

# COMPANY PROFILE

1H 2024

webuild 



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webuild

# 01

## GROUP



**GROUP**

# WHO WE ARE





## Global player in the construction of large complex infrastructures, leader in the water sector, leading Italian contractor, among the 10 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, continuously delivering results in an uncertain world.

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 regularly meetings and communications about its activities.

Our recent integration with companies like Clough, Astaldi, Seli Overseas, Cossi and Lane gives us a sharper competitive edge on international markets as a result of the new skills they bring to the group thereby enabling it to achieve more ambitious goals. 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.

# Sustainable Mobility

- Metros
- High Speed Railways
- Railways
- Roads & Motorways
- Bridges & Viaducts
- Ports & Sea works



# Clean Hydro Energy

- Hydroelectric Dams & Plants
- Pumped Storage



# Clean Water

- Desalination & Water Treatment
- Wastewater Management Plants
- Hydraulic works
- Irrigation Dams



# Green Buildings & Other

- Civil and Industrial Buildings
- Stadiums
- Hospitals
- Airports
- Energy Transition Projects







02

KEY FIGURES

## Key Figures\*

# €10 bn

revenues in 2023

---

# ≈120

years of engineering and construction

---

# ≈90,000

average direct and indirect global workforce\*

---

# +110

nationalities

---

---

# €65 bn

total backlog\*

---

# ≈€56 bn

construction backlog\*

---

# >95%

percentage of new orders, including variation orders and best offers, in key markets with low-risk profiles\*

---

# >90%

of projects in construction backlog contribute to SDGs advancement\*

---







03

COMMITMENT

**COMMITMENT**

# OUR PLEDGE TO BUILD A MORE SUSTAINABLE FUTURE



Our rail, metro and light rail transit lines move millions of people every year, eliminating the need for cars and buses that increase pollution as well as congestion on roads and highways.

Webuild's Sustainability Strategy is embedded in the Group's business model and strategy and is underpinned by two key pillars: its contribution to global challenges and its unceasing commitment to act responsibly.

As signatory of the Global Compact, Webuild strives to play its part in supporting the global effort to reach by 2030 the Sustainable Development Goals (SDGs) set by the United Nations.

The group's pledge to work towards a more sustainable, low carbon future is reflected in its business divisions: Sustainable Mobility, Clean Water, Clean Hydro Energy, and Green Buildings & Other.

Our rail, metro and light rail transit lines move millions of people every year, eliminating the need for polluting cars and buses that increase congestion on roads and highways. Our hydroelectric dams produce energy without emitting harmful emissions. Our desalination and treatment plants can provide potable water where it is in scarce supply, and sustainable waste water treatment plants for environmental protection and pollution decrease.

The bridges and buildings we erect house the latest in sustainable technology, promoting a strong Health & Safety culture worldwide.

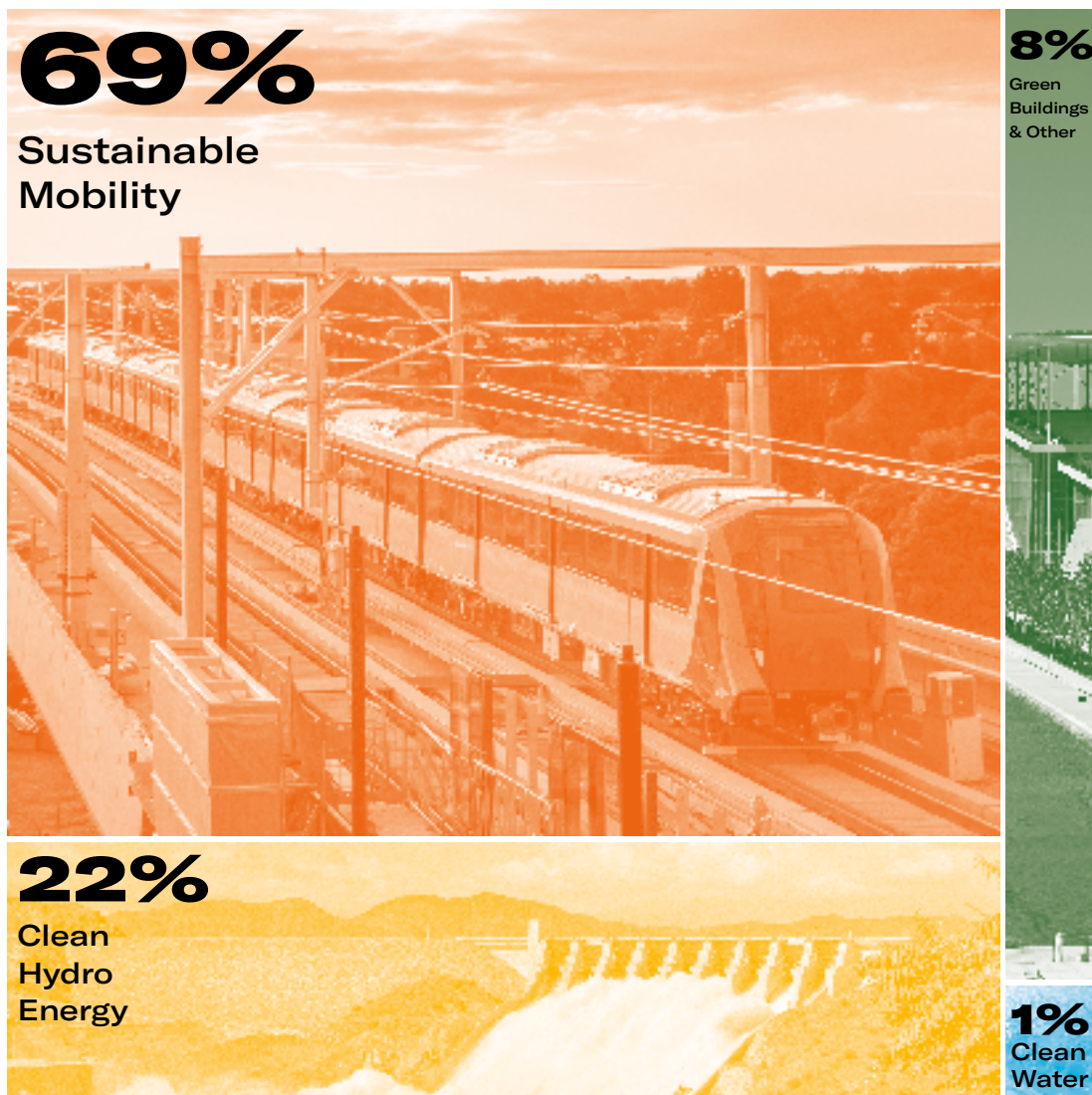
As of 30 June 2024, over 90% of our construction backlog came from projects that contribute to the achievement of some of the most prominent UN SDGs.

