledo station – designed by Spanish architect Óscar Tusquets Blanca and officially opened in 2012 – has garnered numerous awards, for its beauty and innovative use of underground space, including the Emirates Glass LEAF Award in 2013 and the ITA International Tunnelling Award in 2015. In 2014, it was also named the most beautiful station in Europe by the Telegraph and ranked among the world's most beautiful stations according to a list compiled by the American broadcaster CNN. On Line 1, Webuild is currently constructing Capodichino station. **TECHNICAL/PRODUCTION KPIs** 

50 m depth of Toledo Station

**43,000 m<sup>3</sup>** surface area of Toledo Station

20.7 km metro line currently in operation\*

#### SUSTAINABILITY KPIs

Emirates Glass LEAF Award 2013 for design

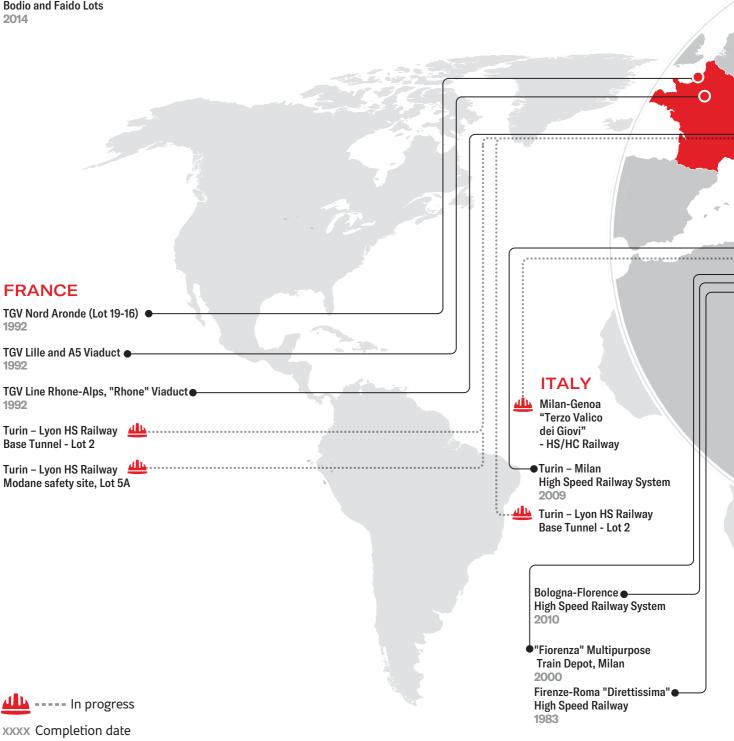
ITA International Tunnelling Award 2015 for the innovative use of underground space

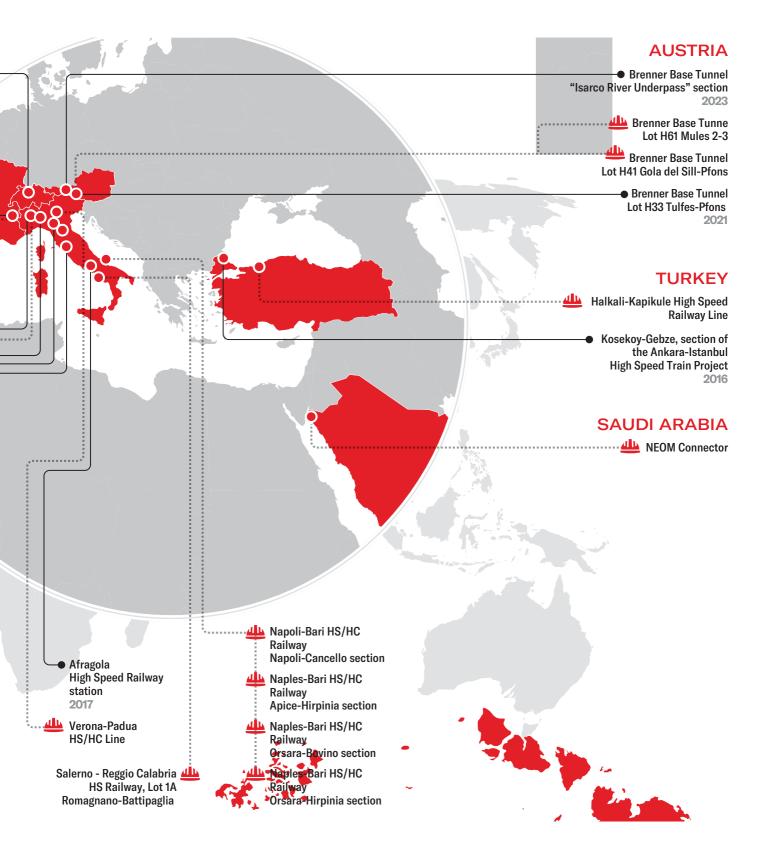
\* Data updated as of April 2025

# **BUSINESS** MAIN HIGH SPEED RAILWAYS

### **SWITZERLAND**

San Gotthard Tunnel, Bodio and Faido Lots









# TERZO VALICO DEI GIOVI -GENOA JUNCTION ONE PROJECT

The Genoa-Milan high-speed line brings Italy to the centre of Europe, improving rail services for passengers and freight

Terzo Valico dei Giovi and Genoa Junction are the two essential parts of the One Project for the construction of the new high-speed, high-capacity railway line from Genoa to Milan. Once completed, it will be the longest underground railway line in Italy. The project is the first part of the European TEN-T Rhine-Alps Corridor, and will strengthen connections between the Ligurian port system, the ports of the northern Tyrrhenian Sea, northern Italy and the rest of Europe. The route is 53 km long, 70% of which is in tunnels. Considering the single and double-tube tunnels and secondary interconnections, the project involves the excavation of 90 km of tunnels. The Terzo Valico connects to the Genoa junction at the Fegino junction. It then enters, in succession, the Campasso Tunnel (700 m, already completed), the Valico Tunnel (27 km), the Serravalle Tunnel (7 km) and the Pozzolo Tunnel (2 km). In 2024, the first 8.5 km of the line were opened to traffic between Rivalta Scrivia and Pozzolo/Tortona.

TECHNICAL/PRODUCTION KPIs

15 millions m<sup>3</sup> excavated material

**3.5 millions m<sup>3</sup>** concrete (estimate for the entire project)

### 136,000 tons

reinforcing steel for reinforced concrete (estimate for the entire project)

#### SUSTAINABILITY KPIs

-33% travel time between Genoa and Milan

\_\_\_\_\_

### +3.5 millions

passengers served each year (estimate)

#### -55%

CO<sub>2</sub> emissions vs. road transport



#### ITALY/AUSTRIA

# **BRENNER BASE TUNNEL (4 LOTS)**

A strategic infrastructure project for increasingly integrated and sustainable mobility in Europe

The Brenner Base Tunnel is the central element of the Scandinavian-Mediterranean European TEN-T Corridor. It is also its most important project as it will overcome the natural barrier of the Alps. The project is part of the Munich-Verona axis and extends for 64 km, including the Innsbruck junction. Once completed, it will be the longest underground railway link in the world and passenger trains will be able to travel at a maximum speed of 250 km/h on the new line, reducing the journey time between Fortezza and Innsbruck from the current 80 minutes to just 25 minutes. Webuild is involved in two lots of this project, Mules 2-3 on the Italian side and Sill Gorge-Pfons on the Austrian side and has already completed the Tulfes-Pfons lots in Austria and the Isarco underpass in Italy. Advanced soil consolidation techniques, such as jet grouting and freezing, were used in the construction phase. TECHNICAL/PRODUCTION KPIs ISARCO UNDERPASS LOT

#### 64 km

tunnel length to connect Innsbruck to Fortezza

### >50 km

length of Webuild lots (completed or in progress)

#### SUSTAINABILITY KPIs

#### -69%

reduction in travel time between Fortezza and Innsbruck for passengers

#### 500

people employed\*

### +1,100

direct suppliers involved\*\*

- \* Data updated in January 2025
- \*\* Data from the start of works, to December 2024





# VERONA-PADUA HS/HC LINE

A crucial project for Italy's integration into the Mediterranean Corridor of the TEN-T network

The Verona-Padua HS/HC line – which will span a total of 76.5 km as it passes through the provinces of Verona, Vicenza and Padua – is a strategic piece of infrastructure for Italy, in that it forms part of the Mediterranean Corridor of the TEN-T Trans-European Transport Network (Europe's core network). It will quadruple the existing line, improving the quality of the Italian railway service and its integration with the European railway network. The line is divided into 3 functional lots. The first of these, the Verona-Vicenza junction section, is currently under construction and runs for 44.2 km through 13 municipalities (8 in the province of Verona, 5 in the province of Vicenza). The second functional lot, which is also under construction, pertains to the Vicenza Crossing, which will stretch for approximately 6.2 km from the town of Altavilla Vicentina to Vicenza station (an engineering challenge due to the crossing of Vicenza's urban centre). The third functional lot, which is currently in the design stage, pertains to the Vicenza-Padua stretch, which will cover more than 26 km.

**TECHNICAL/PRODUCTION KPIs** 

42 km railway trenches and embankments\*

2.4 km man-made tunnels\*

10.2 km viaducts\*

#### SUSTAINABILITY KPIs

### 4,000

jobs expected for the entire project (direct and indirect)

3 millions

passengers expected per year

# -300,000 tons/year

 $\rm CO_2 \, emissions$ 

Cumulative data for the First Functional Lot (Verona-Vicenza junction) and the Second Functional Lot (Vicenza Crossing)



# NAPLES-BARI HS/HC RAILWAY LINE APICE-HIRPINIA LOT

A strategic project for southern Italy, forming part of the TEN-T network

Webuild is working on four lots of the Naples-Bari high-speed/high-capacity railway line (Orsara-Bovino, Hirpinia-Orsara, Apice-Hirpinia, Naples-Cancello), where it is building over 74 km of new railway line out of a total of 145 km, equal to approximately half of the entire project. The Apice-Hirpinia lot involves building 18.7 km of line, with three natural twin-track tunnels (Grottaminarda, Melito, Rocchetta) and four viaducts, in an area between the provinces of Avellino and Benevento that is highly complex in terms of structure and geomorphology. The project also includes the construction of the Hirpinia station. Two of the eight latest-generation green TBMs that Webuild has allocated to the entire project will be used to excavate the tunnels. The TBM Aurora, which has already excavated the Grottaminarda Tunnel (1,965 m long), will also excavate the Melito Tunnel (4,413 m), while the TBM Futura is excavating the Rocchetta Tunnel (6,455 m). The viaducts will span the Ufita River and will be between 705 and 230 m long.

**TECHNICAL/PRODUCTION KPIs** 

**18.7 km** length of the section

**13 km** length of the tunnel section

2 TBMs

SUSTAINABILITY KPIs

2h vs. 4h (current)

reduction in travel time between Naples and Bari\*

2.3 millions/year passengers expected\*

passengers expected

### -3 millions tons

of  $\text{CO}_2$  reduction over the period 2023-2047\*





# NAPLES-BARI HS/HC RAILWAY LINE ORSARA-BOVINO LOT

A strategic project for southern Italy, forming part of the TEN-T network

Webuild is currently working on 4 lots of the Naples-Bari HS/HC railway line – namely Orsara-Bovino, Hirpinia- Orsara, Apice-Hirpinia and Naples-Cancello – which comprise over 74 km of its total 145 km length, approximately half of the entire project. The Orsara-Bovino lot involves doubling the final section of the line before reconnecting it to the Bovino-Foggia-Bari line, which has been in operation since 2017. The section extends for approximately 12 km, mostly in the Apulian territory, with about 10 km referring to the Orsara tunnel. This tunnel has a doublebore, single-track configuration from the entrance on the Bari side. Due to the requirements of the route, the tunnel has a single-bore, double-track configuration in the stretch preceding the exit on the Naples side, with the transition between the two configurations being achieved by means of a junction chamber. For the excavation of the tunnel's two tubes, the use of two latestgeneration green TBMs is planned. **TECHNICAL/PRODUCTION KPIs** 

~12 km length of the section

~10 km length of the tunnel section

2 TBMs

SUSTAINABILITY KPIs

### 2h vs. 4h (current)

reduction in travel time between Naples and Bari\*

### 2.3 millions/year

passengers expected\*

#### -3 millions tons

of  $\text{CO}_2$  reduction over the period 2023-2047\*



# NAPLES-BARI HS/HC RAILWAY LINE HIRPINIA-ORSARA LOT

A strategic project for southern Italy, forming part of the TEN-T network

Webuild is working on four lots of the Naples-Bari high-speed/high-capacity railway line (Orsara-Bovino, Hirpinia-Orsara, Apice-Hirpinia, Naples-Cancello), where it is building over 74 km of new railway line out of a total of 145 km, equal to about half of the entire project. The Hirpinia-Orsara lot is the second functional lot of the Apice-Orsara section (the first lot and the Apice-Hirpinia section) and extends for 28 km between Campania and Puglia. The section covers the central part of the Naples-Bari line, and almost the entire route is in tunnels, with the Hirpinia Tunnel extending for 27 km and competing for the title of longest tunnel in Italy with the Valico Tunnel in Genoa (also built by Webuild). The Hirpinia Tunnel is a highly complex project, not only because of its length, but also because it crosses the Southern Apennines. Four EPB (Earth Pressure Balance) TBMs will be used to excavate the tunnel, working simultaneously. The project also includes the construction of a 314 m long viaduct.

**TECHNICAL/PRODUCTION KPIs** 

28 km length of the section

27 km length of the tunnel section

**4** TBMs

SUSTAINABILITY KPIs

### 2h vs. 4h (current)

reduction in travel time between Naples and  $\ensuremath{\mathsf{Bari}}^*$ 

2.3 millions/year

passengers expected\*

### -3 millions tons

of  $\rm CO_2$  reduction over the period 2023-2047\*





# NAPLES-BARI HS/HC RAILWAY LINE NAPLES-CANCELLO LOT

A strategic project for southern Italy, where excavation is carried out using hyperbaric technology

Webuild is working on four lots of the Naples-Bari high-speed/high-capacity railway line (Orsara-Bovino, Hirpinia-Orsara, Apice-Hirpinia, Naples-Cancello), where it is building over 74 km of new railway line out of a total of 145 km, equal to about half of the entire project. The Naples-Cancello section is the first section of the Naples-Bari line and is strategic for the reorganisation of metropolitan, regional and long-distance connections throughout the area, as it will allow the high-speed/high-capacity line to serve the Naples-Afragola high-speed station (also built by the Group). The lot, approximately 15.6 km long, runs entirely along a variant of the historic line and crosses a heavily urbanised area. The route includes four viaducts, three of which are steel arch bridges, over 3 km of artificial tunnel, two stations and one stop. A significant innovation for this lot is the construction of a section of the Casalnuovo tunnel, which runs partly below the water table, using the hyperbaric excavation technique, the first example in Italy in the construction of tunnels that interact with the aquifer.

**TECHNICAL/PRODUCTION KPIs** 

15.6 km length of the section

**3.3 km** man-made tunnel

**0.65 km** excavation length in hyperbaric mode

SUSTAINABILITY KPIs

2h vs. 4h (current) reduction in travel time between Naples and Bari\*

2.3 millions/year

passengers expected\*

### -3 millions tons

of  $\text{CO}_2$  reduction over the period 2023-2047\*



# HS SALERNO-REGGIO CALABRIA RAILWAY LINE 1A BATTIPAGLIA-ROMAGNANO LOT

A strategic route for passenger and freight transport along the north-south axis of the peninsula

The Salerno-Reggio Calabria high-speed railway is a strategic project for passenger and freight transport along the north-south axis of Italy. Once completed, it will provide high-speed rail access to areas that are currently excluded, such as Cilento and Vallo di Diano, the Ionian coast, and the upper and lower Cosenza areas. Lot 1A is the first phase of this new infrastructure and involves the construction of 35 km of new railway line on which trains will travel at speeds of up to 300 km/h. The route runs through the province of Salerno, in the municipalities of Battipaglia, Eboli, Campagna, Contursi Terme, Sicignano degli Alburni and Buccino. A junction is also planned in Romagnano to connect to the future high-speed line of the existing Potenza-Metaponto line. The route runs underground for 18 km and includes 8 artificial tunnels covering 4 km and 12 natural tunnels, 8 of which will be excavated using mechanised methods with 4 TBMs, 3 of which with a cutting head over 13 metres in diameter, the largest used in Europe by Webuild. Finally, 19 viaducts are planned for a total length of approximately 6 km.

#### **TECHNICAL/PRODUCTION KPIs**

### 35 km

length of the section

### 18 km

underground section

#### 4

TBMs

SUSTAINABILITY KPIs

### 3h 40min vs. 5h (current)

reduction in travel time between Salerno and Reggio Calabria





# NAPLES-AFRAGOLA HIGH SPEED RAILWAY STATION

# The futuristic, meandering high-speed rail station designed by starchitect Zaha Hadid

The station, which opened to the public in 2017, is a modern transport hub that complements the connections offered at Napoli Centrale station. It takes the form of a long, slinky bridge that passes over the tracks, with a central body 400 m long by 44 m wide. Including the external courtyards, it occupies a total area of 60,000 m<sup>2</sup>. Designed by starchitect Zaha Hadid, the station is characterised by curved forms that influenced the materials selected (steel, glass and Corian) and considerably increased the complexity of its construction. As of its completion, the project boasted the largest surface area of Corian panels ever used in a single construction in Italy: 20,000 m<sup>2</sup>. Energy saving was the primary consideration in the design and construction of the project. For example, the station is equipped with a solar thermal system providing around 200 kW of power for winter heating, along with multi-purpose refrigeration units: solutions aimed at reducing its environmental impact and generating benefits in terms of  $CO_2$  emissions.