# Our contribution to the UN SDGs\*

(UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS)

# >90%

Construction backlog from projects that contribute to the achievement of the SDGs

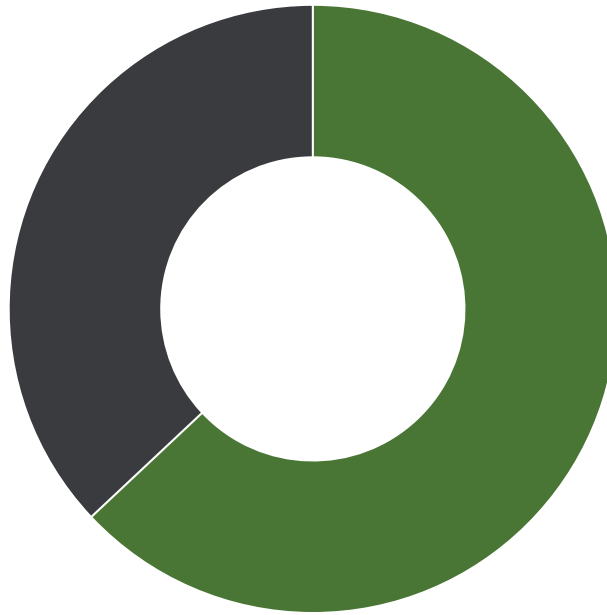


\* 1H 2024 unless otherwise indicated

# Our contribution to the fight against climate change

**63%**

Revenue eligible to the EU “green” Taxonomy



**≈93 million people worldwide** with the best access to water, energy, mobility and public utility infrastructures thanks to the Group’s projects currently being built



**-67% GHG emissions**

Greenhouse gas emission intensity scope 1&2 (2023 vs 2017) \*\*



\* FY2023  
 \*\* Scope 1&2 indicate CO<sub>2</sub> emissions coming from the consumption of fuels (scope 1) and electricity (scope 2)



# 04

## STRENGTHS



## STRENGTHS

# OUR WAY OF DOING BETTER

### 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.

### 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 the best balance between available resources and risk/reward profile;



- Strict selection of partners/suppliers of high quality;
- Rigorous commercial strategy and target projects selection: re-engineered bidding strategy with a 360° analysis for each selected project.

## Solid financial structure

- Highly liquid balance sheet, with great attention to operating profitability and cash generation;
- Low net debt/equity ratio, efficient use of capital;
- Focus on maintaining adequate financial leverage for Group strategy for organic and acquisition-led growth.

## Responsible behaviour: robust ESG standards

- Strong set of ethical principles: integrity, correctness, transparency, sustainability;
- Framework of policies and governance systems compliant with the highest standards;
- Rules and procedures to safeguards people, environment and society at large;
- Clear and transparent communication towards different stakeholders;
- Climate action and circular economy: robust framework for reducing greenhouse gas emissions and supporting circular economy
- Labour rights protection and promotion of safe and secure working environments for all workers.

## Significant geographical diversification

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

## Efficient organization, change management, innovation

- 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 (cost, safety, quality, time of execution and environmental footprint).

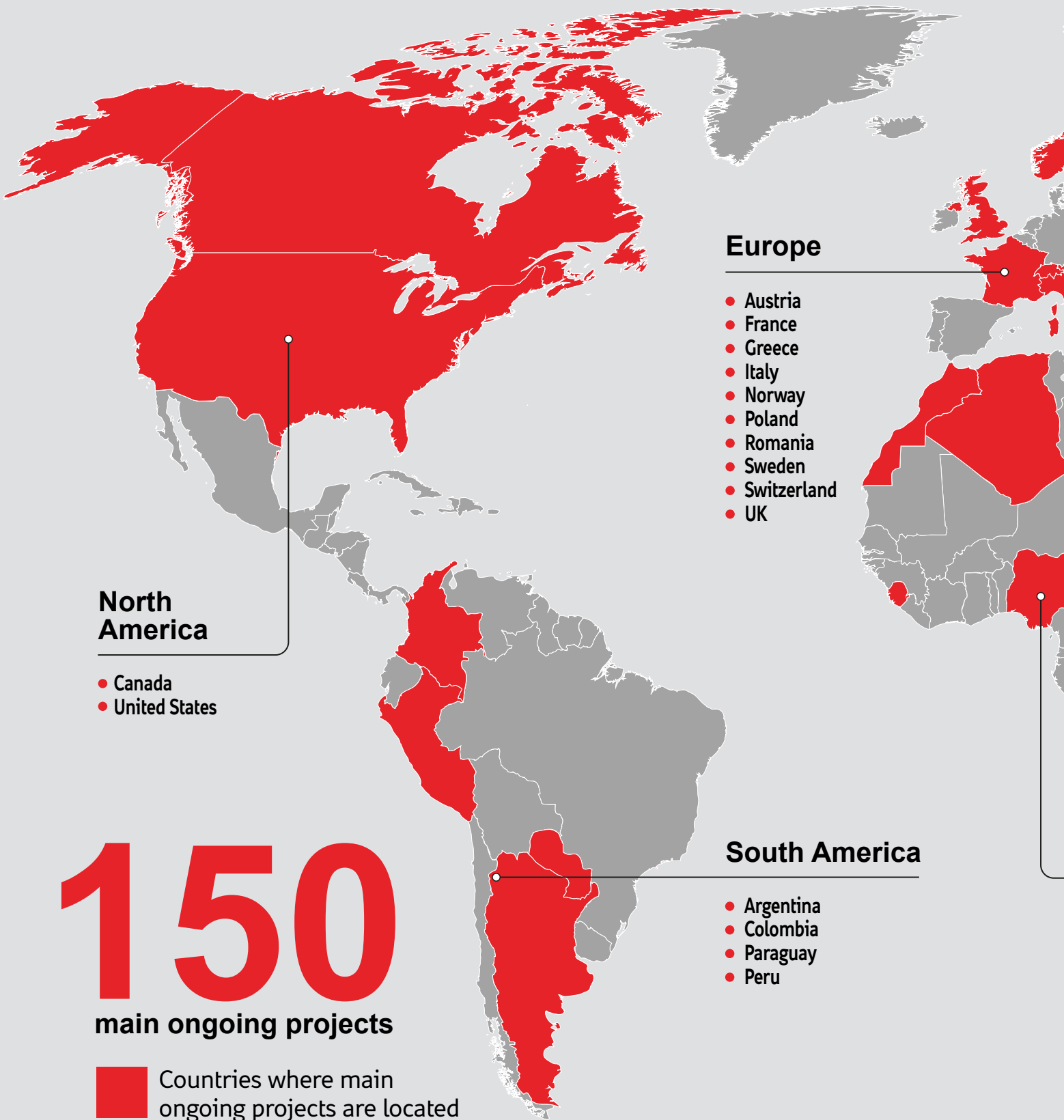


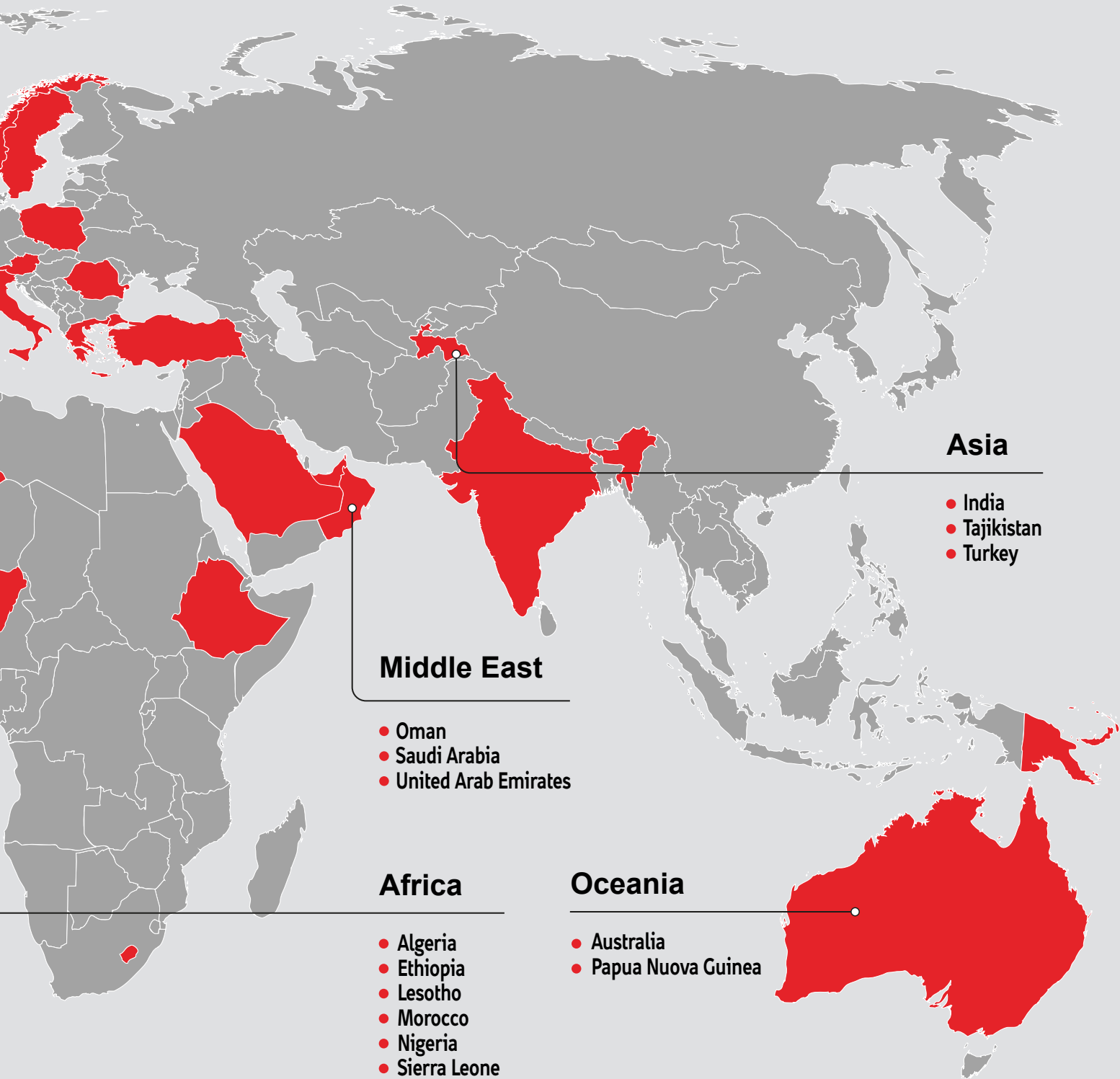
A high-angle photograph of a construction worker on a high-rise building. The worker is wearing a white hard hat, a red t-shirt, and a bright yellow safety vest with reflective stripes. They are secured by ropes and harnesses, appearing to be working on the exterior facade. The building's structure is a complex grid of steel beams and concrete slabs, with many windows visible. The scene is brightly lit, suggesting a sunny day. The overall composition is dynamic, with strong geometric lines and a sense of height and scale.