#### **TECHNICAL/PRODUCTION KPIs**

### 25 months

turnaround time

### 5,000 tons

steel used to construct the decks and curved roof structures

### 5,000 m<sup>2</sup>

glass used for the transparent roof

#### SUSTAINABILITY KPIs

### 55 min

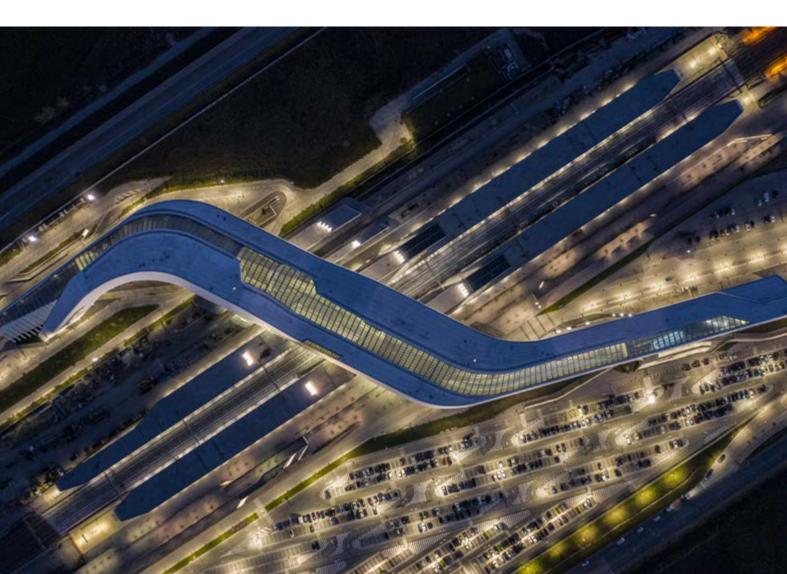
Naples-Afragola – Rome Termini journey time

# 3,000,000

users served in the provinces to the north of Naples and Caserta

### 25 tons/year

CO<sub>2</sub> emissions avoided





# TURIN-MILAN HS/HC RAILWAY LINE TURIN-NOVARA SECTION AND NOVARA-MILAN SECTION

A fast connection to match growing traffic and mobility requirements

The Turin-Milan section is 125 km long. The planning and construction met the need to make the project fit a strongly anthropized environment, characterized by the presence of some protected natural areas. The new railway line, connected to the existing line through three interconnections, runs along the infrastructural corridor beside the existing highway. The twin rail line includes bridges and viaducts for a total length of 22 km, 95.3 km of embankments, 4.3 km of trenches and 3.4 km of man-made tunnels. Works included motorway diversions and adjustments to the existing road system, worksite tracks; over 100 bypasses and overpasses for the railway, roads and motorway interchanges; approximately 40 kilometres of service tracks for civil protection; more than 200,000 m<sup>2</sup> of anti-noise barriers.

**TECHNICAL/PRODUCTION KPIs** 

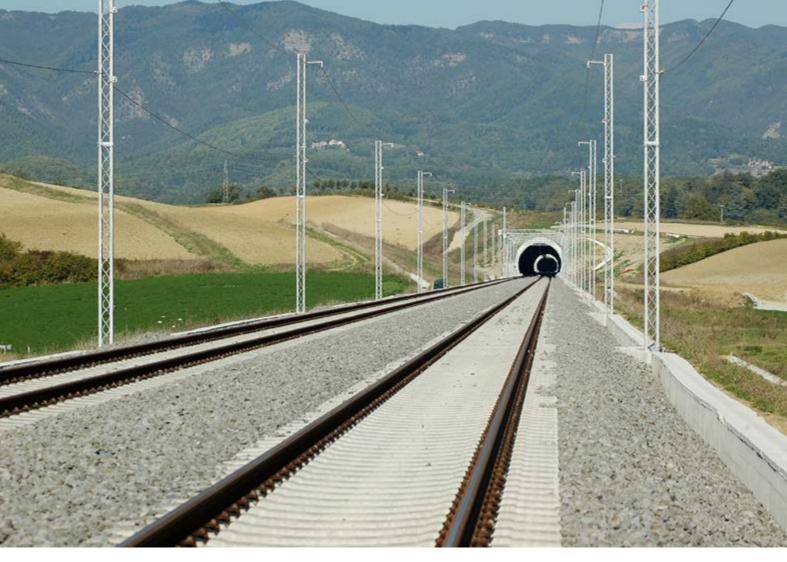
**3,239,000 m<sup>3</sup>** concrete used

289,000 tons steel used

14,866,000 m<sup>3</sup> open excavations

#### SUSTAINABILITY KPIs

-47% time of travel



### BOLOGNA-FLORENCE HS/HC RAILWAY LINE

From Bologna to Florence in just 35 minutes

Owing to the dimensions of the work, the engineering-related challenges, the sheer amount of manpower involved, the importance of the financial commitment, and the orographical and hydrogeological features of the Tuscan-Emilian Apennines, the Bologna-Florence High Speed Railway line represented a major engineering challenge for Italy and was at the time of completion one of the most important projects in Europe. To cross the Apennine range, the 79-km route required the construction of 72 km of natural tunnels and 5.2 km of open-air works, including 4 km of embankments and 6 viaducts for an overall length of 1.2 km. TECHNICAL/PRODUCTION KPIs

**3,640,000 m<sup>3</sup>** concrete used

**30,000 tons** steel used

9,920,000 m<sup>3</sup> underground excavations

#### SUSTAINABILITY KPIs

-49% time of travel

### BUSINESS MAIN RAILWAYS

**CANADA** 

1988

1983

Canadian Pacific

Canadian Pacific,

Limited, CP Railroad

Railroad-Roger Pass Tunnel

### FRANCE Simplon Railway Line • 1910

Marsiglia-Ventimiglia — Railway Line 1991

### NORWAY

Nykirke-Barkaker 😃 Rail Line

### SWITZERLAND

Rorscharch- San Gallo Railway Line and Galgetobel Bridge 1981

### **ALGERIA**

El Gourzi-El Khroub • and Ramdane-Djamel Constantine Railway Line 1985

### CAMEROON

Trans-Cameroon Railway 

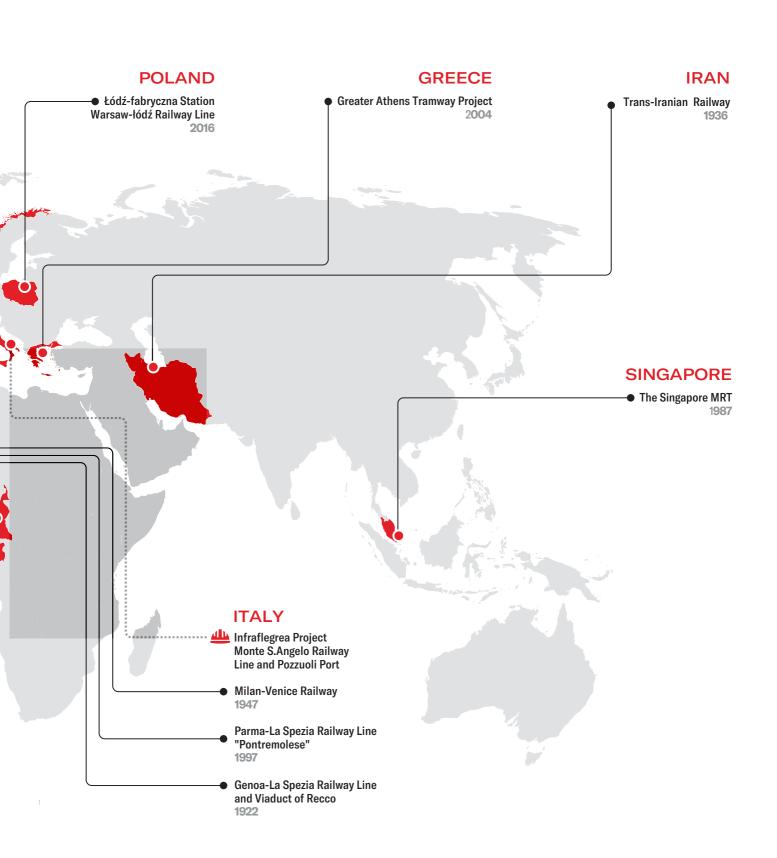
1987

### GABON

Trans-Gabon Railway ● 1986









### MESSINA-CATANIA HC RAILWAY LINE LOT 1 - FIUMEFREDDO-TAORMINA/ LETOJANNI

A crucial project for the development of sustainable mobility in southern Italy

Webuild is building seven sections of the Palermo-Catania-Messina highcapacity line. Lot 1 Fiumefreddo-Taormina/Letojanni is part of the Messina-Catania route and runs along the eastern side of Sicily, passing right by Mount Etna and the Strait of Messina. The project involves doubling 15.4 km of the line, including about 11 km of tunnels (partly excavated with TBMs), Taormina station (entirely underground), two stops and new viaducts. One of these viaducts, which passes over the Alcantara Valley, will be 928 m long with an arch span of 120 m, making it one of the longest arch bridges in Italy. The two Taormina tunnels being excavated will form one of the main junctions on the route. Excavation work for the odd-numbered track has already begun with the 'Lucia' TBM, starting from the entrance on the Catania side. Once completed, the doubled track will help to reduce travel times between Messina and Catania from 75 to 45 minutes. **TECHNICAL/PRODUCTION KPIs** 

**15.4 km** total length of the section

~11 km tunnel section

### 9.16 m

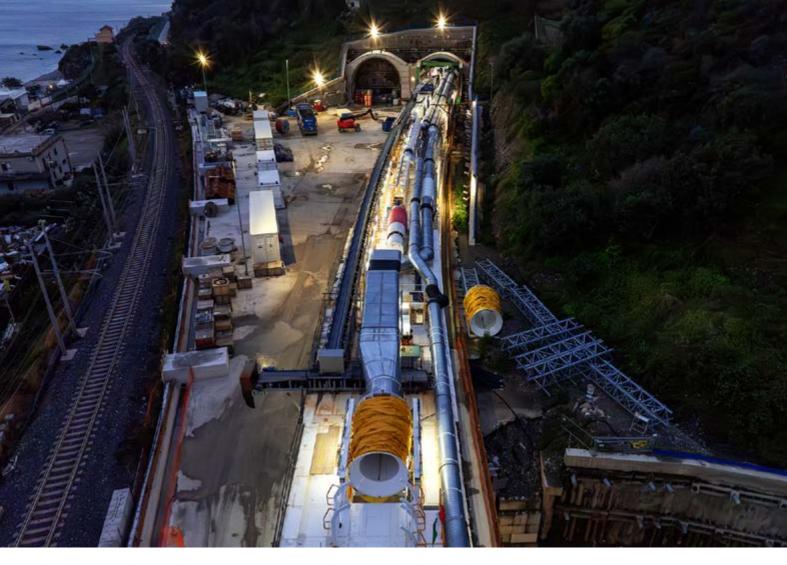
excavation diameter of Taormina tunnels

#### SUSTAINABILITY KPIs

### 45 min vs. 75 min (current)

reduction in travel time between Messina and Catania\*

\* Data pertaining to the entire Messina-Catania line



### MESSINA-CATANIA HC RAILWAY LINE, LOT 2 - TAORMINA-GIAMPILIERI

A crucial project for the development of sustainable mobility in southern Italy

Webuild is building seven sections of the Palermo-Catania-Messina highcapacity line. Lot 2 Taormina-Giampilieri is part of the Messina-Catania route and involves the construction of around 28.3 km of new double-track line. The route runs almost exclusively through tunnels and sits farther from the coast than the existing line. The project includes six double-bore tunnels (partly excavated with TBMs), two single-bore tunnels and seven viaducts. One of the main works to be done along the section is the Sciglio tunnel which also extends into the adjacent Taormina-Fiumefreddo lot and which, at over 9 km long, is the longest on the entire Giampilieri-Fiumefreddo section. Once completed, the project will help to reduce travel times between Messina and Catania from 75 to 45 minute.

#### **TECHNICAL/PRODUCTION KPIs**

28.3 km total length of the section

#### 6

double-bore tunnels

### 2

single-bore tunnels

#### SUSTAINABILITY KPIs

### 45 min vs. 75 min (current)

reduction in travel time between Messina and Catania\*

\* Data pertaining to the entire Messina-Catania line



### <u>ITALY</u>

### PALERMO-CATANIA HC RAILWAY LINE, LOT 1+2 - FIUMETORTO-LERCARA JUNCTION

A new high-capacity line designed to facilitate sustainable mobility in Sicily

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. The works planned for this route aim to improve the interconnection and interoperability of the line by bringing it up to European standards, as well as offering better links between the inland areas of the island and its three coastal cities and, additionally, higher capacity and speed for freight transportation. Lot 1+2 Fiumetorto-Lercara Junction is part of the Palermo-Catania line and involves a route that runs for 30 km, including 20 km of double-bore, single-track tunnels – which will be excavated with the use of four TBMs – and over 2 km of viaducts. The project includes 7 km of link roads and three stations, one of which (Valle del Torto) is being built from scratch, with the other two (Cerda and Lercara) being modernised. **TECHNICAL/PRODUCTION KPIs** 

**30 km** overall length of the section

20 km tunnels

3 stations

SUSTAINABILITY KPIs

### -33%

reduction in travel time between Palermo and Catania\*





### PALERMO-CATANIA HC RAILWAY LINE, LOT 4A CALTANISSETTA XIRBI-NUOVA ENNA

A new high-capacity line designed to facilitate sustainable mobility in Sicily

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. The works planned for this route aim to improve the interconnection and interoperability of the line by bringing it up to European standards, as well as offering better links between the inland areas of the island and its three coastal cities and, additionally, higher capacity and speed for freight transportation. Lot 4A Caltanissetta Xirbi-Nuova Enna is part of the Palermo-Catania route and involves the executive design and construction of 27 km of new high-capacity line. The work mostly follows a variant of the existing line and requires the excavation of 20 km of tunnels (including interconnections), predominantly with the use of TBMs, as well as the construction of 3 km of viaducts. There are also plans to build a new station (Caltanissetta Xirbi) and a passing loop (Villarosa). **TECHNICAL/PRODUCTION KPIs** 

27 km overall length of the section

20 km tunnels (including interconnections)

3 km viaducts

#### SUSTAINABILITY KPIs

#### -33%

reduction in travel time between Palermo and Catania\*



### PALERMO-CATANIA HC RAILWAY LINE, LOT 3 - LERCARA-CALTANISSETTA XIRBI

A new high-capacity line designed to facilitate sustainable mobility in Sicily

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. The works planned for this route aim to improve the interconnection and interoperability of the line by bringing it up to European standards, as well as offering better links between the inland areas of the island and its three coastal cities and, additionally, higher capacity and speed for freight transportation. Lot 3 Lercara-Caltanissetta Xirbi is part of the Palermo-Catania route and involves the construction of 47 km of new high-capacity line. The project requires the excavation of approximately 22 km of tunnels (including interconnections), which will be carried out using five TBMs (Tunnel Boring Machines). It also involves the construction of 11 km of viaducts and 32 km of link roads, as well as the modernisation of Vallelunga station and three passing loops (Marcatobianco, Marianopoli and San Cataldo). **TECHNICAL/PRODUCTION KPIs** 

47 km total length of the section

~22 km tunnels (including interconnections)

5 TBMs

#### SUSTAINABILITY KPIs

#### -33%

reduction in travel time between Palermo and Catania\*



### PALERMO-CATANIA HC RAILWAY LINE, LOT 6 - BICOCCA-CATENANUOVA

A new high-capacity line designed to facilitate sustainable mobility in Sicily

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. The works planned for this route aim to improve the interconnection and interoperability of the line by bringing it up to European standards, as well as offering better links between the inland areas of the island and its three coastal cities and, additionally, higher capacity and speed for freight transportation. Lot 6 Bicocca-Catenanuova is part of the Palermo-Catania route and involves doubling around 38 km of line, partly by running a new track alongside the historical line – which is currently a single track – and partly by converting the existing line into a double track. The route will help to improve the rail service between Enna and Catania and represents a crucial step in bolstering rail links with the ports of Catania, Augusta and Palermo, as well as Palermo and Catania airports. For this lot, the track laying has been completed. **TECHNICAL/PRODUCTION KPIs** 

~38 km total length of the section

**17** railway viaducts

160 km/h top speed made possible

#### SUSTAINABILITY KPIs

#### -33%

reduction in travel time between Palermo and Catania\*



### PALERMO-CATANIA HC RAILWAY LINE LOT 4B - NUOVA ENNA-DITTAINO

A new high-capacity line designed to facilitate sustainable mobility in Sicily

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. The works planned for this route aim to improve the interconnection and interoperability of the line by bringing it up to European standards, as well as offering better links between the inland areas of the island and its three coastal cities and, additionally, higher capacity and speed for freight transportation. Lot 4B Nuova Enna-Dittaino is part of the Palermo-Catania route and involves the executive design and construction of approximately 15 km of new high-capacity line – of which 8.5 km will run through tunnels and 2 km will run over viaducts – between the towns of Enna and Dittaino, in the province of Catania. The project includes the construction of Nuova Enna station and the modernisation of Dittaino station. **TECHNICAL/PRODUCTION KPIs** 

~15 km total length of the section

8.5 km tunnels

2 km viaducts

SUSTAINABILITY KPIs

#### -33%

reduction in travel time between Palermo and Catania\*



### NORWAY

### NYKIRKE-BARKAKER RAIL LINE

A new line to facilitate fast and sustainable transport along the east coast of Scandinavian country

The project consists in the upgrade of 13.6-kilometer section of a rail line between the towns of Nykirke and Barkaker, south of Oslo. A double-track line, including two bridges, three tunnels (two in drill&blast, one in cut&cover) and a station near the town of Skoppum. The project concerns a section of the so-called Vestfold Line, which is being modernized to reduce travel times and increase railway passenger capacity. Norway has as one of its priorities the establishment of a continuous double-track rail line between Oslo and Tønsberg and the upgrade of the section between Nykirke and Barkaker is critical to achieve this goal. Once it is upgraded, travel time between the two cities will be about an hour, with a frequency of up to four trains an hour in either direction. The project will also favour economic development beyond the Norwegian capital. **TECHNICAL/PRODUCTION KPIs** 

87,719 m<sup>3</sup> concrete

**39,314 tons** steel reinforcemennt

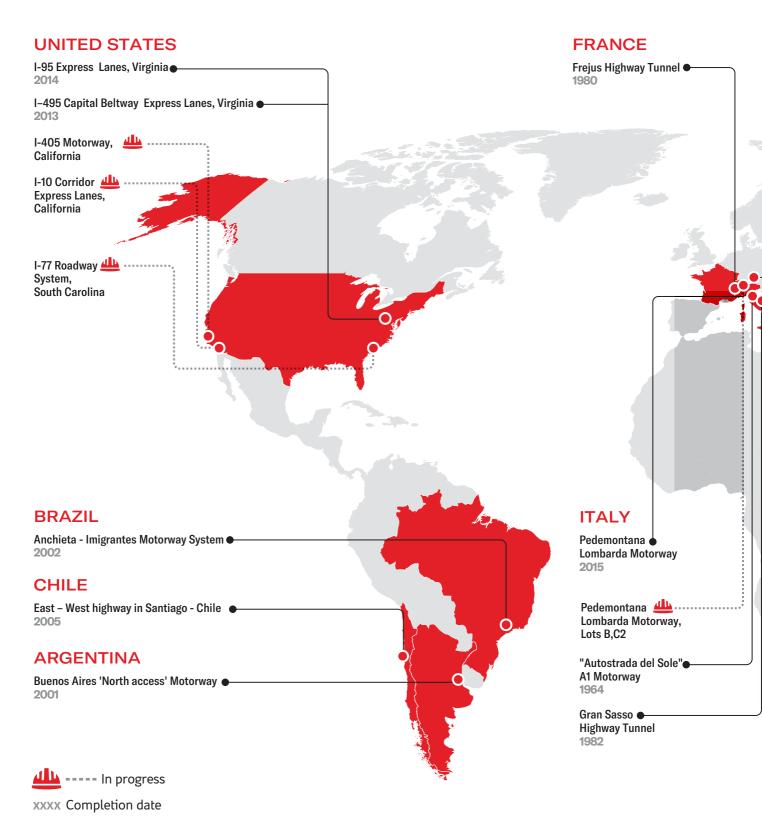
**1,482,354 m<sup>3</sup>** open air excavation

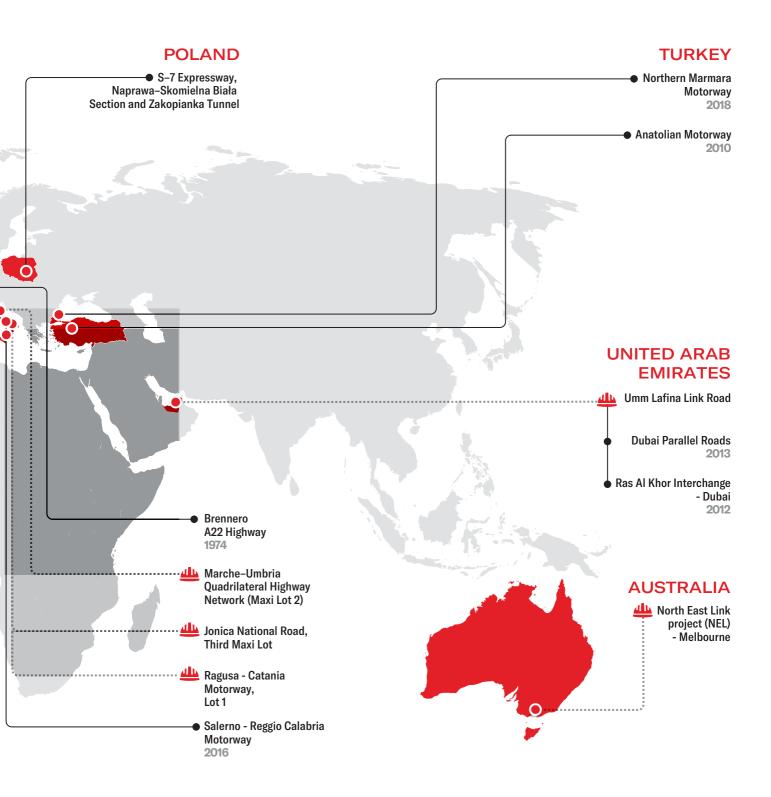
SUSTAINABILITY KPIs

-20% time of travel between Oslo and Tønsberg

-35% time of travel between Skien and Oslo

### BUSINESS MAIN ROADS AND MOTORWAYS





#### **COMPANY PROFILE**



### <u>USA</u>

# I-10 CORRIDOR EXPRESS LANES, CONTRACT 1, CA

A new infrastructure to respond to population growth in San Bernardino County

The I-10 Corridor serves on average 265,000 daily local, commuter, and interstate travelers, and is a critical link within the Inland Empire. It also serves as a major trucking route between Southern California and the rest of the country. The project includes the design and construction of 11 miles (approximately 18 km) of two express lanes in each direction of I-10 from the Los Angeles/San Bernardino County line to east of the I-10/I-15 interchange. The project includes the widening of the existing highway, partial pavement rehab, bridge and drainage works, utilities.

**TECHNICAL/PRODUCTION KPIs** 

570,000 tons PCCP concrete

200,000 t structural concrete

**2,177,450 m<sup>3</sup>** earthmoving

SUSTAINABILITY KPIs

50% time of travel during peak hours



### MARCHE-UMBRIA QUADRILATERAL HIGHWAY NETWORK (MAXI LOT 2)

One of the largest road infrastructure projects currently under construction in Italy

The Marche-Umbria Quadrilateral project is intended to improve mobility between the two regions, as well as with the rest of Italy. It involves the construction of road infrastructure, the main axes of which form a conceptual quadrilateral. All in all, the project encompasses the completion and upgrading of two main thoroughfares: Maxi Lot 1 (covering the Foligno-Civitanova Marche SS77 axis) and Maxi Lot 2 (covering the Perugia-Ancona SS76 and SS318 axis, for an approximate total of 31 km of dual carriageway, 22 km of which passes through tunnels, as well as the Pedemontana delle Marche over the Fabriano-Muccia/Sfercia section, which is approximately 36 km of single carriageway in total, 5 km of which passes through tunnels). The Webuild Group is currently carrying out work on Maxi Lot 2. The route of Maxi Lot 2, which is split into two separate lots, covers 67 km, including 25 km of tunnels and 55 viaducts. So far, 47 km of this has already been completed and opened to traffic. TECHNICAL/PRODUCTION KPIs

+1,000,000 m<sup>3</sup> concrete

+9,100,000 m<sup>3</sup> earthworks

+90,000 tons

#### SUSTAINABILITY KPIs

### -20%

reduction in travel time on the Perugia-Ancona route

### Between -30 and -80%

reduction in air pollution in inhabited areas it passes through



### PEDEMONTANA LOMBARDA MOTORWAY (SECTIONS B2 AND C)

New sustainable smart roads in northern Italy

Sections B2 and C of the Pedemontana Lombarda Motorway will be fully fledged sustainable smart roads. Section B2 will run between Lentate sul Seveso and Cesano Maderno, where it will join up with the existing Section B1. Section C will link Cesano Maderno with Usmate-Velate, integrating with the A51, Milan's eastern ring road. The project includes the construction of around 25 km of motorway to improve the road links in the Varese-Como-Bergamo-Milan quadrant. In an effort to minimise its environmental impact and as a way of passing through one of the most densely built-up areas in Europe, around 85% of the route is underground. The project aims to ease congestion on the A4 and in the urban areas it runs through by improving the East-West axis of Corridor V of the TEN-T network. These smart roads will be fitted with Cooperative Intelligent Transport Systems (C-ITS) and technologies designed for self-driving vehicles, as well as a continuous diagnostic system for their load-bearing structures. There are also plans to clean up and reclaim the areas affected by the 1976 Seveso disaster.

**TECHNICAL/PRODUCTION KPIs** 

**1,100,000 m<sup>3</sup>** of concrete (estimate)

90,000 tons of steel (estimate)

of steel (estimate)

9,100,000 m<sup>3</sup> of excavations (estimate)

#### SUSTAINABILITY KPIs

5 provinces linked

### 120,000 m<sup>2</sup>

reclaimed areas (estimate)





### IONIAN MOTORWAY (MEGA LOT 3)

A strategic component in the development of southern Italy's road network

Mega Lot 3 of the Ionian Motorway (SS106) is an essential element in the plan to transform the Ionian Corridor into an infrastructure that greatly facilitates communication, linking the Ionian coasts of Calabria, Basilicata and Puglia. It will complete the ring linking the A2 Mediterranean Motorway and the A14 Adriatic Motorway, improving mobility across southern Italy and the accessibility of various towns in Calabria, reducing journey times whilst also increasing road safety. Mega Lot 3 encompasses the main set of works planned along the Calabrian stretch of the SS106 and includes 38 km of main country roads, 14 tunnels, 15 viaducts spanning a total length of 7 km, four junctions and assorted minor works. The first 18 km of the route runs alongside the Sibari Plain; the remaining 20 km, meanwhile, passes through the Apennines, requiring the excavation of 11 km of tunnels and the construction of viaducts with piers over 40 m tall and spans of up to 120 m long. The project is notable for its innovative, modern approach, using tailor-made solutions to navigate the complexities of the terrain. The area includes the Archaeological Park of Sibari and the Castle of Roseto.

#### **TECHNICAL/PRODUCTION KPIs**

**39** simultaneous construction sites

**14** tunnels

15 viaducts

SUSTAINABILITY KPIs

### 99%

waste recovery rate in 2022

### From 36 to 20 min

reduction in travel time between Sibari and Capo Spulico



### AUSTRALIA

### NORTH EAST LINK (NEL)

It is the largest private-public partnership (PPP) for an infrastructure project in Australia

Part of the State of Victoria's Big Build infrastructure investment programme, it is the state's biggest road project. In addition to the tunnels, the project will include interchanges at the M80 Ring Road, Grimshaw Street, Lower Plenty Road, Manningham Road and Bulleen Road. There will be Melbourne's first dedicated bus lane with express lanes along the Eastern Freeway. Up to 135,000 vehicles will use the North East Link every day, reducing congestion in the city's northeast while maintaining local roads for local trips and the environmental impact. **TECHNICAL/PRODUCTION KPIs** 

6.5 km twin tunnels

SUSTAINABILITY KPIs

+25 km walking and cycling path

**15,000** trucks off roads per day



### UAE

### DUBAI PARALLEL ROADS

### A vital artery to the financial heart of Dubai

The project involved the construction of two road sections in Dubai: the first near the World Trade Center connecting Second Zabeel Road to Sheikh Rashid Road; the second consisting of a series of roads and bridges to improve traffic flow in the "Jumeirah Lake Towers" area. The construction of the 24 bridges stipulated by the two contractual lots required special solutions, including the use of launching gantries with an innovative "Combo" methodology for the first lot in order to finish the work quickly, and reduce traffic disruption. The project also included the construction of new roads, the expansion of existing ones, the construction of access ramps and installation of vertical and horizontal signs, street lighting and the repositioning of a high number of sub-services. **TECHNICAL/PRODUCTION KPIs** 

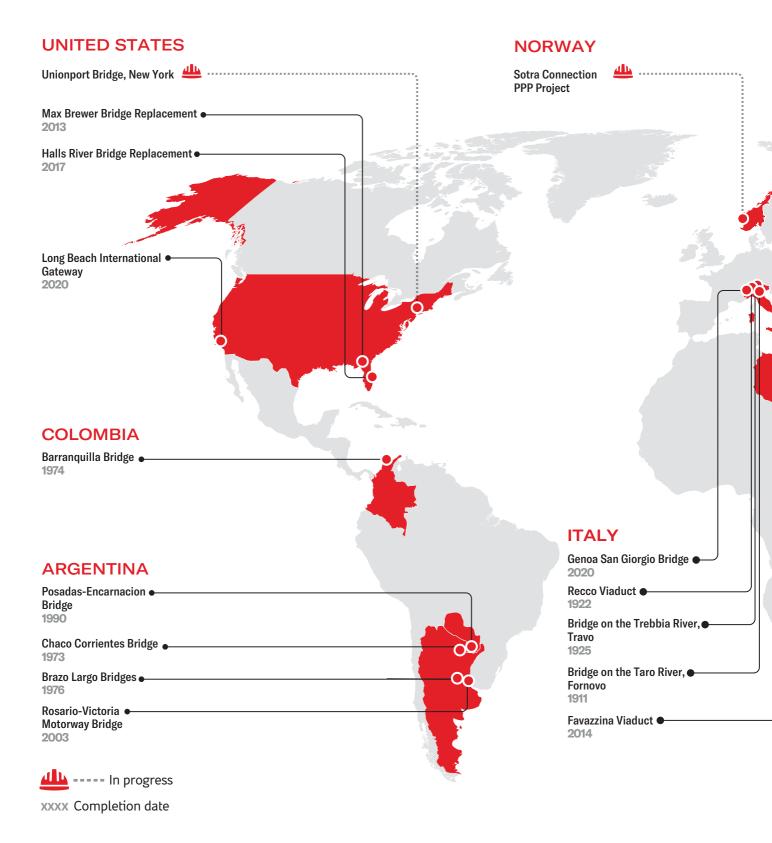
100,000 m<sup>3</sup> concrete

**250,000 m<sup>2</sup>** paving

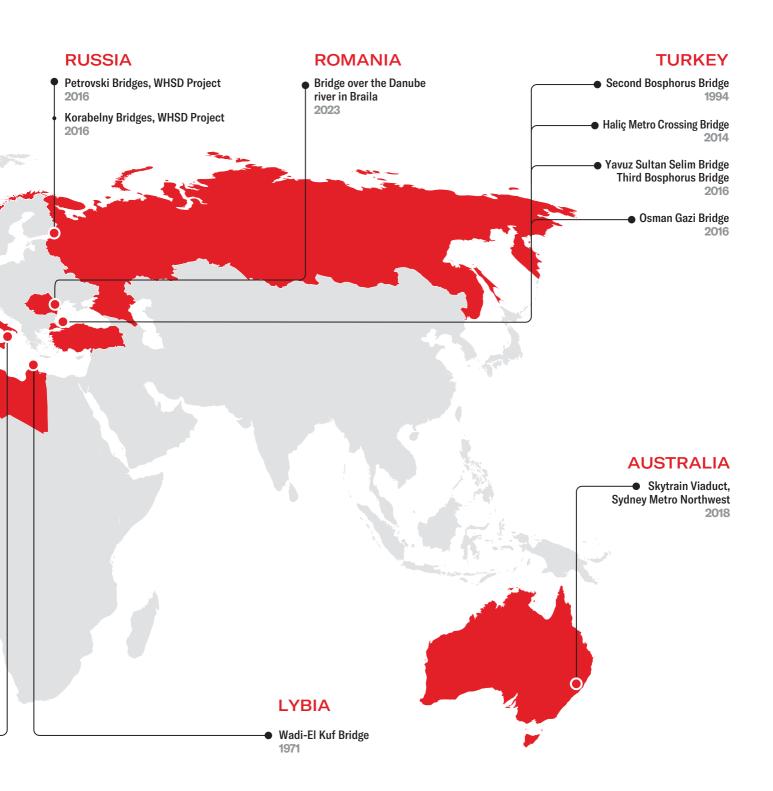
SUSTAINABILITY KPIs

Reducing traffic congestion in the city

### BUSINESS MAIN BRIDGES AND VIADUCTS











### **GENOA "SAN GIORGIO" BRIDGE**

A smart and sustainable bridge for connections and transport in Liguria and Italy

The bridge has a continuous steel deck 1,067 metres in length with 19 spans supported by 18 elliptical piers made of reinforced concrete, the majority of which positioned 50 metres from each other. The collection of sunlight through its photovoltaic solar panels will allow the structure to produce the energy required for the night and day operation of all its systems, such as lighting, sensors and plants. The high quality of the structure of steel and cement will guarantee its longevity while maintaining the highest levels of safety thanks to a special system that will dehumidify the inside of the structure to avoid condensation and corrosion. The construction of the bridge, achieved in record time (a mere 15 months from start to finish), has become the symbol of Genoa's rebirth after the city was wounded by the collapse of the Morandi Bridge, but also of a new developmental phase for Italy. Underpinning the success of its construction is a model centred around collaboration between large companies working closely with one another and the public.

**TECHNICAL/PRODUCTION KPIs** 

67.000 m<sup>3</sup> concrete

24,000 tons steel

80.000 m<sup>3</sup> open excavations

SUSTAINABILITY KPIs

### 100%

reused excavation waste

### 95%

the energy needed for the functioning of the bridge's system is produced by photovoltaic solar panels



### <u>USA</u>

### LONG BEACH INTERNATIONAL GATEWAY, CA

An iconic project for the city of Long Beach that has helped to improve traffic flow and road safety

The Long Beach International Gateway, a cable-stayed bridge, is a strategic hub for links between the city and the port of Long Beach, whose skyline it has helped to redefine. It has a total length of 2,680 m, with a main span of 330 m and access viaducts stretching approximately 2 km. Its construction was intended to replace an existing structure – the Gerald Desmond Bridge – with a more modern infrastructure that better conformed to earthquake resistance requirements, as well as to improve traffic flows and ease congestion. The capacity of the previous bridge, built in the 1960s, could no longer keep up with the city's evergrowing volumes of traffic. The project to build the Desmond's replacement was exceptional due to the technical and organisational solutions adopted, which are typical of strategic infrastructures, where new structures must be built without obstructing the existing ones. Working without hindering the rail, road and maritime traffic was an essential condition for its successful construction.

**TECHNICAL/PRODUCTION KPIs** 

7,650 tons structural steel

23,500 tons reinforced steel

190,000 m<sup>3</sup> reinforced concrete

SUSTAINABILITY KPIs

**1,200** vehicles/hour

100 anni expected life span

Accessibility of the port for the latest generation of cargo ships



### TURKEY

### NORTHERN MARMARA MOTORWAY AND YAVUZ SULTAN SELIM BRIDGE - THIRD BOSPHORUS BRIDGE

Europe and Asia getting closer thanks to the bridge of records

The construction of 150 km of the Northern Marmara Motorway stretch included the Third Bosphorus Bridge (now named Yavuz Sultan Selim Bridge) which is:

- $\rightarrow\,$  the world's longest and widest hybrid bridge (width of 59 m and main span of 1,408 m);
- $\rightarrow\,$  the first bridge designed to host an 8-lane highway and a double-track railway all at same level;
- $\rightarrow\,$  the bridge with the highest tower in the world, above 320 m.

**TECHNICAL/PRODUCTION KPIs** 

241,000 m<sup>3</sup> concrete

5,000 tons steel

897,000 m<sup>3</sup> open excavations

SUSTAINABILITY KPIs

**39,000,000** people in the catchment area

3.5%

energy consumption driven from renewable energy sources (during operation phase)



#### ROMANIA

### BRIDGE OVER THE DANUBE RIVER, BRĂILA

The second-longest suspension bridge in continental Europe

At 1,975 m long, the Brăila Bridge over the Danube is Romania's longest and continental Europe's second- longest suspension bridge. The central span measures 1,120 m, with a width of 31.7 m and two towers at just over 192 m high. The project includes 23 km of linked roads. Its construction has required some complex operations. Like the assembly of its two load-bearing cables, created by twisting over 18,000 steel wires (more than 9,000 for each cable), with a total weight of 6,775 tonnes. Or the assembly of the steel deck: more than 250 workers and specialist technicians installed the 86 segments of the deck – each with an average weight of 260 tonnes – using a specially designed launching and installation process. The bridge connects the two sides of the Danube in the Galati and Brăila area, reducing crossing times for around 7,000 vehicles every day from at least 45 minutes to a mere two on weekdays.

**TECHNICAL/PRODUCTION KPIs** 

297,000 m<sup>3</sup> concrete

**52,360 tons** steel

**19,000 m<sup>2</sup>** of 1m-thick diaphragms

SUSTAINABILITY KPIs

**7,000** vehicles/day

### From 45 to 2 min

reduction in river crossing time on weekdays

Reduction of CO<sub>2</sub> emissions



### AUSTRALIA

### SKYTRAIN – SYDNEY METRO NORTHWEST

An elegant, innovative, environmentally sustainable project unlike any other in Australia

The Skytrain project for the Sydney Metro Northwest railway involved the construction of eight stations and approximately 15.5 km of tunnels, running from Epping to Bella Vista, as well as the construction of a 4.5 km-long viaduct – partly formed of a 270 m-long curved cable-stayed bridge – connecting the areas of Bella Vista and Rouse Hill. Every last aspect of the project is nothing short of outstanding, starting with the machinery used to construct it. Take for instance the two gigantic gantry cranes, each 150 m long and weighing 600 tonnes, used to lower the 1,200 precast concrete segments into place in order to form the viaduct. One of the greatest engineering challenges of this project involved overcoming the considerable torsion effect caused by the curvature of the bridge, in the presence of its railway loads and stays. An elegant, innovative, environmentally sustainable bridge unlike any other in Australia, it has garnered countless awards, including being named '2018 Project of the Year' by Engineering News-Record (ENR).