# 05

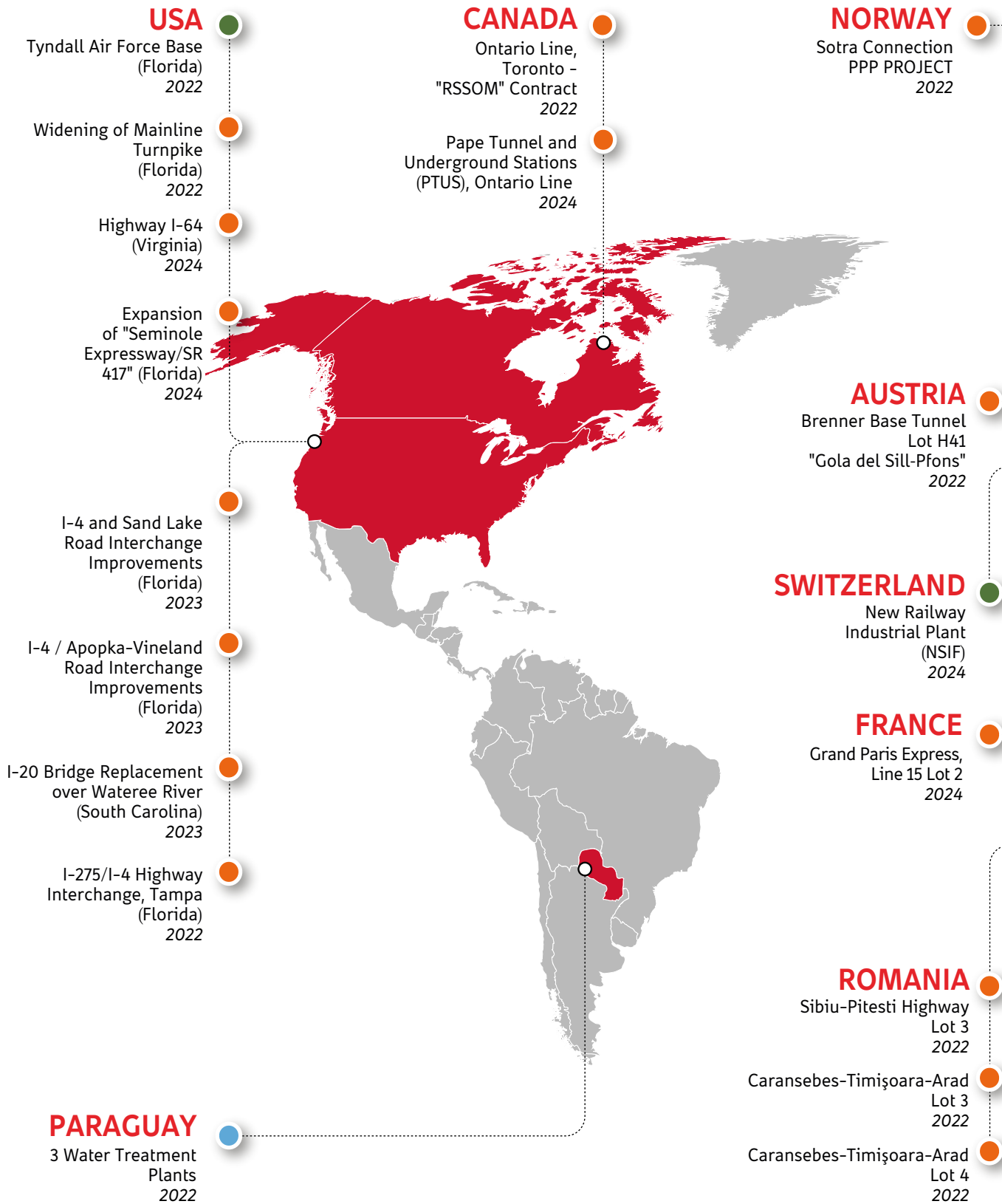
## FOOTPRINT

# Global footprint

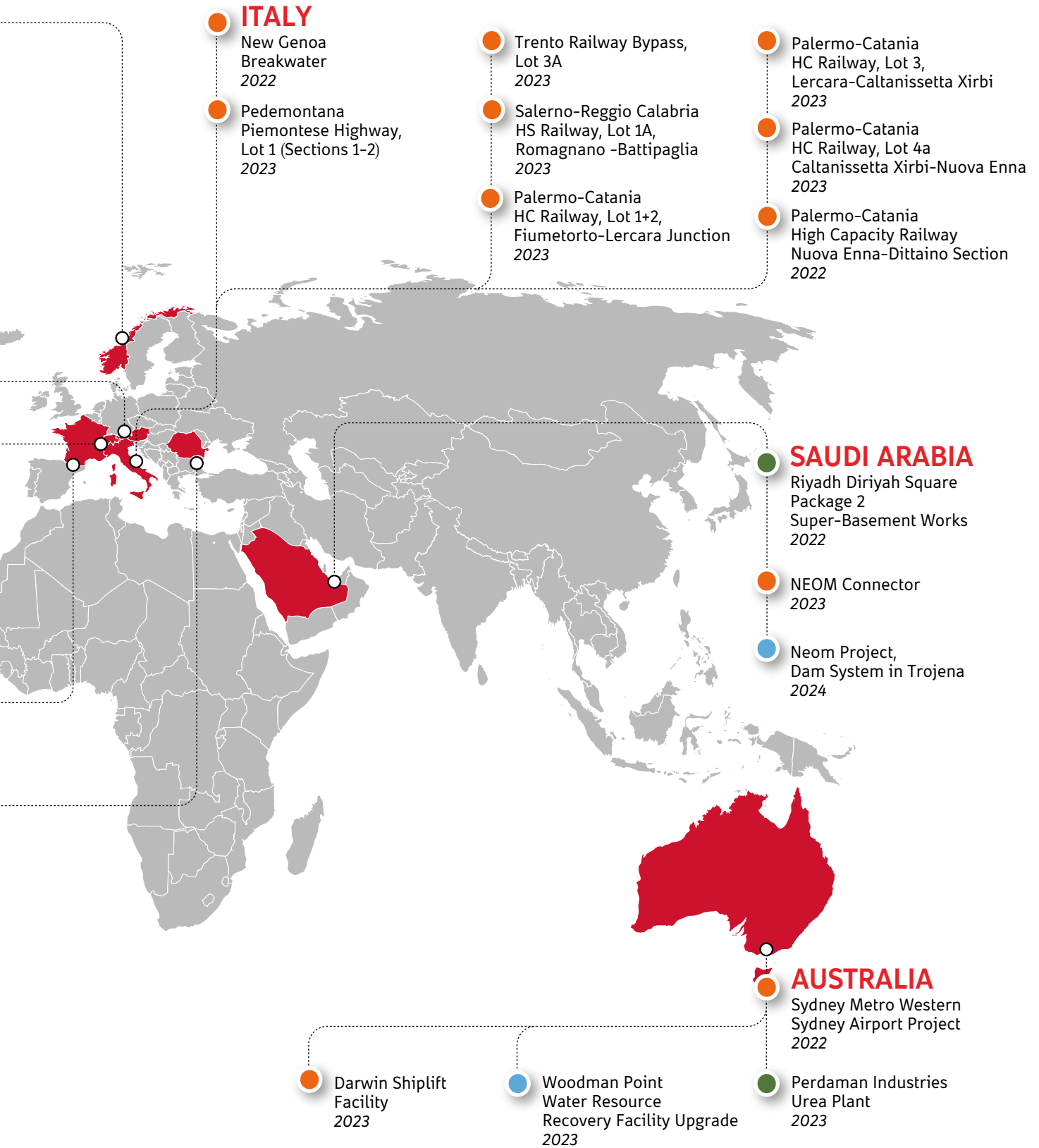




# Main new contracts 2022 - 1H 2024



- Sustainable Mobility
- Clean Hydro Energy
- Clean Water
- Green Buildings & Other





webuild

web





# 06

Build  
**BUSINESS**

**BUSINESS**

# WHAT WE DO

Track record\*

---

**14,140 km**

of railways and metros

---

**1,020 km**

of bridges and viaducts

---

**313**

dams and hydroelectric plants



---

**3,408 km**

of tunnels

---

**82,533 km**

of roads and motorways

---

**52,900 MW**

of installed capacity

**BUSINESS**

# SUSTAINABLE MOBILITY



- Metros
- High Speed Railways
- Railways
- Roads & Motorways
- Bridges & Viaducts
- Ports & Sea works

The sustainable mobility sector is one of the most promising business areas. 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 180 cities, transporting more than 50 billion people a year and keeping the equivalent of 133 million vehicles off the roads each day.

The metro projects under construction alone will allow the fast, efficient and sustainable transportation of roughly 5.3 million people a day on state-of-the-art infrastructure, avoiding emissions of around 3 million tonnes of CO<sub>2</sub> a year. The high-speed railway projects will shorten travel times by an average of

50%, providing around 37 million people with safe, rapid and low-carbon services one ninth of the most efficient aircraft. The ongoing railway projects will lead to an annual reduction in emissions of about 9.3 million tonnes of CO<sub>2</sub>.

Road infrastructure works will continue to be fundamental to move goods and people both in the developed economies (where the focus is mainly on modernisation and traffic decongestion) and low-income countries (where around one billion people still lack access to an all-weather road).