**TECHNICAL/PRODUCTION KPIs** 

**4,500 m** total length of the viaduct

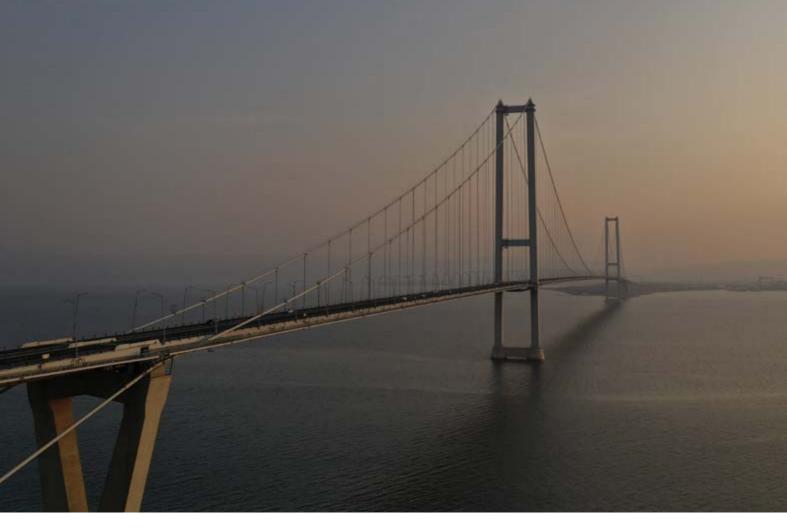
270 m length of the cable-stayed bridge

### 1,200

precast concrete segments comprising the viaduct

SUSTAINABILITY KPIs

ENR's 2018 Project of the Year



#### TURKEY

### THE SIXTH-LONGEST SUSPENSION BRIDGE IN THE WORLD AT THE TIME IT WAS BUILT

The sixth-longest suspension bridge in the world at the time it was built

The Osman Gazi Bridge is a cable-stayed suspension bridge that forms part of the wider project of constructing the Gebze-Orhangazi-İzmir Motorway. It was built on the Gulf of İzmit, on the easternmost edge of the Sea of Marmara, near the city of İzmit and approximately 50 km southeast of Istanbul, Turkey. The bridge spans a total of 3,300 m and, at the time it was built, it was the sixth-longest suspension bridge in the world (now seventh) in terms of length of the main span, which is 1,550 m long. The bridge is suspended 64 m above sea level, with steel pylons standing at just over 230 m high. Comprising six lanes overall (three going in either direction), its construction has reduced the time taken to cross the bay from 60 minutes down to a mere six. The bridge was built in one of the most earthquake-prone areas in the world and so, to make the bridge as sturdy as possible, the pylons were built on a concrete base which rests on a large bed of gravel, allowing the pylons freedom to slide around in case of severe seismic events.

**TECHNICAL/PRODUCTION KPIs** 

**3,000 m** length of the bridge

**1,550 m** length of the main span

230 m maximum tower height

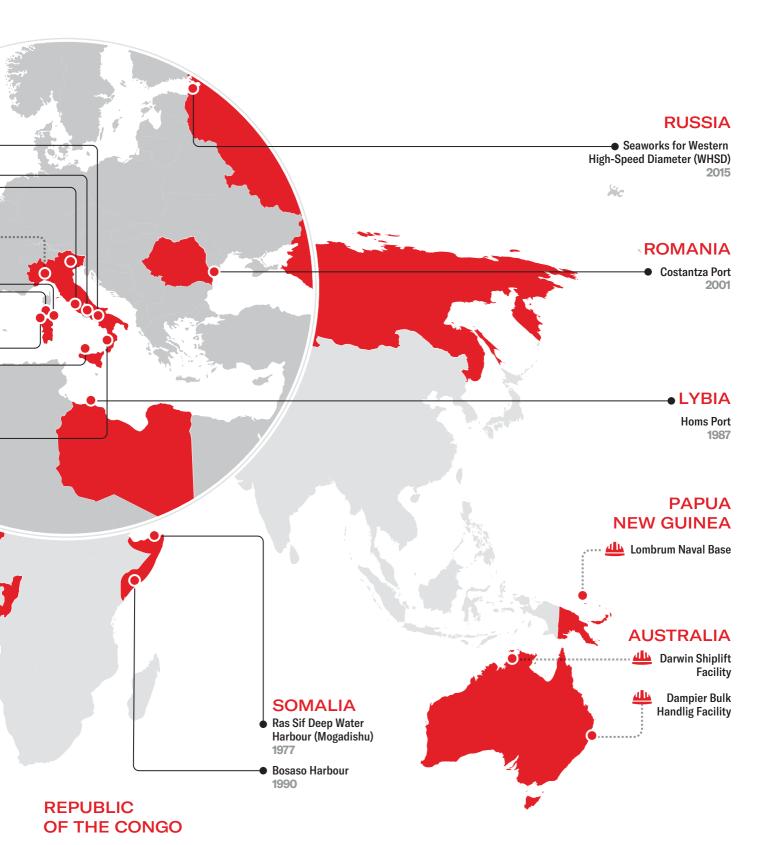
SUSTAINABILITY KPIs

From 60 to 6 min reduction in bay crossing time

### BUSINESS MAIN PORTS AND SEA WORKS

ITALY		
Pozzuoli Port	Naples Port	
2006	1996	
New Genoa Breakwater 🔐	Civitavecchia Port  Cruise Ships Quay	
Olbia Industrial Port	2000	
and Isola Bianca Dock		
1999		
Porto Torres Port Technical Upgrading		
2007		
Santa Teresa di Gallura 🖕 Harbour (Sassari)		
1999	MORC	0000
Palermo Port 1948	Mohammed extention v	
Gioia Tauro Port	1985	
1987		
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	Ť.	
HONDURAS San Lorenzo Port		
1979		
PANAMA		
The New Panama Canal		GUINEA
2016		Kamsar Port
		1973
		NIGERIA Apapa Port - Second •
····· In progress	~~dj	Wharf extension 1966
xxxx Completion date		

4



 New Quay of Pointe Noire Port 2001



### THE NEW PANAMA CANAL

## Redrawing global shipping routes saving and reusing water

With 74 million cubic metres of excavations, 5 million cubic metres of concrete, 1.6 million tons of cement and 7.1 million cubic meters of dredging, the Third Set of Locks Project is the biggest feat of engineering to take place in several decades. A complex system of interconnected basins guarantees minimum impact on the environment, reducing the dispersion of fresh water flowing in the artificial basins, to the minimum. The New Panama Canal is a revolution for global trade. The approximately 12 thousand ships that currently cross it each year, will be connected to 1,700 ports belonging to 150 countries and to 144 maritime routes.

#### **TECHNICAL/PRODUCTION KPIs**

### 290,000 tons

reinforced steel

### 3,300 tons/hour

concrete aggregates production

### 1,240 m<sup>3</sup>/hour

concrete production

#### SUSTAINABILITY KPIs

### 60%

water saving thanks to the innovative Water Saving Basins system

### +100

species typical of the tropical habitat were rescued during the construction

### -16,000,000 tons

CO<sub>2</sub> emissions per year by enabling Post-Panamax ships to cross America instead of sailing round the continent







1P ......

VIII)



### NEW BREAKWATER IN GENOA

An example of exceptional innovation in engineering

The New Breakwater in Genoa is a key element in the overarching infrastructure investment plan to improve the city. The project is intended to consolidate the role of Genoa's port in the Rhine-Alpine Corridor of the TEN-T Trans-European Transport Network, which the Terzo Valico dei Giovi - Genoa Hub Single Project (another Webuild project) forms part of. This new infrastructure will allow for goods arriving from the Mediterranean basin to be delivered all over Europe, with a reduction in transportation times. The new dam will be longer and wider than the current one, making the port accessible to the latest generation of ships, which can reach up to 400 m long. It will be the result of a one-of-a-kind project in terms of both sheer scale and the complexity of the engineering. It will be built offshore using innovative techniques, all without interrupting the normal operation of the port. Its foundations will rest on the seabed at variable depths of up to 50 m, and it will consist of approximately 90 precast reinforced concrete caissons (for the first 4km of the works) lined up next to one another.

**TECHNICAL/PRODUCTION KPIs** 

~6,000 m overall length of the new breakwater

800 m diameter of the new turning basin

50 m maximum depth

SUSTAINABILITY KPIs

### ~1,000

workers employed (at its peak, including direct employees and subcontractors)

#### Italian consortium

### BUSINESS

# CLEAN HYDRO ENERGY

 $\rightarrow$  Hydroelectrics Dams & Plants  $\rightarrow$  Pumped Storage Hydropower's great reliability and flexibility are key to the global energy transition as it can balance and stabilize the energy injected into the grid by other intermittent renewable sources like wind and solar power.

Hydropower is one of the renewable sources with the lowest unit cost, which makes it particularly suitable for those areas of the world where most of the population still does not have electricity, like some of the emerging economies.

The hydropower projects that Webuild is currently developing will have capacity of more than 14,000 MW and will provide low-cost clean energy to the equivalent of over 23 million residents around the world, especially in the Horn of Africa (Ethiopia and surrounding countries), Central Asia (Tajikistan and adjacent countries) and Australia. This should potentially avoid emissions of roughly 13 million tons of  $CO_{2}$  a year.

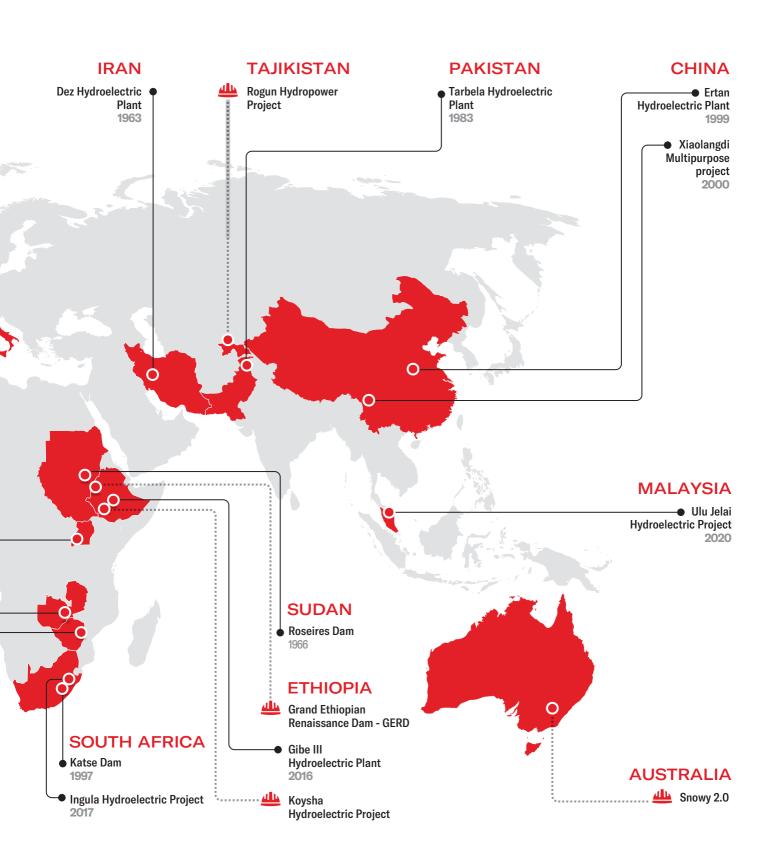
Webuild has strong experience in various construction methods and environmental contexts as it has carried out projects in Europe, North and South America, Africa, Asia and Oceania. By operating in full compliance with international social and environmental standards, our projects serve as a global benchmark worldwide.

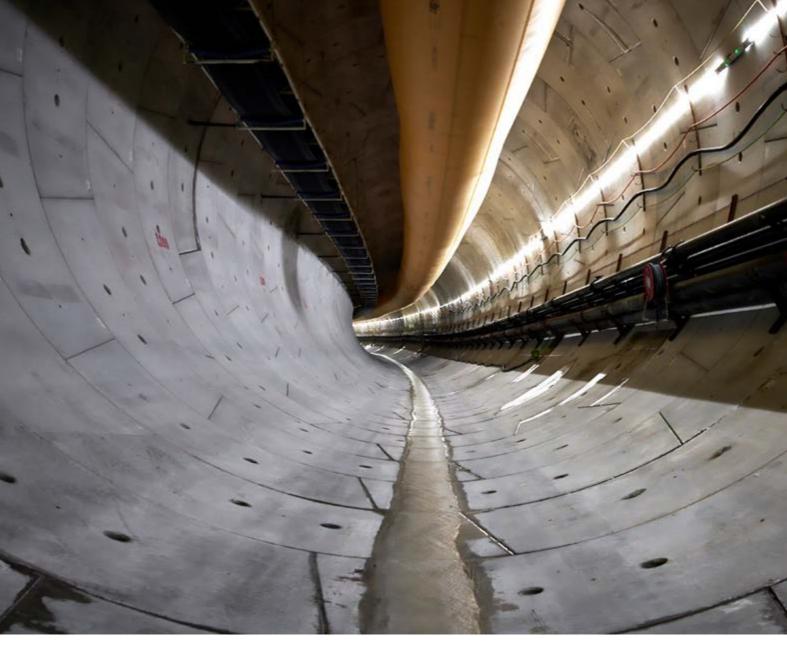
### BUSINESS MAIN CLEAN HYDRO ENERGY PROJECTS



xxxx Completion date







#### AUSTRALIA

# **SNOWY 2.0**

A project designed to generate clean energy to support Australia's energy transition Snowy 2.0 is a Pumped Storage Scheme. It is the largest committed renewable energy project in Australia. Snowy 2.0 will underpin the nation's secure and stable transition to a low-carbon emissions future at the lowest cost for consumers. The project involves linking two existing dams, Tantangara and Talbingo, through 29 km of tunnels and building a new underground power station with pumping facilities. Snowy 2.0 will increase by 2,200 MW (latest figures) the generating capacity of the Snowy Mountains Hydro-electric Scheme currently producing 4,100 MW. The new facility will boost the pumping capacity of the system, which is used to provide for the country's energy needs at times of peak demand or in case of supply shortages from renewable sources such as wind or solar power, supplying 350,000 MWh of large-scale storage, equivalent to 160 hours.





#### **TECHNICAL/PRODUCTION KPIs**

29 km TBM Tunnel excavation

**485,000 m<sup>3</sup>** Power House Complex excavation

**3,000,000 m<sup>3</sup>** earthworks

SUSTAINABILITY KPIs

**350,000 MWh** energy storage capacity

160

hours of energy supply guaranteed by the system before requiring recharging

>4,000 jobs (including direct employees and subcontractors) created in the Snowy Mountains region



### TAJIKISTAN

# ROGUN HYDROPOWER PROJECT

The tallest dam in the world to double the Tajikistan's energy production

The project consists of the construction of a 335-metre-high rockfill dam, the tallest in the world, on the Vakhsh River. The dam will be located in Pamir, one of Central Asia's main mountain ranges. Once completed, the plant will have 6 turbines of 600 MW each with a total installed capacity of 3,600 MW (the equivalent of three nuclear power plants). The Project foresees an early generation stage, today already concluded, with the activation of the first two turbines and the putting into operation of the following four within 2026.

**TECHNICAL/PRODUCTION KPIs** 

**74,000,000 m<sup>3</sup>** dam embankment

2,600,000 m<sup>3</sup> open excavations

100,000 m<sup>3</sup> underground excavations

SUSTAINABILITY KPIs

**-1,200,000 tons** CO<sub>2</sub> emissions per year



**ETHIOPIA** 

# GRAND ETHIOPIAN RENAISSANCE DAM PROJECT (GERDP)

The dam that will help to transform Ethiopia into the 'green lung' of Africa

The GERDP is an extraordinary feat of engineering that promises to transform the future of energy for Ethiopia. Once works are complete, it will be the largest dam in Africa and will provide a sustainable contribution to the country's energy development, supporting it in its efforts to reach carbon neutrality by 2025 and helping to prevent over two million tonnes of  $CO_2$  from being released into the atmosphere every year. The dam has been partly operational since February 2022, with two 375 MW turbines up and running. The GERDP is located about 700 km northwest of Addis Ababa, along the waters of the Blue Nile River. The main element of the project is a truly vast dam made of roller-compacted concrete (RCC), measuring 1,800 m long and 170m high. It required 10.7 million cubic metres of RCC to construct. The dam forms a reservoir covering an area of 172,500 km<sup>2</sup> which can hold up to 74 billion cubic metres of water. Work is nearing completion on two hydroelectric power plants at the foot of the dam, housing a total of 13 Francis turbines between them. **TECHNICAL/PRODUCTION KPIs** 

170 m height

5,150 MW total installed capacity

**15,700 GWh** expected average annual electricity production

#### SUSTAINABILITY KPIs

-2,000,000 t CO, emissions avoided every year



### MALAYSIA

# ULU JELAI HYDROELECTRIC PROJECT

A sustainable hydro-project to improve the energy production of the country

The Ulu Jelai plant is part of a programme that was promoted to develop hydroelectric energy in five sites, so that Malaysia can increase its hydroelectric capacity from its current 1,900 MW to more than 3,000 MW by 2020. Solutions to optimize the project's environmental impact were developed, and energy production efficiency also greatly improved: according to a UN report, Ulu Jelai generates a great quantity of energy with a reservoir with limited dimensions. **TECHNICAL/PRODUCTION KPIs** 

4,037,000 m<sup>3</sup> excavation and earth moving

729,000 m<sup>3</sup> volume of RCC dam

950,000 m<sup>3</sup> underground rock excavations

SUSTAINABILITY KPIs

-250,000 tons CO<sub>2</sub> emissions per year



# COLOMBIA

# SOGAMOSO HYDROELECTRIC PROJECT

A project with an important role in generating the annual average of energy requirement

The Sogamoso hydroelectric dam rises far above the eponymous river, using its waters to turn its massive turbines to produce about 10% of the country's electricity. Inaugurated in 2015, it is the fourth largest dam in Colombia with 820 megawatts of installed capacity. The operation involved the construction of a dam, 190 m high and 300 m long, of an underground power station that houses three turbines, of two diversion tunnels approximately 870 metres long, and the building of the system of access roads and tunnels for the underground power station.

TECHNICAL/PRODUCTION KPIs

**493,000 m<sup>3</sup>** of concrete

**20,200 t** of steel

**8,350,000 m<sup>3</sup>** dam embankment

SUSTAINABILITY KPIs

# 10%

total production of Colombia's electricity



# **ETHIOPIA**

# GIBE III HYDROELECTRIC PLANT

A project to boost the national energy production by 85%, meeting the growing demand for energy

The works involved the design and construction of the tallest RCC dam in the world at the time of completion, and an open-air power plant with 10 Francis turbines, which have a total installed power of 1,870 MW and an expected energy output of 6,500 GWh per year. The project also involved three diversion tunnels and two twin adduction tunnels, two intake structures, two horizontal tunnels, four vertical shafts and two distributors. The project is the natural extension of the biggest complex along the Gilgel Gibe River with the two other hydroelectric dams Gibe I (completed and operational since 2004) and Gibe II (operational since 2010).

**TECHNICAL/PRODUCTION KPIs** 

6,214,000 m<sup>3</sup> Roller Compacted Concrete (RCC)

**1,270,000 m<sup>3</sup>** excavation of river diversion tunnel (x3)

1,500,000 m<sup>3</sup>

tunnel excavation twin adduction tunnels

SUSTAINABILITY KPIs

**-2,500,000 tons** CO<sub>2</sub> emissions per year



# ICELAND

# KÁRAHNJÚKAR HYDROELECTRIC PLANT

Clean hydro energy from the glacial waters

Located less than 200 km from the Arctic Circle, the Kárahnjúkar concrete-faced rockfill dam, with its 193 m in height, is the tallest dam in the Nordic region and the first of its kind in Europe. It receives the glacier waters of the Jokulsa a Dal River and transfers them to a 690 MW underground powerhouse. The headrace tunnel system, with a total length of around 50 km, was excavated with three TBM's.

TECHNICAL/PRODUCTION KPIs

**254,000 m<sup>3</sup>** of concrete

8,870,000 m<sup>3</sup> dam's rockfill embankment

**396,000 m<sup>3</sup>** open excavations

SUSTAINABILITY KPIs

Iceland's major hydro plant, contributing to maintain the country a world leader in renewable energy



#### PARAGUAY

# YACIRETÀ HYDROELECTRIC PROJECT AND POWER PLANT

Upgrading the existing plant on the Río Paraná

The existing dam, completed in 1998, measures nearly 70 km in length and stretches for 18.7 km across the Argentinian and Paraguayan sides of the Paraná river. The dam's reservoir of this bi-national project has a surface area of 1,600 km<sup>2</sup>, and a total volume of water of 21 billion m<sup>3</sup>. The powerhouse currently houses 20 Kaplan turbines for a total installed capacity of 3,200 MW capable of providing approximately 60% of Argentina's hydroelectric energy, and 22% of the national energy demand. The new ongoing contract includes all civil works and some electromechanical works for the installation of three additional Kaplan Turbines. Once completed, the plant will register an increase in installed power of 270 MW and will have an average energy production of 1,700 GWh per year. The works for this upgrade will be mainly carried out in Paraguay.

**TECHNICAL/PRODUCTION KPIs** 

**265,000 m<sup>3</sup>** of concrete

11,500 tons of steel

1,386,000 m<sup>3</sup> open excavations

#### SUSTAINABILITY KPIs

**9%** increased installed capacity

-265,000 tons CO, emissions per year



### CANADA

# JAMES BAY HYDROELECTRIC POWER PROJECT

An extremely challenge construction site for the major hydro project in Canada

The James Bay is a complex project to exploit the water resources of the rivers to the east of James Bay to produce electrical power. The system produces around 83 billion kWh electricity each year. The most critical element in the overall project was having to deal with the extreme climatic conditions during the long winters. Along with China and Brazil, today Canada is one of the world's leading producers of hydroelectric power (with an export quota of as much as 30%). The James Bay system is the largest hydroelectric complex in the country with a combined generation capacity of 16,021 MW.

**TECHNICAL/PRODUCTION KPIs** 

160 m height

**25,000,000 m<sup>3</sup>** dam volume

2.896 m

spillway channel length

#### SUSTAINABILITY KPIs

### 50%

total consumption of Quebec satisfied by the clean energy produced by the plant

BUSINESS

# CLEAN WATER

- $\rightarrow$  Desalination & Water Treatment
- → Wastewater Management Plants
- $\rightarrow$  Hydraulic Works
- $\rightarrow$  Irrigation Dams

The Group is a global leader in the water infrastructure sector and active in the entire water cycle, from supply to drinking water to irrigation and the final treatment of wastewater.

Webuild is at the very top of global rankings in the water sector for over a decade, with Fisia Italimpianti, a Group subsidiary and leader of the desalination, drinking water and water treatment, and is a strategic partner for both private and public clients in areas subject to water stress, especially in the Middle East, where it has built essential water infrastructure for millions of people. Webuild also has immense experience in building water storage for drinking water and/or irrigation, environmental recovery projects and works to upgrade urban wastewater management infrastructure to make it more resilient to the increasingly frequent extreme weather events.

Every day, more than 20 million people are served by just the desalination plants built by Fisia Italimpianti while another approximate 15 million people will benefit from the hydraulic infrastructures currently being built by the Group.

# BUSINESS MAIN DESALINATION & WATER TREATMENT PLANTS AND PLANTS FOR WASTEWATER MANAGEMENT

# CANADA

Ashbridges Bay Treatment 😃 Plant Outfall

**ITALY**•

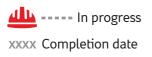
San Colombano Waste Water Treatment Plant 2010

# NIGERIA

Adiyan - Waterworks Phase II 414

# ARGENTINA

Riachuelo environmental restoration system – Lot 2

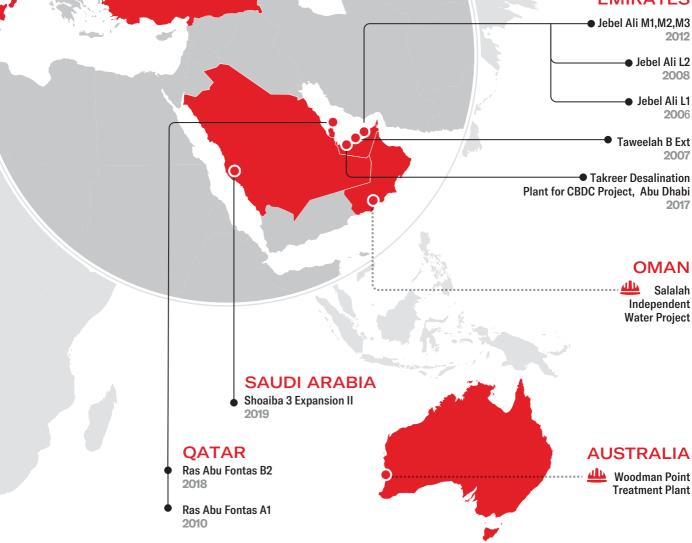






 Atakoy Water Treatment Plant 2018

# UNITED ARAB EMIRATES





# JEBEL ALI M DESALINATION PLANT

A great project to produce water for drinking and other domestic uses for Dubai's population

Jebel Ali M is an icon among the desalination sector: the project was the largest desalination plant in the UAE at the time of its completion. Built by Fisia Italimpianti, part of Webuild Group, it produces 636,400 m<sup>3</sup> of water every day thanks to its eight desalination units.

**TECHNICAL/PRODUCTION KPIs** 

# 8x17.5 MIGD

unit

9 perf. ratio

112°C top brine temperature

SUSTAINABILITY KPIs

636,000 m<sup>3</sup> water per day produced

2,500,000 people served





#### TURKEY

# ATAKOY WASTEWATER TREATMENT PLANT

A plant which can process a total of 20,000 cubic meters of water a day, serving a district of some one million people

Located in the south western part of Istanbul, on the European side, the plant uses advanced biological methods to treat the wastewater before discharging it into the Marmara Sea. Fisia Italimpianti, of the Webuild Group, completed in 2018 the extensive revamping works for the first phase and the construction of the additional second phase. Additionally a new section of 20,000 cubic meters per day based on Membrane Bio Reactor (MBR) technology – an innovative solution for Turkey – was added to allow for the reuse of the treated water for street cleaning and garden irrigation. **TECHNICAL/PRODUCTION KPIs** 

**100,000 m<sup>2</sup>** total area

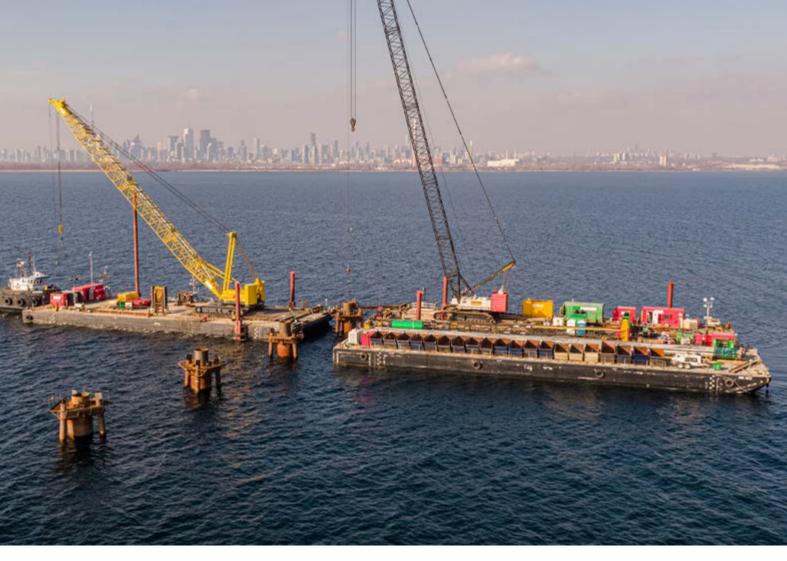
# 240,000 m<sup>3</sup>/day

capacity biological stage of the Activated Sludge Plant

SUSTAINABILITY KPIs

# 20,000 m<sup>3</sup>/g wastewater treated

**1,000,000** people served by the plant



#### CANADA

# ASHBRIDGES BAY TREATMENT PLANT OUTFALL

The largest and most significant water quality improvement plant undertaking in Toronto

Ashbridges Bay Treatment Plant (ABTP), in Toronto, calls for construction of a new discharge line for treated water in Ontario Lake. ABTP is one of the largest and oldest wastewater treatment plants in Canada. The contract includes an onshore well 85 m deep and 16 m of internal diameter, next to the coast line; a 3.5 km-long tunnel (internal diameter of 7 m), built by the bottom of the well and through the rock, beneath Lake Ontario's lakebed using a Tunnel Boring Machine; 50 risers, installed in line with the tunnel, for water discharge into the lake; a new canal that will transport treated water from the ABTP to the well. Once complete, the improved outfall will be able to handle up to 3,923 megaliters per day.

**TECHNICAL/PRODUCTION KPIs** 

~49,465 m<sup>3</sup> total concrete to be poured

212,480 m<sup>3</sup> open excavations

538,510 m<sup>3</sup> underground excavations

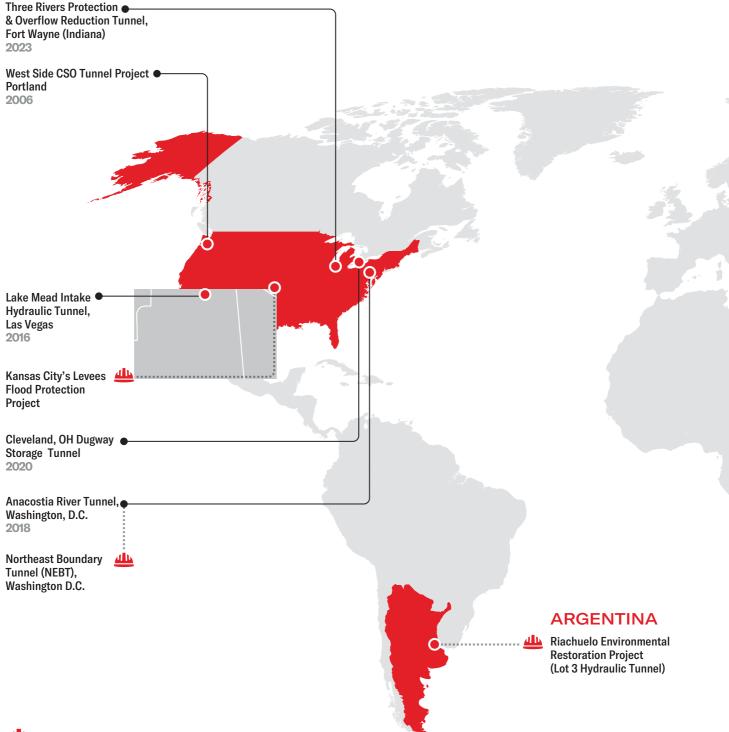
#### SUSTAINABILITY KPIs

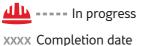
+23% improved outfall capacity

**1,400,000** people served by the plant

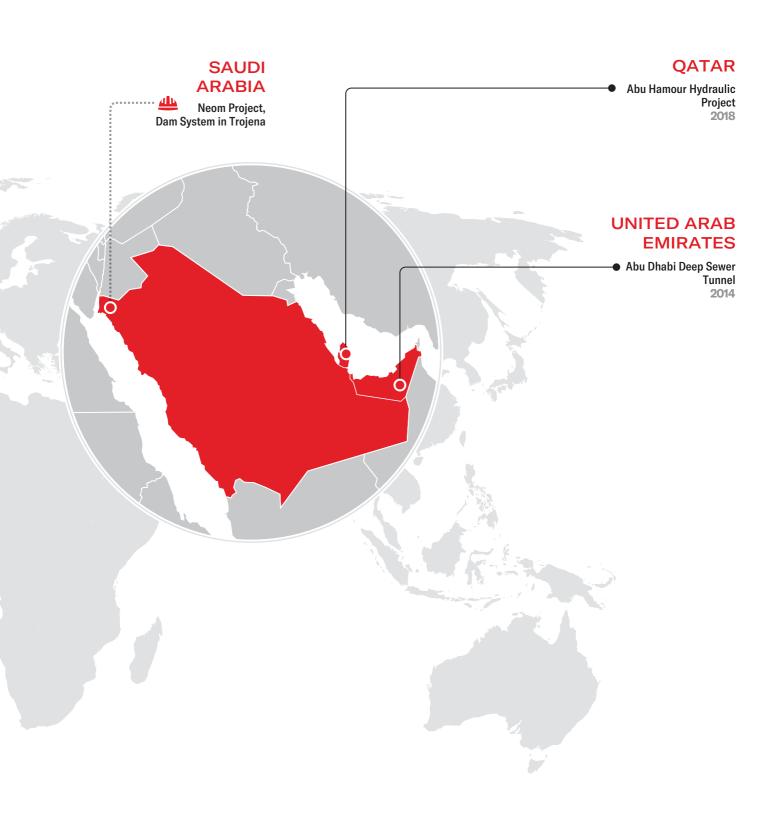
# BUSINESS MAIN HYDRAULIC WORKS

# **UNITED STATES**











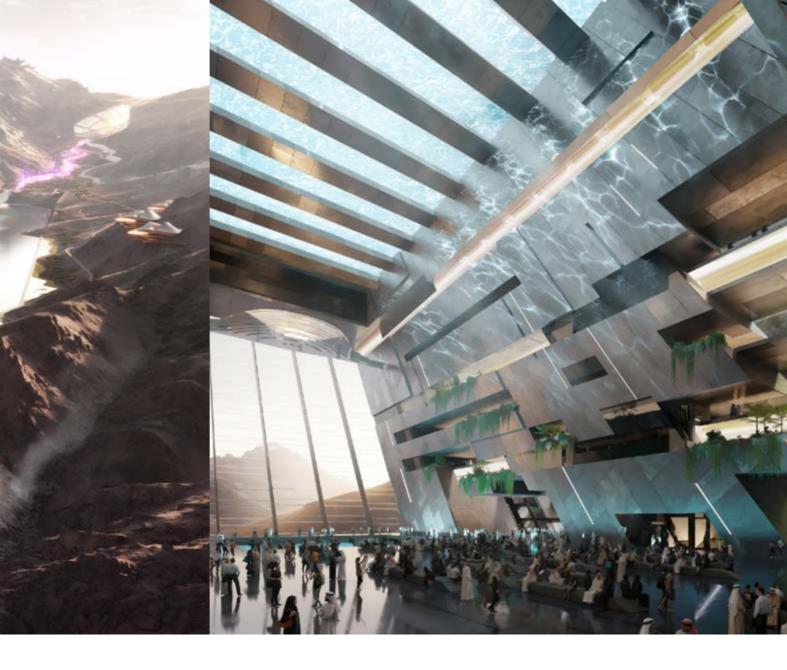
#### SAUDI ARABIA

# NEOM – DAM SYSTEM IN TROJENA

Innovation and sustainability in the Saudi Arabian desert

The project involves the construction of three dams and an artificial lake in the desert to serve Trojena, a zero-emissions city powered by renewable energy alone, which forms part of the NEOM project: an urban area being built in the highest peaks of Saudi Arabia, set to be an exemplar of technological excellence and sustainability. For Trojena, Webuild will also construct The Bow: an innovative structure shaped like the bow of a ship intended to house a variety of accommodation and recreational facilities. The main dam, made from roller-compacted concrete (RCC), will be 145 m high and 475 m long, with a volume of approximately 2.7 million cubic metres. The other two dams - one made from rock, the other from RCC - will have volumes of 4.3 million and 1 million cubic metres, respectively. The lake, covering an area of 1.5 km<sup>2</sup>, will be nestled between the main dam and the rock dam. The Bow, the most complex part of the project, will involve extending the lake's surface 75,000 m<sup>2</sup> beyond the façade of the main dam and will have a maximum internal height of 120 m. Its construction will require approximately 1.5 million cubic metres of concrete and 40,000 tonnes of metal carpentry.





#### **TECHNICAL/PRODUCTION KPIs**

 $\begin{array}{l} \textbf{2.7 million } m^3 \\ \text{volume of the main RCC dam} \end{array}$ 

 $\begin{array}{l} \textbf{4.3 million } m^3 \\ \text{volume of the secondary rock dam} \end{array}$ 

 $\label{eq:scondard} \begin{array}{l} 1 \ million \ m^3 \\ \text{volume of the secondary RCC dam} \end{array}$ 

SUSTAINABILITY KPIs

>10,000 jobs expected (including direct employees and subcontractors)



# USA

# NORTHEAST BOUNDARY TUNNEL (NEBT)

The biggest component of DC Water's Clean Rivers Project in Washington, D.C.