# Main metros

## Canada

- Montreal Line 1  
1975
- Hurontario Light Rail Transit Project

## France

- Paris Subway Eole and Meteor Line  
1998
- Grand Paris Express, Line 15 Lot 2
- Grand Paris Express, Line 16 Lot 2

## United States

- San Francisco Central Subway  
2015
- New York Subway  
1984
- LYNX Blue Line Extension, North Carolina  
2017
- Metromover Extension Project Miami, Florida  
1993

## Portugal

- Porto Light Subway  
2006

## Venezuela

- Metro De Caracas, Line 3 Plaza Venezuela el Valle Section  
1995

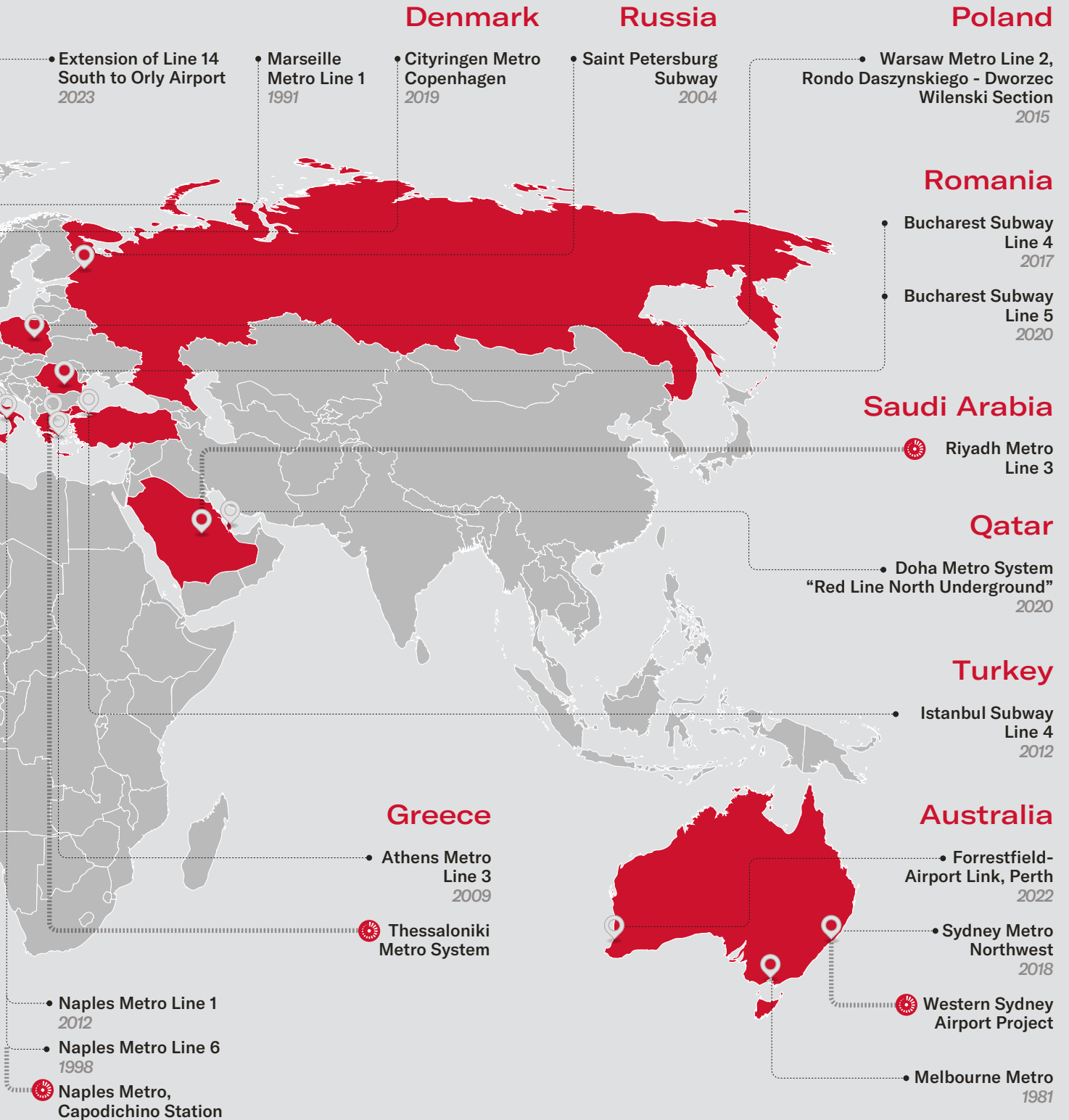
## Peru

- Lima Metro

## Italy

- Milan Metro Line 1  
1985
- Milan Metro Line 2  
1985
- Milan Metro Line 3  
1990
- Milan Metro Line 4
- Milan Metro Line 5  
2015
- Genoa Metro  
2012
- Rome Metro Line A  
1985
- Rome Metro Line B  
1991
- Rome Metro Line C
- Rome Metro B1 Line Bologna-Conca d'Oro and Conca d'Oro-Jonio Sections  
2015

- Metros
- Mass Transit
- Light Rail Transit
- IN PROGRESS
- XXXX COMPLETION DATE





## Grand Paris Express Line 15 West Lot 2

FRANCE

Part of the most innovative sustainable mobility project in Europe

Webuild has undertaken a joint venture to design and construct four underground stations, 7km of tunnels and six 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 each station, 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 9.86m in diameter and a length of over 100m.





#### TECHNICAL/PRODUCTION KPI

**7 km**

of tunnels

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

total volume of earth excavated  
(estimate)

**79%**

proportion of precast segments  
made of fibre-reinforced  
concrete

#### SUSTAINABILITY KPI

**240,000**

passengers/day expected to pass  
through the four new stations

**19 mins (new) vs.  
46 mins (current)**

reduction in travel time between  
La Defense and Saint-Denis  
Pleyel

**800,000**

residents involved



## Rome Metro Line C

ITALY

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 the entirety of Rome from south-east to north-west, it connects the outskirts to the city centre. At 26km 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 to San Giovanni is already in operation: 19km of tracks with 22 stations and a depot/workshop. The next stations to join the line will be Porta Metronia, Colosseo/Fori Imperiali and Venezia, which are 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 KPI

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

of concrete\*

**285,000 tons**

of steel\*

**4,400,000 m<sup>3</sup>**

of underground excavations\*

SUSTAINABILITY KPI

---

**800,000**

passengers/day  
(maximum capacity)

**-310,000  
tons/year**

CO<sub>2</sub> emissions

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

of archaeological excavations

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



## Milan Metro System, Line 4

ITALY

The world's fastest connection between an airport and a city centre (12mins)

Line 4 has a total length of approximately 15 km, with 21 stations, 30 auxiliary structures and 1 depot/workshop, two single tracked tunnels, excavation diameter of 6.50 m in the external sections, excavation diameter of 9.15 m in the central section ("Rome method"). It creates a high-speed public transport link along the east/southwest axis, crossing the historic city centre. It is a driverless, fully-automated light metro with automatic platform doors and a CBTC signaling system (Communication - Based Train Control).