NEBT - the biggest component of DC Water's Clean Rivers Project in Washington, D.C. - is a sewer tunnel that will increase the capacity of the District's sewer system, significantly mitigating the frequency, magnitude and duration of sewer flooding and improving the water quality of the Anacostia River. The NEBT will run 26,700 feet (8.2 km). It also includes the construction of ventilation control facilities, stormwater inlets, and green infrastructure. **TECHNICAL/PRODUCTION KPIs** 

8.2 km tunnel length

**27-54 (15-48) m** 

SUSTAINABILITY KPIs

#### -86%

chance of flooding in the areas it serves per year

# -98%

untreated sewage and stormwater runoff (combined sewage) discharged to the Anacostia River per year





#### USA

# ANACOSTIA RIVER TUNNEL

A multi-awarded project to clean Washington, D.C. rivers

The Anacostia River Tunnel project, part of the "Clean Rivers" project of DC Water Authority, involved the construction of a 3.8 km-long hydraulic tunnel which, connected to the district's network, contributes to reducing the volume of wastewater and runoff that flows into the Anacostia River by 98%. The TBM was fully assembled on the surface and then lowered to the bottom of the shaft by means of an overhead travelling crane and hydraulic jacks, for a total of about 650 tonnes. This solution allowed the machine assembly work to be carried out while other critical processes are under way, thus saving time and resources. In 2017, the project received the Award for Sustainability Initiative of the Year from the "International Tunneling and Underground Space Association". The use of concrete segments only reinforced with fibres is an innovation for the US, as are several solutions used for the TBM (the vacuum erector system) and the spoils (the overhead travelling crane and electro hydraulic bucket). Innovative gaskets for the precast tunnel lining segments, directly anchoring to the precast segment during casting, therefore saving materials and labour usually needed for postcasting installation.

#### **TECHNICAL/PRODUCTION KPIs**

#### 3.8 km

tunnel length

#### 6

shafts from 9 to 22 m in diameter and approximately 30 m deep

#### 1

soft ground tunnel with a minimum internal diameter of 7 m

#### SUSTAINABILITY KPIs

#### -86%

chance of flooding in the areas it serves per year

# -98%

untreated sewage and stormwater runoff (combined sewage) discharged to the Anacostia River per year



### ARGENTINA

# RIACHUELO ENVIRONMENTAL RESTORATION PROJECT, LOTS 2 AND 3

A sanitation project to ensure a sewer network for more than 4 million people

The Riachuelo system in Buenos Aires is a mega infrastructure and engineering project for the reduction of organic pollution in the Rio de la Plata, where the most contaminated river in Argentina, the Riachuelo river, flows. At 12 kilometres, the project ranks among the 10 longest sub-fluvial tunnels worldwide. The sub-fluvial tunnel will allow for the diffusion of wastewater treated at a new plant and will serve to improve the quality of the water. The tunnel will be hydraulically connected to the river using 34 m-high vertical diffusers, created using an innovative technology known as the 'Riser Concept'. In correspondence of each diffuser, or "Riser", a pair of special rings have been installed to allow in a second phase the vertical jacking of the Riser itself from inside the tunnel. In 2021, the Riser Concept won a prestigious ITA Tunnelling Award as the Technical Innovation of the Year.

**TECHNICAL/PRODUCTION KPIs** 

**314,000 m<sup>3</sup>** of concrete

19,000 tons of steel

900 employees

SUSTAINABILITY KPIs

4,300,000 people served in the area

2,300,000 m<sup>3</sup>/day wastewater treated



#### USA

# LAKE MEAD INTAKE HYDRAULIC TUNNEL

The tunnel beneath the lake that provides Las Vegas with fresh water

The project represents one of the greatest challenges in underground works: to quench the thirst of Las Vegas with 4,500,000 m<sup>3</sup> of drinking water and water for domestic use to the urban area of Las Vegas. Water supply is guaranteed even in the case of severe drought. The work comprised an access shaft, excavated out of the rock on the shore of the lake, about 200 m deep and with an internal diameter of 9.15 m. A tunnel has been constructed at the bottom of the shaft, under the lake bed, approximately 4,600 m long and with an excavation diameter of 7.22 m. The intake structure is located at the end of the tunnel, approximately 100 metres below the surface of the lake, made from a structure in reinforced concrete with a pipe-shaped tubular steel structure on top, with a diameter of 6 m, 30 m high and weighing about 1,250 tonnes.

**TECHNICAL/PRODUCTION KPIs** 

4.6 km tunnel length

**30,000 m<sup>3</sup>** underwater excavations

7.22 m tunnel excavation diameter

#### SUSTAINABILITY KPIs

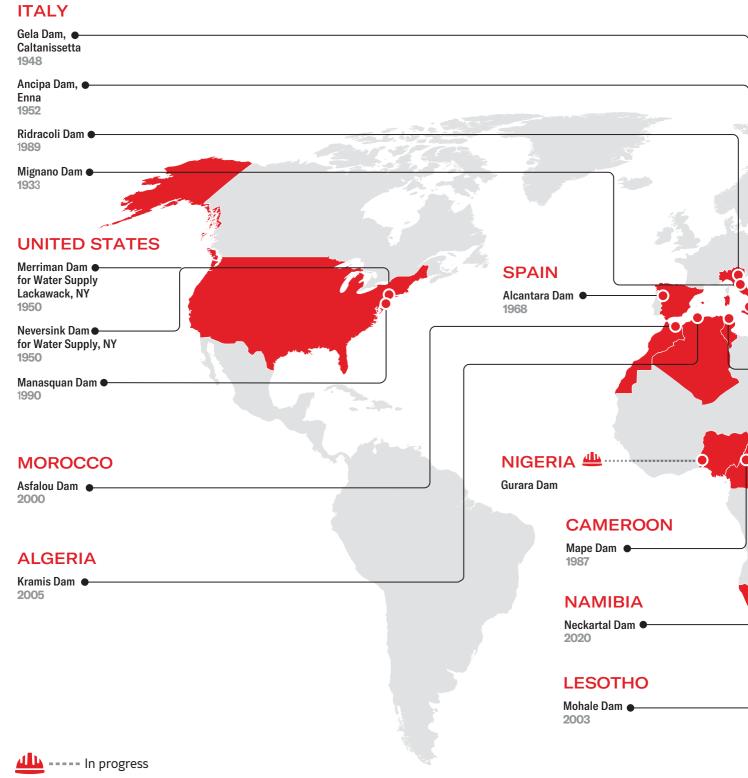
#### 90%

Southern Nevada's water comes from Lake Mead

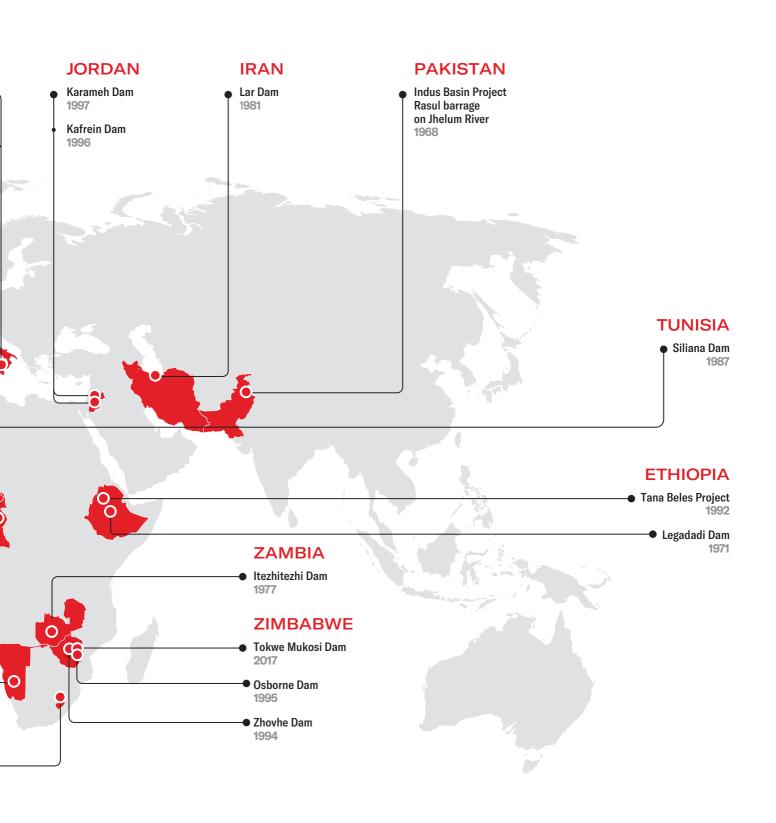
# 25,000,000

people in Nevada, Arizona, and California supplied by Lake Mead water

# BUSINESS MAIN IRRIGATION DAMS



xxxx Completion date





NAMIBIA

# NECKARTAL DAM

Namibia's largest dam to irrigate land for agricultural development

Located in the Karas region along the Fish River in the south of the country, the project is the first phase of the Neckartal Irrigation Scheme. Made from rollercompacted concrete (RCC), 78.5 metres high, 518 metres long and with a volume of 850,000 cubic metres, the Neckartal dam is aimed to harness water from the Fish River to produce energy and create a reservoir with a capacity of 857 million cubic metres, which will irrigate 5,000 hectares of land for the agricultural development of the area. The project included a crossing 13 km downstream of the dam, 360 metres long and 9 metres high, as well as a pumping station with corresponding intake structures. The water will flow through an 8.7 km steel pipe with a diameter of 1,100 mm to reach a reservoir with a capacity of 90,000 cubic metres, also part of the project. **TECHNICAL/PRODUCTION KPIs** 

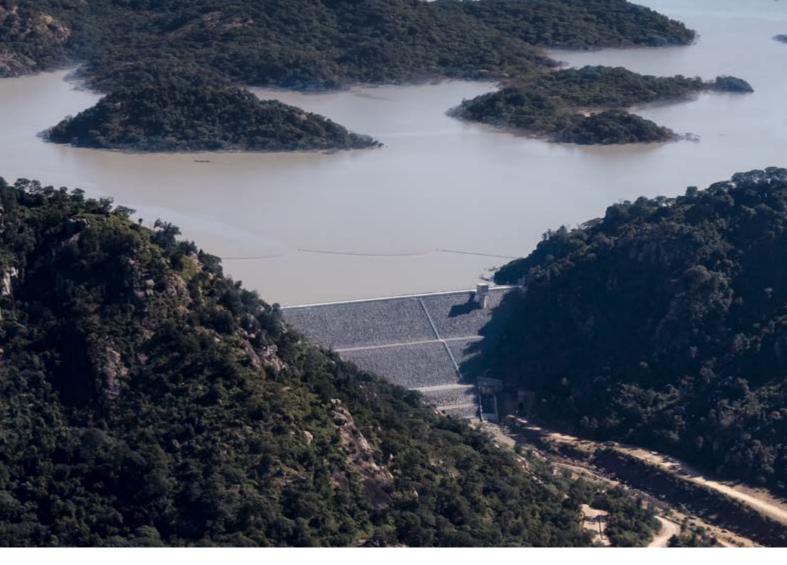
78.5 m dam height

850,000 m<sup>3</sup> dam volume

857,000,000 m<sup>3</sup> reservoir storage capacity

SUSTAINABILITY KPIs

**5,000 hectares** land irrigated for the agricultural development of the area



#### ZIMBABWE

# TOKWE MUKOSI DAM

#### The tallest dam in Zimbabwe

The dam, rising 90 m above its foundation, is the tallest in the country and it creates the largest artificial lake in Zimbabwe. It has a capacity of 1.8 billion cubic meters and the artificial basin is over 40 km in length. The dam, which will be mainly used for irrigation purposes, will irrigate approximately 25,000hectares of farmland, in the downstream areas, contributing to agricultural development and to the agro-food industry in one of the poorest areas of the country. The project involved the construction of a Concrete Face Rockfill Dam (CFRD). The intake structure comprises a 35-m tower fitted with grilles that directs the water to a 6 m diameter concrete lined tunnel excavated along the left abutment (350 m long) equipped with a regulating tower and two service gates. The water is released into the riverbed throughout two 2 m diameter steel pipelines. There are two morning glory spillways, near the left and right abutments, with a concrete lined outlet tunnel, 6 m in diameter and about 200 m long. Webuild introduced a dedicated Plunge Pool with the aim to increase and guarantee the safety and stability of the dam toe.

**TECHNICAL/PRODUCTION KPIs** 

**1.8 billion m<sup>3</sup>** reservoir storage capacity

1,390,505 m<sup>3</sup> main dam excavation

95.000 m<sup>3</sup> of concrete

SUSTAINABILITY KPIs

~25,000 hectares farmland irrigated

# BUSINESS

# GREEN BUILDINGS & OTHER

- $\rightarrow$  Civil and industrial Buildings
- $\rightarrow$  Stadiums
- $\rightarrow$  Hospitals
- $\rightarrow$  Airports
- → Energy Transition Projects



Green Buildings & Other: building the future sustainably. This is the vision of Webuild, a group which has spent years investing in environmentally responsible design to make cities everywhere more liveable. Faced with challenges such as growing urbanization and pollution, Webuild responds with civil, industrial, commercial, cultural, leisure and religious buildings designed to reduce their environmental footprint or facilitate the energy transition.

Webuild has constructed more than 200 healthcare facilities, over 80 airport infrastructures, and countless other "green" projects around the world. These are iconic projects which, in many cases, have contributed to the regeneration of their local areas, expertly combining aesthetics with engineering, functionality and innovation with sustainability.

Some of the Group's most notable flagship projects include the Stavros Niarchos Foundation Cultural Centre in Athens, the Al-Bayt Stadium outside Doha, the new ENI Headquarters in San Donato Milanese, the new Hospital in Venice-Mestre ("Ospedale dell'Angelo"), and the Kingdom Centre in Riyadh. These projects – often made possible thanks to partnerships with internationally renowned architecture firms – are guided by the most up-to-date sustainability criteria and stand out due to their innovative nature.

Adopting certification schemes defined by their green characteristics, such as LEED (Leadership in Energy and Environmental Design) – one of the most widely recognized sustainability assessment systems in the world – allows us to, for example, reduce the building's environmental footprint during construction by using raw materials with a low environmental impact and optimize production and logistical processes, as well as maximizing the building's environmental performance over the course of its service life, which translates to lower energy and water consumption and reduced emissions.

The environmental benefits of using eco-design and construction systems are tangible: a number of official studies show that on average, a green building requires between 15% and 40% less energy than a traditionally constructed counterpart, which helps to reduce the emission of climate changing gases and, consequently, its environmental impact.

# BUSINESS MAIN GREEN BUILDINGS PROJECTS & OTHER

ITALY	SWITZERLA	ND	
Milan Metro Line 4 - Stations (n.7 stations and n.1 depot)	United Nations 4	Le Bolle Residence, Agno	<u></u>
New Eni's Headquarters, Milan  2023			
Palazzo Lombardia, Milan  2006			3
Milan Expo Fair Centre in Rho-Pero 2005			
New Hospital			
in Venezia-Mestre ("Ospedale dell'Angelo") 2008			
New Auditorium,  Rome 2002	-		
New Hospital in Naples ("Ospedale Del Mare") 2015			
Afragola High-Speed  Railway Station 2017			
Monopoli-Fasano			
Amendola (Foggia) Air Base Hangars 2015			



xxxx Completion date

# POLAND

Waste-To-Energy Plants in Rzeszow, Bydgoszcz and Danzica

 John Paul II International Airport in Cracow-balice 2016

# GREECE

Stavros Niarchos
 Foundation Cultural Center,
 Athens
 2016

# QATAR

Doha Red Line
North Underground
Stations (n.7 stations)
2020

 Al Bayt Stadium 2020

# SAUDI ARABIA

Riyadh Metro Line 3 Stations (n.2 stations and n.1 depot)



Parc du Simplon,

 $\cap$ 

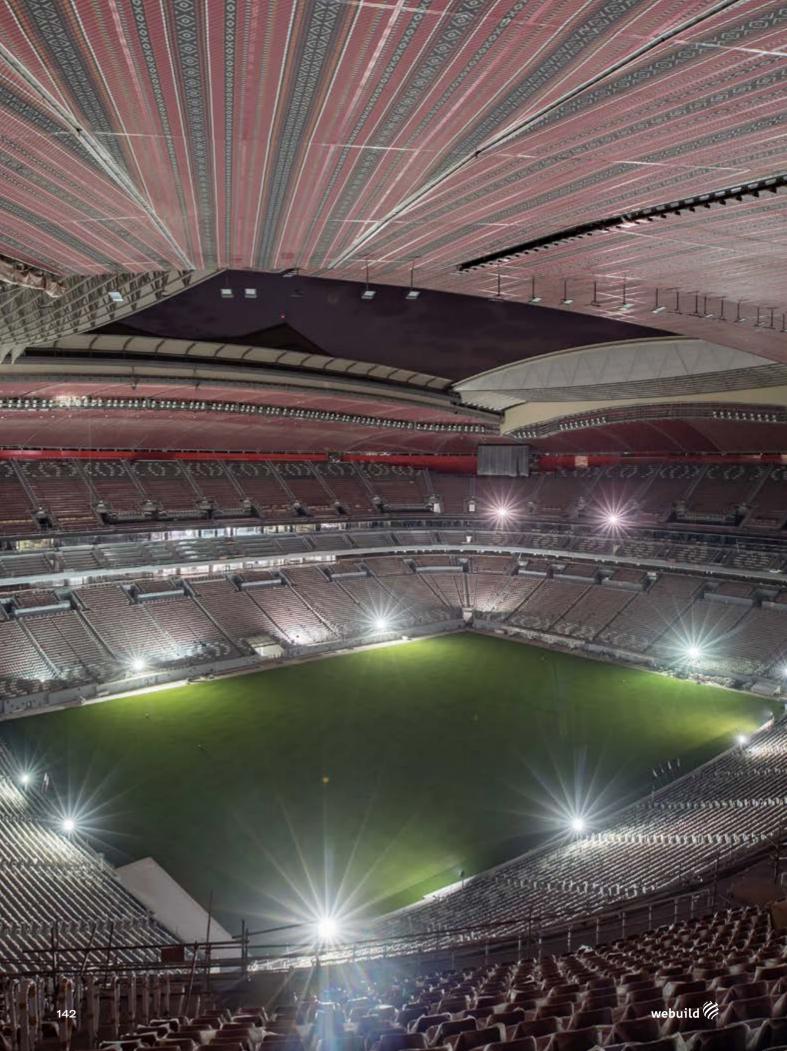
Lausanne

2022

Gucci Logistic Center,

Canton Ticino

2013



#### AL-BAYT STADIUM IN AL KHOR, DOHA

A hyper-technological and sustainable 'tent' in the middle of the desert, as well as one of the largest and most innovative sports facilities in the world

A tent in the desert that can accommodate 60,000 spectators: this was the vision that inspired the construction of the Al-Bayt Stadium, a hypertechnological structure that played host to the 2022 FIFA World Cup. Built 40 km north of Doha, it is one of the largest and most innovative sports facilities in the world, a point of reference for the industry in terms of the construction techniques used and its ability to reconcile the needs of sustainability, protecting the environment and preserving the local cultural heritage. Designed as a space for recreational and commercial activities, it resembles a Bedouin tent, a symbol of the country's culture of warmth and hospitality. Its characteristic roof prevents sound from leaking out of the stadium and amplifies the experience. Many of the solutions adopted, such as the installation of watersaving components, make it a paragon of sustainability. In 2020, it was awarded 2 GSAS certifications, each with a 5-star rating.