### TECHNICAL/PRODUCTION KPI

**770,000 m<sup>3</sup>**

concrete

**67,800 tons**

steel for reinforced concrete

**1,230,000 m<sup>3</sup>**

open excavations

### SUSTAINABILITY KPI

**86,000,000**

passengers per year

**-180,000**

trips by car per day

**-75,000 tons**

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



## Capodichino Station (Naples Metro Line 1)

ITALY

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 33m and a maximum depth of about 50m. 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 KPI

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**70,000 m<sup>3</sup>**

of concrete used for the entire structure

**8,000 tons**

of steel used for the entire structure

### SUSTAINABILITY KPI

---

**9 min**

airport-city centre connection time

**15,000,000**

passengers expected per year

**200,000 m<sup>3</sup>**

of land reused to redevelop the area



## Riyadh Metro, Line 3

SAUDI ARABIA

The longest line of the giant sustainable project of the Saudi Arabian capital

Line 3 runs from West to East for approximately 42 km and a total of 22 metro stations, including 2 iconic stations. The new metro will reduce traffic congestion and lower pollution in a city with a population that is expected to increase from its current 6 million inhabitants to 8 million by 2030. The project adopts the LEED – Leadership in Energy and Environmental Design - standard for two stations. About 21 km of viaduct are built with prefabricated blocks erected using a total of 7 launching girders to minimize the possible impact on the city's roads. One TBM and Cut & Cover method are used for the underground section. The trains travelling line 3 will have a capacity of 267 passengers and a maximum speed of 100 km/h.

### TECHNICAL/PRODUCTION KPI

**1,900,000 m<sup>3</sup>**

concrete

**240,000 tons**

steel for reinforced concrete

**35,000,000**

man/hours without LTI

### SUSTAINABILITY KPI

**5,000**

passengers per hour in each direction

**-80,000**

trips by car per day

**-100,000 tons**

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



## Hurontario Light Rail Transit

### Sustainable Urban Mobility for Growing Cities

CANADA

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 KPI

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

concrete

**253,285 tons**

asphalt

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

excavations

#### SUSTAINABILITY KPI

**14,000,000**

passengers per year

**-8,573 tons/yr**

greenhouse gases (CO<sub>2</sub> equivalent)

**-30,000**

trips by car per day



## Grand Paris Metro, Line 16 Lot 2

FRANCE

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 11.1km of tunnels 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<sub>2</sub> each year. Webuild construction sites are distinguished by their exceptional capacity for technical innovation and social inclusion. As such, the team working on Lot 2 includes 55 women: a higher number than for other lots of the Grand Paris Express. Fibre-reinforced concrete segments were used to line the tunnel, marking an innovation that effectively halved the amount of steel used in the project. Excavations for Lot 2 have been completed and the entire project is scheduled for completion by next autumn.

### TECHNICAL/PRODUCTION KPI

**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 KPI

**200,000**

passengers/day\*

**154,000**

fewer cars on the roads\*

**-52,000 tons/day**

CO<sub>2</sub> emissions\*

\*Estimated data pertaining to Line 16 as a whole.





## Extension of Line 14 South towards Orly Airport (Lot 4)

FRANCE

The Métro 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 4km 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 28km 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 KPI

**10,940 m<sup>3</sup>**

of structural concrete used

**2,207 tons**

of concrete reinforcing steel used

**4,026 m**

length of excavated tunnels

### SUSTAINABILITY KPI

**300,000**

passenger/day

**-230,000**

car journeys/day

**-15,000**

**tons/year**

CO<sub>2</sub> emissions



## **Forrestfield-Airport Link (Airport Line)**

**AUSTRALIA**

A new infrastructure to take 15,000 vehicles off the roads every day, reducing up to 2,000 tonnes of CO<sub>2</sub> 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 KPI

---

**7 m**

excavation diameter

**3**

stations

SUSTAINABILITY KPI

---

**-2,000 tons**

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

**20,000**

passengers per day



## **Doha Metro, Red Line North Underground**

**QATAR**

The first underground metro system of Qatar to revolutionize the mobility of its capital

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 KPI

**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 KPI

**-215,000**

trips by car per day

**-45,000 tons**

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



## Bucharest Metro Line 5 Lot 1

ROMANIA

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 single-track tunnels – each 4.2km 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 8km 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 KPI

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

of concrete

**34,500 tons**

of steel

**385,000 m<sup>3</sup>**

of underground excavations

### SUSTAINABILITY KPI

**-5,400 kg**

CO<sub>2</sub> emissions/day

**-293 kg**

NO<sub>x</sub> emissions/day

**-541 kg**

emissions of volatile organic compounds



## Copenhagen Cityringen Metro

DENMARK

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 31km 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 carbon-neutral capital in the world. With 85% of citizens now served by a station located within 600m of their homes, car use has dropped dramatically, with the effect of significantly reducing emissions.

### TECHNICAL / PRODUCTION KPI

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

of concrete

**115,000 tons**

of steel

**862,000 m<sup>3</sup>**

of underground excavations

### SUSTAINABILITY KPI

**240,000**

passengers/day

**-96,000**

car journeys/day

**-50,000 tons**

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



## **Naples Metro Line 1**

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

ITALY

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 carried out by the Webuild Group include the key stations of Università, Toledo, Dante, Museo, Materdei, Policlinico and Colli Aminei, as well as the section between Colli Aminei and Piscinola. Webuild's current focus is the construction of Capodichino Station.

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. Toledo Station – designed by Spanish architect Óscar Tusquets Blanca and officially opened in 2012 – has garnered numerous awards, including the CNN Award naming it the most beautiful metro station in Europe. The project represented a significant feat of engineering, with the challenge lying in the geologically and archaeologically complex terrain to be negotiated for its construction.





TECHNICAL / PRODUCTION KPI

**49 m**

depth of Toledo Station

**7,000 m<sup>2</sup>**

surface area of Toledo Station

**18 km**

metro line in operation

SUSTAINABILITY KPI

**135,000**

passengers/day

# Main High Speed Railways

## Switzerland


San Gotthard Tunnel, Bodio and Faido Lots - 2014

## France

TGV Nord Aronde (Lot 19-16) • 1992

TGV Lille and A5 Viaduct • 1992


TGV Line Rhone-Alps, "Rhone" Viaduct • 1992

Turin – Lyon HS Railway Base Tunnel - Lot 2 

Turin – Lyon HS Railway Modane safety site, Lot 5A 

## Italy

 Milan-Genoa "Terzo Valico dei Giovi" - HS/HC Railway  
 • Turin – Milan High Speed Railway System 2009

 Turin – Lyon HS Railway Base Tunnel - Lot 2

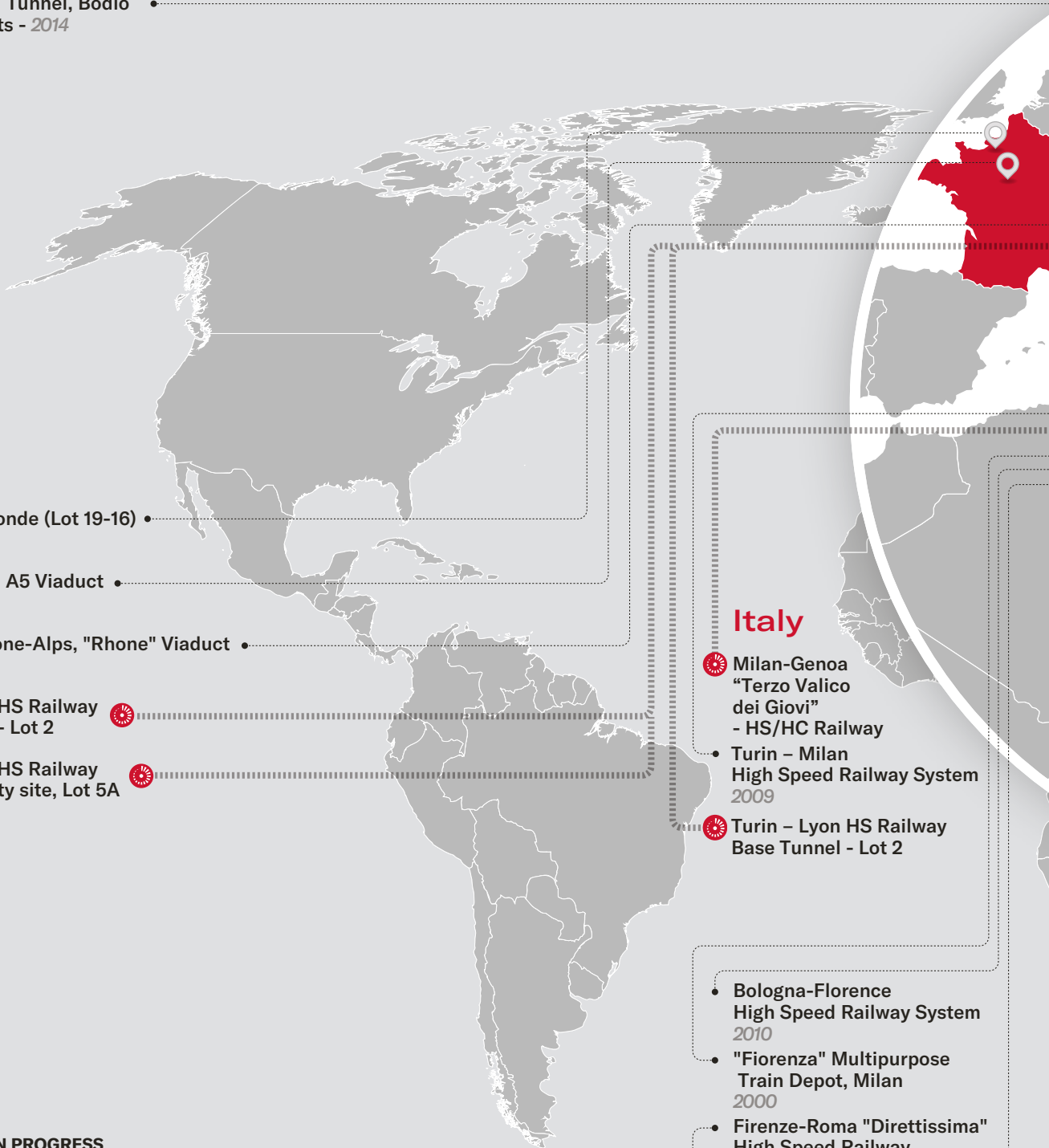
• Bologna-Florence High Speed Railway System 2010

• "Fiorenza" Multipurpose Train Depot, Milan 2000

• Firenze-Roma "Direttissima" High Speed Railway 1983

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## **Terzo Valico dei Giovi HS/HC Railway line – Genoa Junction**

ITALY

A connection between the Liguria port system with the main railway lines of Northern Italy and the rest of Europe

The high-speed, high-capacity railway line will have a speed of 250 km/h and a centre-to-centre track distance of 4.50 m. The section is 53 km long, with 37 km in tunnels. The route connects with the Genoa hub railway network at the Fegino hub, before entering, in succession, the Campasso tunnel (700 m), the Valico tunnel (27 km approx.), the Serravalle tunnel (about 7 km), and finally the Pozzolo artificial tunnel (2 km approx.). The new infrastructure will make it possible to significantly increase the transport offering, improving railway links with the ports in the region of Liguria, the northern Tyrrhenian Sea ports and the north of Italy and central and northern Europe. It will also shorten travelling times between the two cities, Milan and Genoa, by 33% and will reduce pollution.



TECHNICAL/PRODUCTION KPI

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

concrete

**160,000 tons**

rebar steel

**136,000 tons**

steel ribs

SUSTAINABILITY KPI

**-33%**

time of travel

**-400,000 tons**

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



## Brenner Base Tunnel (multiple lots)

ITALY/AUSTRIA

A strategic infrastructure project aimed at fostering increasingly integrated and sustainable mobility in Europe

The Brenner Base Tunnel is the central feature of the new Brenner railway line connecting the axis that runs between Munich and Verona. At an impressive 64km long, including the Innsbruck hub, it will be the world's longest underground railway link upon its completion.

Webuild is currently working on several lots. On the Italian side, it has completed the Isarco River Underpass and is now working on the Mules 2-3 lot. On the Austrian side, it has completed the Tulfes-Pfons lot and is now working on the Sill Gorge-Pfons lot.

The Isarco River Underpass stretch is the southern segment of the Base Tunnel. The lot involved the execution of the civil engineering works for the two main galleries, for a total of approximately 4.5km, and the two tunnels connecting it to the historical line, for a total of approximately 1.7km. Advanced ground consolidation techniques such as jet grouting and freezing were used for construction.

### TECHNICAL/PRODUCTION KPI ISARCO

**1,150,000 m<sup>3</sup>**

of material excavated\*

**280,000 m<sup>3</sup>**

of concrete\*

**434,000 m<sup>3</sup>**

of lean treated with Jet Grouting\*

### SUSTAINABILITY KPI

**+50%**

network capacity

**+80%**

weight capacity

**-69%**

reduction in travel time for passenger trains as compared to the current route

\* Data pertaining to the 'Isarco River Underpass' lot only



## Verona-Padua HS/HC Line

ITALY

A crucial project for Italy's integration into the Mediterranean Corridor

The Verona-Padua HS/HC line – which will span a total of 76.5km 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). The line is divided into 3 functional lots. The first of these, the Verona-Vicenza section, is currently under construction and runs for 44.2km. This lot involves quadrupling the existing railway with a view to improving the quality of the rail service and bolstering Italy's connections with the European network. The second functional lot, which is also under construction, pertains to the Vicenza Crossing, which will stretch for approximately 6.2km from the town of Altavilla Vicentina to Vicenza station, as well as incorporating the modernisation of 4.8km of existing track. The third functional lot, which is currently in the design stage, pertains to the Vicenza-Padua stretch, which will cover more than 26km.