#### **TECHNICAL/PRODUCTION KPIs**

286,000 m<sup>3</sup> total volume of concrete

52,000 tons of concrete reinforcing steel

**30,000 tons** total steel used for the roof

#### SUSTAINABILITY KPIs

Use of low-impact building materials

Reduced energy consumption due to its tent-shaped design

Rated 'Class A' by GSAS (Global Sustainability Assessment System)







#### GREECE

#### STAVROS NIARCHOS FOUNDATION CULTURAL CENTRE, ATHENS

An ultra-modern and sustainable multifunctional centre, created thanks to a winning combination of engineering and technology

The Stavros Niarchos Foundation Cultural Centre, built based on a design by architect Renzo Piano and opened to the public in 2016, is an ultra-modern and sustainable multifunctional centre. The structure, which is home to both the Greek National Opera (33,000 m<sup>2</sup>) and the National Library (24,000 m<sup>2</sup>), has garnered numerous awards and was designed and built according to stringent sustainability principles to meet the requirements of the LEED Platinum certification. Built on a manmade hill on the seafront, just a stone's throw from the heart of Athens, the centre covers a total area of 230,000 m<sup>2</sup>, much of which is used as a sprawling park. Its characteristic feature is the Canopy, a masterpiece of architecture and engineering consisting of a 10,000 m<sup>2</sup> suspended shell that hangs majestically over the centre and, thanks to sophisticated technology, moves with the wind and temperature changes. The top surface of the Canopy is covered with photovoltaic panels, making the centre energy-independent.

TECHNICAL/PRODUCTION KPIs

**230,000 m<sup>2</sup>** total area

210,000 m<sup>2</sup> area used as a public park

**10,000 m<sup>2</sup>** surface area of the Canopy

#### SUSTAINABILITY KPIs

**5,560** photovoltaic panels

-40%

energy saved compared with similar structures

European Solar Prize 2017, for innovative solutions adopted to meet the building's energy needs



webuild 🧖

ITALY

#### NEW ENI HEADQUARTERS IN SAN DONATO MILANESE, MILAN

# An efficient, innovative and environmentally friendly project

Built based on a design by US firm Morphosis Architects, the complex spans a total area of 65,000m<sup>2</sup> and consists of three office buildings, organised around a central square and linked together by sky bridges. The buildings feature full-height windows which overlook the common areas. The square features a manmade lake. The design of the façade is inspired by the Earth, as visible in the optical effect of the micro-perforated metal sheeting used for the external cladding, as well as the layered shapes of the buildings that seem to emerge from the site. The top floors offer flexibility of use, capitalising on the influx of natural light and maximising resources for the building's heating and cooling systems. The complex was designed and built to meet innovative sustainability criteria in line with LEED Gold requirements. The use of BIM technology allowed for an extremely detailed design at the architectural, structural and plant engineering levels.

#### TECHNICAL/PRODUCTION KPIs

65,000 m<sup>2</sup> total gross surface area

11,684 m<sup>2</sup>

green areas

#### 650 tons

of structural steel used

#### SUSTAINABILITY KPIs

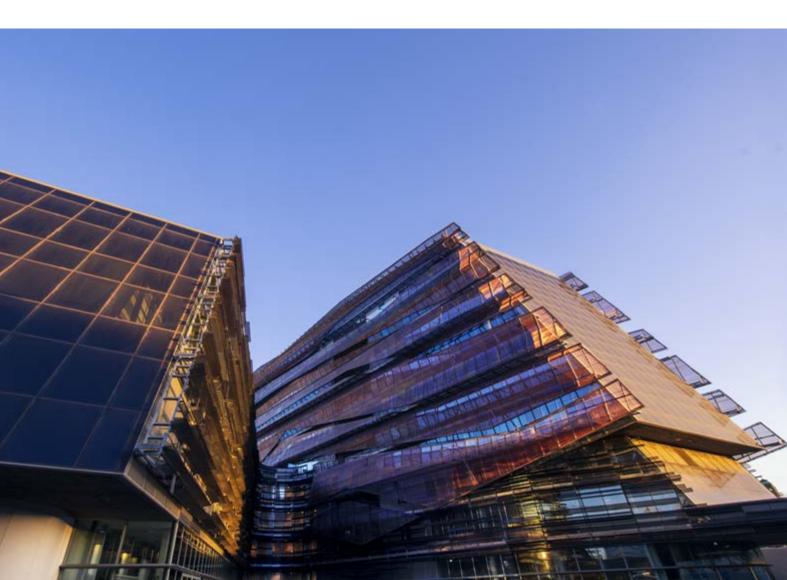
#### 3,000

people involved (direct employees and subcontractors) in all aspects of production

#### ~400

companies involved

#### **LEED Gold-certified**





#### SWITZERLAND

#### PALAIS DES NATIONS, GENEVA

A complex renovation project geared towards making the historical United Nations offices in Geneva safer and more sustainable

The Palace of Nations (Palais des Nations) is the historical Geneva home of the United Nations, and the largest in Europe by surface area (100,000 m<sup>2</sup>). It is one of the most active diplomatic centres in the world, hosting around 12,000 meetings, 75,000 delegates and 100,000 visitors each year, and is located in Ariana Park, which is one of the largest parks in the city. CSC Costruzioni (Webuild Group) is carrying out part of the Strategic Heritage Plan, a renovation scheme approved by the United Nations General Assembly which aims to make historical buildings built before 1950 safer and more sustainable. The project involves a full and extensive renovation, including adapting the site's safety, security and accessibility features, modernising its conference support systems, optimising the spaces and improving its energy efficiency. The work is being performed with no interruptions to the centre's day-to-day operations and with full respect for the historical heritage of the building.

**TECHNICAL/PRODUCTION KPIs** 

100,000 m<sup>2</sup> total surface area of the complex

1,000 km length of cables laid

#### SUSTAINABILITY KPIs

60% local staff employed

#### 40%

women employed in staff positions

#### 100%

energy from renewable sources



#### SWITZERLAND

#### SH2 DATA CENTER DI GLAND

One of the largest and most advanced colocation facilities in Switzerland, powered by 100% renewable energy

SH2 is one of the largest and most advanced colocation facilities in Switzerland, currently under construction in Gland, Vaud. It will provide unparalleled reliability, energy efficiency and space, and will complete a network of data centres that also includes the SH1, SH3 and SH4 centres. SH2 will have an IT capacity of 18 MW, with high energy efficiency and a PUE (Power Usage Effectiveness) ratio of between 1.3 and 1.8. A dual power supply from the grid will provide greater reliability and redundancy. The data rooms will be cooled by CRAC (Computer Room Air Conditioning) units powered by chilled water. Thanks to its proximity to the Lausanne-Geneva railway line, it will also offer low latency in communications with Geneva and Zurich. Once the works are complete, it will have a total capacity of 40 MW, with 14,000 m<sup>2</sup> of technical space and 9,000 m<sup>2</sup> of office space. The contract is being executed by CSC Costruzioni (Webuild Group).

**TECHNICAL/PRODUCTION KPIs** 

**18 MW** IT capacity

**14,000 m<sup>2</sup>** surface area of technical space

**9,000 m<sup>2</sup>** surface area of office space

#### SUSTAINABILITY KPIs

1.3-1.8

PUE (Power Usage Effectiveness) ratio



#### SWITZERLAND

#### GUCCI LOGISTICS CENTRE IN SANT'ANTONINO (TICINO)

An eco-compatible building designed and built to meet the most advanced LEED certification standards

The Gucci Logistics Centre in Sant'Antonino, built by CSC Costruzioni (Webuild Group), is a distribution and storage centre dedicated to the world of luxury goods, spread over an area of about 40,000m<sup>2</sup>. Completed in 2013, the centre was designed to meet the most advanced LEED criteria and is LEED Platinum-certified, thanks to the energy efficiency resulting from the systems and materials used in its construction, which are essentially low-emission and locally sourced, thus reducing its environmental footprint. The complex was designed to be well-integrated into its urban and natural surroundings.

**TECHNICAL/PRODUCTION KPIs** 

40,000 m<sup>2</sup> total surface area

5

floors (including one basement level)

20 loading bays

SUSTAINABILITY KPIs

**LEED Platinum-certified** 

**30%** proportion of green areas

80% proportion of local subcontractors



#### SAUDI ARABIA

#### RIYADH DIRIYAH SQUARE – PACKAGE 2 SUPER-BASEMENT WORKS

The focal point of the urban development programme intended to establish the future 'Beverly Hills' of Riyadh

The project is part of the Diriyah Gate urban development programme to enhance Diriyah, a UNESCO site, as per the objectives of Saudi Vision 2030: diversifying the economy, creating jobs, and launching high-impact projects to improve the country's visibility on the global stage. Diriyah Gate project will lead to the establishment of a neighbourhood along the Western Ring Road, to the north-west of Riyadh, which will cover an area of 7km<sup>2</sup> with a Najdi architectural style, so as to strike a balance between the need for development and the desire to preserve the site's historical identity. The whole area will be pedestrian-only, featuring squares, courtyards, souks and bazaars. The Webuild contract is the beating heart of the entire Diriyah Gate development. It involves the construction of a state-of-the-art 10,500-space underground car park spread over three levels, including an intricate network of roads and over 2 km of tunnels. TECHNICAL/PRODUCTION KPIs

~1,000,000 m<sup>2</sup> total built-up area

700,000 m<sup>2</sup> of concrete used (overall estimate)

90,000 tons of reinforced steel (overall estimate)

#### SUSTAINABILITY KPIs

#### 9,000

estimated workers employed (direct employees and subcontractors) for construction

13,650 potential users (estimate)



#### ITALY

#### NEW MONOPOLI-FASANO HOSPITAL ('SOUTH-EAST BARI AREAHOSPITAL')

A new healthcare facility of excellence for Southern Italy, built according to eco-design principles

The New Monopoli-Fasano Hospital is an innovative, sustainable project that fully respects the local area's cultural heritage. Designed based on the concept of a 'hospital in a park', the building is set in an olive grove and includes 299 beds and nine operating theatres, offering all the main medical and surgical disciplines, all intensive care, outpatient and additional diagnostic services, an emergency department, and a car park with over 740 spaces. Sustainable technologies and innovative materials are predominant elements of the project. The structure fulfils a range of bioclimatic design criteria (ventilated walls, storage and conversion of solar energy and rainwater, and more). Eco-friendly and locally sourced materials were preferred. System design was inspired by proven energy-saving criteria and a high degree of reliability to ensure the continuity, flexibility and safety of the services. **TECHNICAL/PRODUCTION KPIs** 

**178,000 m<sup>2</sup>** total project area

**55,000 m<sup>3</sup>** concrete

6.500 tons steel

SUSTAINABILITY KPIs

**915 kWp** capacity of the photovoltaic system

260,000 potential users

~200 centuries-old trees replanted on-site





#### **ITALY**

#### PALAZZO LOMBARDIA, MILAN

Awarded 'Best Tall Building in Europe' in 2012 thanks to its ability to combine design, innovation and sustainability

Palazzo Lombardia in Milan is the headquarters of the regional government. Designed to streamline the offices of the administrative system, it was built with a view to blending quality and aesthetic beauty with functionality and energy savings. It features curved 9-storey buildings and a 39-storey central tower reaching 161 m high, with spaces open to the public for hosting cultural, representational and recreational activities, a conference centre, archives, libraries, assorted facilities, and thousands of square metres of green space, including rooftop gardens. The complex also includes a helipad for helicopters with a maximum load capacity of 6.4 tonnes. The building incorporates a whole host of innovative solutions for the operation of its various energy and heating systems. In 2012, its ability to combine design, innovation and environmental sustainability earned it the Best Tall Building in Europe award, presented by the Chicago-based Council on Tall Buildings and Urban Habitat. TECHNICAL/PRODUCTION KPIs

94,000 m<sup>3</sup> concrete

**19,000 tons** steel

272,000 m<sup>3</sup> open-air excavations

SUSTAINABILITY KPIs

6,000 m<sup>2</sup> green areas

100% groundwater-based heating

Emissions reduced by means of photovoltaic systems on façades and rooves



#### <u>ITALY</u>

#### SAN SIRO STADIUM, MILAN

The 85,000 all-seated "Football Temple"

Milan's San Siro, currently Italy's largest stadium, is an architectural masterpiece, with its red beams and seemingly suspended roof that give it its distinctive look. Named in 1980 in memory of the footballer Giuseppe Meazza, the San Siro stadium is known by football fans as the "Football Temple". Its construction dates back to 1925, with the construction of the first 4 straight grandstands. In 1935, a first expansion operation brought its capacity from 35,000 to 55,000 seats. In 1955, a new structural intervention brought the stadium's capacity to 100,000 seats, later reduced to 85,000 for safety reasons. Webuild has carried out its last major renovation, a radical transformation carried out in 2 years in anticipation of the 1990 FIFA World Cup. The structure currently has 85,000 seats, all seated, featuring a transparent roof that can be extended to the entire stadium (excluding the playing field).

**TECHNICAL/PRODUCTION KPIs** 

**13,400 tons** metal carpentry

6,000 tons concrete reinforcing steel

SUSTAINABILITY KPIs

85,000 seats (capacity)



#### ITALY

#### THE "STADIO OLIMPICO", ROME

A reference sports facility on the European scene

Completed in 1953, the Stadio Olimpico is the Italian capital's stadium. For this structure, Webuild oversaw a substantial renovation carried out in just under 3 years for the 1990 World Cup. The stadium has been totally rebuilt in reinforced concrete, its curves brought closer to the field, and the entire work has been covered with a white tensile structure. When works were completed, in 1990, the New Stadio Olimpico Stadium was modern, functional and impressive in design, with a capacity that increased from 54,000 to over 82,000 spectators, making it one of the world's top 15 stadiums by capacity. Today, the Stadio Olimpico is a reference sports facility on the European scene, not only for football, but also for athletics and rugby, the latter sport choosing it as the reference stadium for the Six Nations competition, the most prestigious rugby trophy in the Old Continent.

**TECHNICAL/PRODUCTION KPIs** 

**5,700 tons** steel

28,000 m<sup>3</sup> precast concrete

**42,000 m<sup>2</sup>** total surface area of the new roof

SUSTAINABILITY KPIs

+82,000 seats maximum capacity

# CHAPTER 06



#### INNOVATION

# OUR KEY FOR THE FUTURE

V V V V V V V V

- Constant commitment to ensuring work safety and reducing risks in the construction sites
- Overcoming the most complex project challenges with innovative solutions
- Adoption of sustainable practices to minimize the environmental impact
- Optimization of core processes and consolidation of operational efficiency
- Open Innovation and strategic collaborations with start-ups, universities and partners of the global supply chain

In a context featuring unmatched technological and environmental challenges, Webuild uses innovation as a strategic pillar. The Group's commitment for innovation reflects on constant research and in developing solutions aimed at optimizing timings and costs, strengthening work safety, while also reducing the environmental impact. Investments aimed at R&D ensure a sustainable footprint, considering the environmental, social and engineering related needs, also allowing to develop technological, contractual and management related solutions of high elevated value, to accompany clients towards an evermore sustainable future.

This way each construction site becomes a experimental lab, with techniques and technologies specific to the projects, contributing to technological advancement and the competitiveness of the entire sector. Webuild Innovations was established in 2022. This totally R&D dedicated hub confirms the Group's long-term vision.

#### THE GLOBAL SUPPLY CHAIN: A PREMIUM NETWORK

Webuild is supported by a global ecosystem with over 17,500 partners from over 80 different nations. The Group, through computerized platforms and dedicated Supplier Meetings, promotes transparency and strategic collaborations to favour the development of innovative solutions. This way, suppliers become active partners, contributing with their know-how and their skills to identifying innovative scalable solutions for the entire sector. The Group invests in Open Innovation and promotes its innovation strategy through interactions with start-ups and universities.

#### TECHNOLOGIES FOR WORK SAFETY

Innovation is also key when it comes to health and safety. The Group, in its construction sites and production processes, favours the adoption of new technologies and devices, even from other sectors, to grow in awareness in relation to risks and how to strengthen work safety. Integrated Smart Safety systems, which have already been used in the San Giorgio Bridge construction sites in Genoa, and in the Genoa-Milan high-speed railway ones, reduce work risks thanks to cutting-edge solutions with man-machine interaction, monitoring dangerous areas and managing suspended loads.

#### INNOVATIVE CONSTRUCTION TECHNIQUES

Webuild adopts Lean Construction principles to optimize processes, particularly planning and monitoring. With one of the largest TBM fleet in the world, approximately 60 TBMs, among the active ones, ones being assembled and ones that have to be ordered, of which 40 to be used in Italian projects\*, contributes to improving mechanized excavation techniques, with green high efficiency machines, capable of operating even in high pressure conditions and with high slopes. Innovative solutions applied to the tunnelling sector are also the Riser Concept, which was introduced in the Riachuelo Project in Argentina to reduce construction times and the environmental impact in building vertical shafts; the Roboplant factories, highly robotized plants that integrate innovation, safety, efficiency and circular economy, to produce pre-cast concrete segments to line tunnels; the Force-Activated Coupling System (FACS), an assembly system of the pre-cast concrete segments to strengthen the tightness

of the hydraulic tunnels for the Snowy 2.0 project in Australia. Webuild, for the very first in Italy, introduced hyperbaric excavation techniques for the Naples-Bari high-speed railway line, a best practice at a European level.

# WEM (WEBUILD EQUIPMENT & MACHINERY)

In 2024, Webuild launched the WEM project, based on circular economy principles and technological innovation, starting the first factory that refurbishes used TBMs, a unique one-of-a-kind circular economy model. The plat inaugurated a process that prolongs the life cycle of a TBM and other machinery, improving project sustainability and efficiency.

#### DIGITALIZATION

The Group's innovation strategy includes advanced digitalization processes and the development of innovative tools to ease the elaboration of big data, to make brief and detailed real-time outputs available. The Connected Webuild project transformed the Group's IT infrastructure into an integrated platform, through Big Data and Digital Twin instruments to enhance the company's know-how, Fleet Management for an advanced management of machinery, and the Procurement Tool to optimize supply relations through artificial intelligence and automation. Tools like the Tunnel WeView applied to the Snowy 2.0 project, using AI and IoT to assist managing production processes, allowing the monitoring of safety, environmental impact and operation processes, in real time, while optimizing project management.

<sup>\*</sup> Data updated as of December 2024

#### INNOVATIVE AND ECO-COMPATIBLE MATERIALS

The Group's research on materials aims at reducing costs and the environmental impact of the structures, while at the same time improving performance and efficiency. Just as has been done for concrete, for which the studies carried out by the Group allowed to create optimized mixes and advanced additives and to replace high-emission cement with equivalent materials with low carbon emission.

#### **ENERGY EFFICIENCY**

The Group invests many resources into innovating its high-energy-intensity processes, with specific projects, like hydroelectric plants of the Construction 4.0 type, capable of monitoring the electric parameters of construction sites and improving the energy performance, but also by replacing processes with high energy consumption with more ecological ones. Innovative solutions, like the high-capacity conveyor belt in Tajikistan for the automated transport of construction materials, allowing the reduction of consumption, emissions and safety related risks.

# OUR KEY NUMBERS

# >€177 mln

investments in innovation (2019-2024)

# >4,000

engineers committed to ideating, designing and implementing innovative solutions

# ~430

average annual employees involved in innovation and R&D activities (2019-2024)

# CHAPTER 07





OUR PEOPLE

# OUR MAIN ASSET

uild



webuild

Webuild

- Leadership and Development
- Health and Safety
- Inclusion and Diversity
- New Recruits and Professional Training

#### LEADERSHIP AND DEVELOPMENT

The Group promotes a culture of leadership with the aim of imbibing a sense of responsibility in every employee and cultivating the next generation of managers. By enabling people to grow, it fosters the necessary skills for the Group to meet its goals. The managerial skills and behaviors required to meet effectively the Group strategical targets are stated in the Group Leadership Framework, which represents a concrete guideline to refer to during daily work and a benchmark for Recruiting and Developing people, according to Company values.

Besides, the Group promotes its people's growth through specific development instruments, such as assessment activities, coaching and mentoring and training programs on leadership and managerial skills, such as its internal Global Managerial Academy, a training path, aiming at sustaining and promoting the development of resources in key roles or in growing positions in the whole Group also to build up a strong and consistent Succession Plan to guarantee the business continuity.

#### HEALTH AND SAFETY

Focus on occupational health and safety is one of Webuild's core values and part of our DNA. Starting from a clear commitment, the Group has implemented effective management and cultural change programs to ensure the protection and well-being of its employees, both office staff and workers on site. The employer and downstream (in line with the Organization Chart and the related proxy system) the managers, supervisors and workers ensure that the health and safety management measures are in place. Specialist teams support and oversee the implementation of the measures in each operating unit. Particular attention is given to employee training on specific duties and operating controls over work processes, performed either directly by the Group's employees or subcontractors' staff.

#### VALYOU – OUR HEALTH AND SAFETY WAY

The roll-out of the Safety Builders Program, launched in December 2017, and continuously implemented in all new projects, aims to encourage a strong corporate safety culture, based on strengthening leadership abilities at all management levels. A Safety Culture where everyone has the right and the responsibility to intervene, where there is no fear in speaking up. Speaking up is expected, both to correct unsafe behavior and to provide positive feedback on safe behaviour. It is part of Webuild's broader communication strategy, the "Valyou - Our Health and Safety Way" project, recognized in 2020 with Gold Award by **RoSPA** (Royal Society for the Prevention of Accidents). As an integral part of the "Valyou - Our Health and Safety Way", Webuild continues to promote its "Lifesaving Rules" a set of operating and management rules devised to integrate the cultural change process commenced with the Safety Builders Program and to encourage active involvement. From 2020 to 2024, over 2.8 million training hours on occupational safety were provided. The Company's main workplaces celebrate the World Day for Safety and Health at Work on 28<sup>th</sup> of April, starting from 2016 and in line with the International Labour Organisation (ILO).

#### SUSTAINABILITY AND SAFETY RELATED PERFORMANCE

In 2024, the Group restated its commitment to concretely facing global challenges defining, at the beginning of the year, its new ambitious goals. Innovation, health and safety, circular economy, digitalization and inclusion represent the pillars of the new ESG Plan, tracing a clear roadmap towards the future. Webuild, among its main results, is exceeding the set target for reducing the intensity of greenhouse gas emissions (scope 1&2), registering a reduction of 25% compared to the 2022 baseline, which is well over the -10% goal foreseen as of 2025. As of December 31, 2024, approximately 90% of the Group's construction backlog contributed to reaching the sustainable development goals (SDGs) set by the United Nations. 2024, saw over 250 million euros of investments destined to innovative and cleantech projects, in line with over 430 million euros foreseen by the end of 2025. In safety terms, in line with the Plan's targets, in 2024, the accident rate named LTIFR was reduced by 33% compared to the 2022 baseline. And important progresses can be seen in terms of inclusion, as the Group's female manager number has increased by 6%.

# VALYOU OUR HEALTH AND SAFETY WAY



#### SAFETY BUILDERS PROGRAM 2018–2024

- $\rightarrow$  66 projects involved
- $\rightarrow$  ~1,000 workshops and training sections
- $\rightarrow$  ~16,500 people involved
- $\rightarrow$  +61,000 training hours

#### valyOu Our Health and Safety Way

#### WORLD DAY FOR SAFETY AND HEALTH AT WORK 2016–2024

- $\rightarrow$  +71,800 participants
- $\rightarrow$  +257 worksites
- → Thousands of photos and videos

+800,000

# #1

among European peers based on 2023 LTIFR data hours of health and safety training in 2024



~16,500

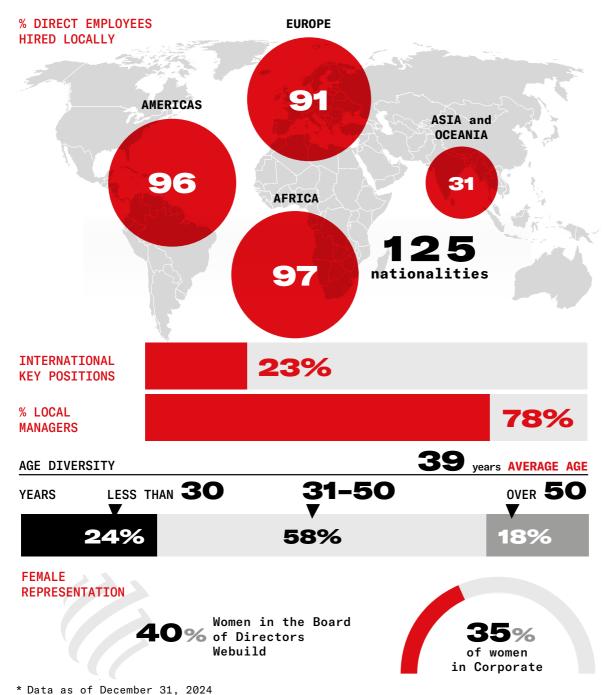
of the LTIFR index (2024 vs 2022)

employees involved in our Safety Builders programme



#### **DIVERSITY AND INCLUSION**

Webuild fosters an inclusive workplace, by promoting a culture which embraces and values all forms of diversity and recognizes diversity as a competitive advantage that enables the Group to grow, create synergies and better adapt to the challenges of the countries and geographies in which it operates. The Group conducts its business by providing a working environment where all employees feel included, valued and free to bring their different skills, experience and perspectives. We value and encourage diversity and inclusion of gender, age, culture and background through our *"Equality, Diversity and Inclusion Policy"* and throughout specific training, communication and development programs and initiatives.





#### **NEW HIRINGS**

Webuild continues to attract top managers and low-end managers and more generally, resources capable of strengthening the Group's multicultural and the inter-sector leadership, to lead the company through change. The search for the best talent and best practices on a global scale is what inspires the recruitment in our Group, alongside diversity and integrity as core values for the evaluation of candidates. The early career initiatives are a strategic tool to attract new talents, but also a way of spreading our values and the principles in which we believe. Webuild programmes offer the young a training and orientation opportunity and allows them to grow professionally through experiences that in many cases are difficult to reproduce, for the innovation content of the Group's ongoing projects. We collaborate with 35 of the best Italian and international universities, with various scholarship programmes centred on Diversity and Inclusion and on STEM and Innovation. In 2024, the Webuild Group hired 13,000 people globally, of which 50% are under 35. In Italy alone, approximately 2,900 people were hired, of which over 40% are under 35 and approximately 15% are engineers. These new hirings take the total number of people employed by the Group to more than 92,000 (both directly hired and third party personnel), of whom, over 18,000 in Italy.

#### TRAINING AS A DRIVER OF GROWTH FOR THE WHOLE SECTOR

To meet the growing quality workforce demand to implement the huge infrastructural development plans that the various governments are developing, side by side to the continuous training destined for the Group's employees, Webuild has implemented a substantial training programme for all new staff. Continuous training stays central, supported by consolidated tools like the Online Learning Academy, which has been active for a decade already, and the Global Managerial Academy, which was started in 2020 to consolidate the skills of key figures. Solely between 2022 and 2024, over 2.2 million training hours were provided to direct employees. "Cantiere Lavoro Italia" adds itself to these initiatives. This employment and training programme has three different types of schools on the Italian territory, with places active for training young people and the unemployed (Territorial School - "Scuola del territorio", with 13 locations active) and training and post-hiring schools for highly specialised construction site figures (three Trade Schools - "Scuole dei mestieri"), and for difficult-to-find technical employee type professions (Professions School - "Scuola delle Professioni", in 16 locations/Group construction sites). In 2024, the programme totalled approximately 130,000 total training hours, of which 14,000 supplied through training simulators that are highly innovative for the sector. Webuild also invests in professionals of the future, with projects like BuildUp and UniWelab, with over 34,000 training hours dedicated solely in 2024 to Italian high school students and university ones. Further orientation initiatives, and support to the young, like the "Premio Alberto Giovannini" and meetings with students, engaged over 1,300 young people, contributing to increasing the interest of people towards the infrastructure sector.

# CHAPTER 08



#### HERITAGE

# OUR HISTORY

Webuild's history dates back to 1906 with the establishment of two predecessors in Italy: Girola and Lodigiani. Along with the Salini family 30 years later, these two companies contributed to the development of the country's infrastructures backbone. Subsequent generations would see them join forces to become one of the leading infrastructure groups in the world, culminating in the creation of Salini Impregilo in 2014.

In 2011 Salini Costruttori began purchasing ordinary shares of Impregilo and in 2012, as a result of one of the most notable proxy battles in Europe, with the support of individual and institutional investors and activists, Salini designed 14/15 members of Impregilo Board of Directors. This was followed by a voluntary public tender offer promoted by Salini and concluded in April 2013, leading to the acquisition of Impregilo in 2014. The acquisition of Lane Construction later saw the group expand in the United States. More recently, in 2019, "Progetto Italia", the industrial plan aimed to consolidate the construction sector and create an even bigger group, with the entry of Astaldi, Todini, Cossi and Seli. The acquisition of Clough in Australia in 2023 has enabled the Group to reach a more ambitious level of scale, skills and technology.

The Group is currently on the market as one the major global groups of the infrastructure sector, capable of guiding development and innovation, collaborating with a company-ecosystem of the supply chain that is made up of 17,500 companies globally, a summary of the top premium excellences not solely at a national level.

# **OUR GROUP JOURNEY**

# 1906

Girola and Lodigiani create their respective companies

## 1929

Impresit - Imprese italiane all'estero - is established

## 1936

Pietro Salini starts up his own activity, Salini Costruttori

# 1956

Impresit, Girola, Lodigiani and Torno work together to build Kariba Dam

## 1959

Cogefar - Costruzion Generali Farsura S.p.A. - is established

# 1960

Impregilo S.p.A. (Impresit - Girola -Lodigiani) is established

# 1982

100% of the American company S.A.Healy is bought

# 1989

Cogefar Impresit S.p.A is born from the merger between Cogefar S.p.A. and Impresit S.p.A.

## 1991

Salini Impregilo acquires CSC Construction

# 1994

Impregilo S.p.A. is born from the merger among Cogefar Impresit, Girola, Lodigiani and Impresit Girola Lodigiani

# 1998

Impredilo S.p.A. acquires Fisia S.p.A

## 2009

95

1970

Salini Costruttori acquires Todini S.p.A.

## 2011

Salini Costruttori began purchasing ordinary shares or Impredilo

# 2014

Salini moreailo Group is born from the merger between the two companies

# 2016

Salini Impregilo acquires 100% of Lane Construction

## 2019

Progetto Italia is announced to launch one of the largest international construction groups. Salini Impregilo starts acquisition of Cossi and Seli

# 2020

Salini Impregilo becomes Webuild

# 2021

Webuild completes the acquisition of Astaldi

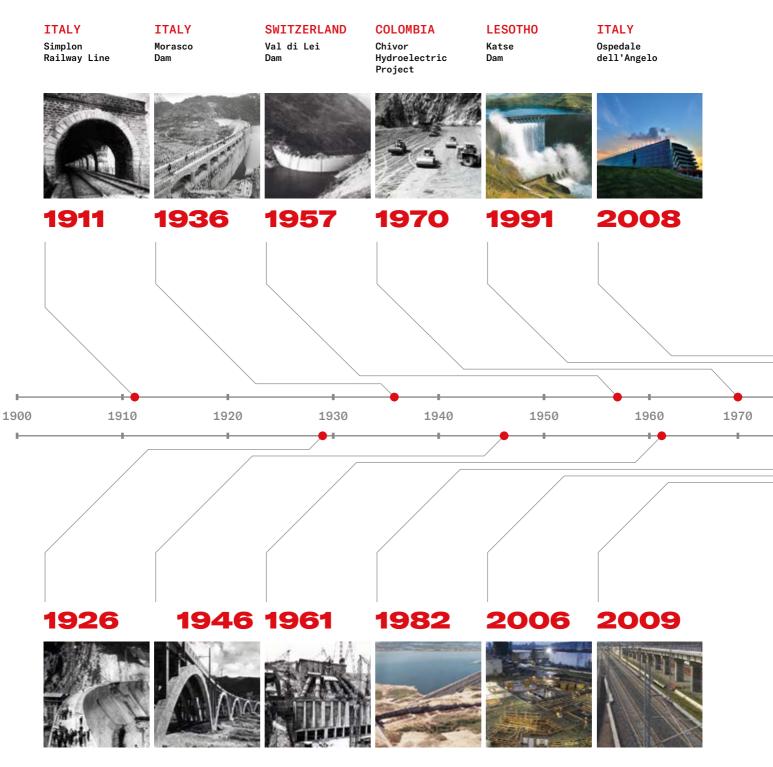
# 2023

Webuild completes acquisition of Clough assets

# 2024

Strengthening of integrated management of subsidiaries with focus on Group's strategic growth

### HERITAGE MAIN COMPLETED PROJECTS



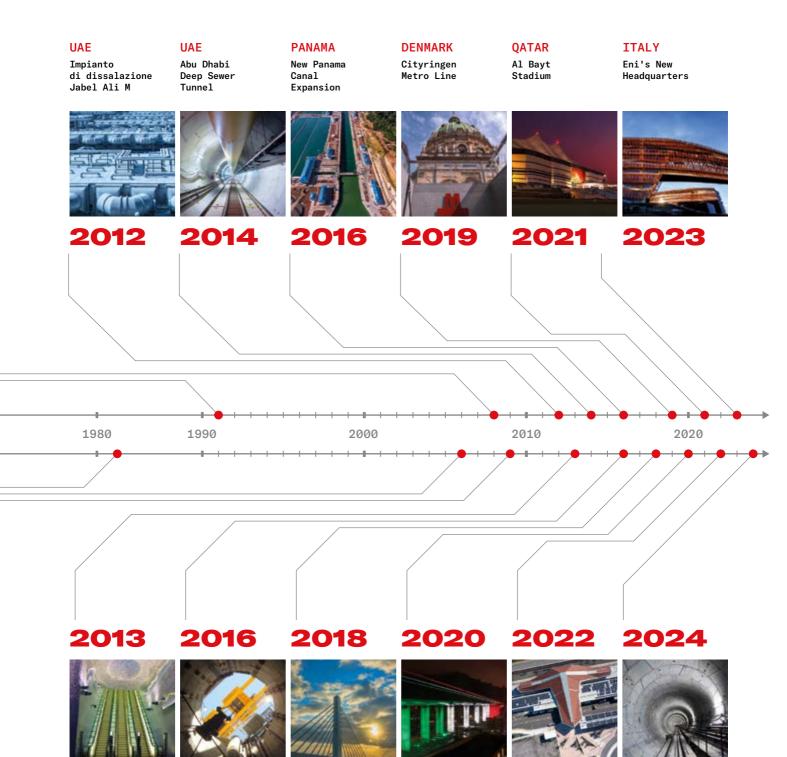
ITALY Mignano Dam ITALY Viaduct of Recco GHANA Akosombo Hydroelectric Plant CANADA

James Bay Project La Grande River Dam and Plant U.S. Portland West Side CSO Tunnel Project

Turin-Milan High Speed Railway

ITALY





ITALY Naples Underground Line 1 **U.S.** Lake Mead Intake 3 Hydraulic Tunnel

AUSTRALIA Sydney Metro Northwest **ITALY** Ponte Genova San Giorgio AUSTRALIA Forrestfield Airport Link

Perth

IA IT eld Mil .nk Lir

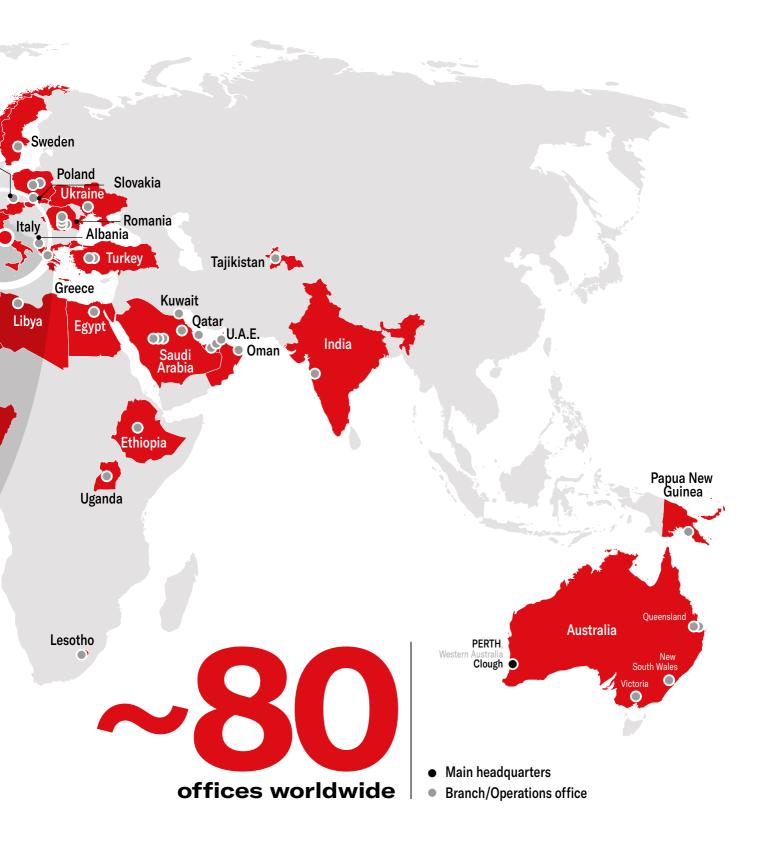
ITALY Milan Metro, Line 4

# CHAPTER 09

# webuild

# WEBUILD WORLDWIDE GLOBAL FOOTPRINT





#### WEBUILD S.P.A.

www.webuildgroup.com www.webuildvalue.com

#### Project coordination

Webuild Corporate Identity, Communication and Institutional Affairs

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