### TECHNICAL / PRODUCTION KPI

**35.6 km**

of railway trenches and embankments\*

**2.4 km**

of manmade tunnels\*

**6.2 km**

of viaducts\*

### SUSTAINABILITY KPI

**-300,000 tons/years**

CO<sub>2</sub> emissions

**3,000,000**

passengers expected per year

\* Data pertaining to Lot 1 only.



## Naples-Bari HS/HC Railway Line - Apice-Hirpinia Lot

ITALY

A strategic project for southern Italy, forming part of the Mediterranean Corridor 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 74km of its total 145km length. The Apice-Hirpinia lot pertains to the central stretch of the line and runs through an area, between the provinces of Avellino and Benevento, which is highly complex from a structural and geomorphological perspective. The section is 18.7km long overall, including 13km of tunnels, 4 viaducts for a total length of 2km, 1 station and 1 stop. There are still 3 runnels to be excavated along the route, and this will be achieved using 2 EPB TBMs with a cutter head spanning over 12m in diameter. The 'Aurora' TBM is currently engaged in the excavation of the 2km-long Grottaminarda tunnel and will later move on to the Melito tunnel (4.4km long). Meanwhile, the Rocchetta tunnel – which involves the most extensive underground work to be done on the Grottaminarda-Apice section, at around 6.5km long – is currently being excavated by the 'Futura' TBM.

### TECHNICAL / PRODUCTION KPI

**18.7 km**

length of the section

**13 km**

total length of the tunnels

**2**

TBMs

### SUSTAINABILITY KPI

**From 4 hours down to 2**

reduction in travel time between Naples and Bari\*

**-3,000,000 tons**

of CO<sub>2</sub> over the period 2023-2047\*

\*Data pertaining to the entire Naples-Bari line





## Naples-Bari HS/HC Railway Line - Orsara-Bovino Lot

ITALY

A strategic project for southern Italy, forming part of the Mediterranean Corridor 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 74km of its total 145km length. The Orsara-Bovino lot involves doubling the final section of the line before reconnecting it to the Bovino-Foggia line, which has been in operation since 2017. The route runs through areas of Campania and Puglia, specifically between the provinces of Avellino and Foggia. It has a total length of about 12km and runs almost entirely through a natural tunnel (Orsara, around 10km long) which can be travelled through at a speed of between 200 and 250 km/h. The majority of the work to be done on the Orsara-Bovino lot is on the Orsara tunnel. It has a double-bore, 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.

### TECHNICAL/PRODUCTION KPI

**12 km**

overall length of the section

**~10 km**

length of the tunnel section

**2**

TBMs

### SUSTAINABILITY KPI

**From 4 hours down to 2**

reduction in travel time between Naples and Bari\*

**-3,000,000 tons**

of CO<sub>2</sub> over the period 2023-2047\*

\* Data pertaining to the entire Naples-Bari line



## Naples-Bari HS/HC Railway Line - Apice-Hirpinia Lot

ITALY

A strategic project for southern Italy, forming part of the Mediterranean Corridor 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 74km of its total 145km length. The Hirpinia-Orsara lot, the second functional lot of the Apice-Orsara section (with the first lot being Apice-Hirpinia), covers 28km between Campania and Puglia.

The Hirpinia-Orsara stretch is the central section of the Naples-Bari line, and the route runs almost entirely underground through the 27km-long Hirpinia tunnel, making it a contender for the record of longest tunnel in Italy (currently held by the Valico tunnel in Genoa).

The Hirpinia tunnel is an incredibly challenging undertaking, not only due to its length, but also because it passes through the Southern Apennine mountains, which are made up of complex formations. The tunnel will primarily be excavated by 4 EPB TBMs, all working simultaneously.

### TECHNICAL / PRODUCTION KPI

**28 km**

overall length of the section

**27 km**

length of the tunnel section

**4**

TBMs

### SUSTAINABILITY KPI

**From 4 hours down to 2**

reduction in travel time between Naples and Bari\*

**-3,000,000 tons**

of CO<sub>2</sub> over the period 2023-2047\*

\*Data pertaining to the entire Naples-Bari line



## Naples-Bari HS/HC Railway Line - Naples-Cancello Lot

ITALY

A strategic project for southern Italy involving hyperbaric excavation

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 74km of its total 145km length. The Naples-Cancello lot covers the first section of the Naples-Bari line, which is strategically important for the reorganisation of the metropolitan, regional and long-distance connections in the area as it makes it possible for the tracks of the HS/HC line to also serve Naples-Afragola HS station (which was also constructed by the Group).

The lot runs for around 15.6km along a variant of the historical line, crossing through a heavily urbanised area. This part of the route includes 4 viaducts – three of which are steel arch bridges – as well as over 3km of manmade tunnel, 2 stations and 1 stop.

A significant innovation for this lot is the construction of a section of the Casalnuovo tunnel – which runs partially beneath the water table – with hyperbaric excavation, the first example of this technique being used in Italy for the construction of tunnels that interact with the water table.

### TECHNICAL / PRODUCTION KPI

**15.6 km**

overall length of the section

**3.3 km**

of the manmade tunnel

**0.65 km**

length of the section excavated hyperbarically

### SUSTAINABILITY KPI

**From 4 hours down to 2**

reduction in travel time between Naples and Bari\*

**-3,000,000 tons**

of CO<sub>2</sub> over the period 2023-2047\*

\* Data pertaining to Lot 1 only.



## **Naples-Afragola High speed railway station**

ITALY

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 Naples Centrale. It takes the form of a long, slinky bridge that passes over the tracks, with a central body 400m long by 44m wide. Including the external courtyards, it occupies a total area of 60,000m<sup>2</sup>. Designed by architect 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: 20,000m<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 200kW 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<sub>2</sub> emissions.



#### TECHNICAL/PRODUCTION KPI

**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 KPI

**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

ITALY

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, 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 KPI

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

concrete

**289,000 tons**

steel

**14,866,000 m<sup>3</sup>**

open excavations

### SUSTAINABILITY KPI

**-47%**

time of travel



## Bologna-Florence HS/HC railway line

From Bologna to Florence in just 35 minutes

ITALY

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 KPI

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

concrete

**30,000 tons**

steel

**9,920,000 m<sup>3</sup>**

underground excavations

### SUSTAINABILITY KPI

**-49%**

time of travel

# Main Railways

## Canada

Canadian Pacific Railroad-Roger Pass Tunnel  
1988

Canadian Pacific, Limited, CP Railroad  
1983

## France

Simplon Railway Line  
1910

Marsiglia-Ventimiglia Railway Line  
1991

## Norway

Nykirke-Barkaker Rail Line

## Switzerland

Rorschach- San Gallo Railway Line and Galgetobel Bridge  
1981

## Algeria

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

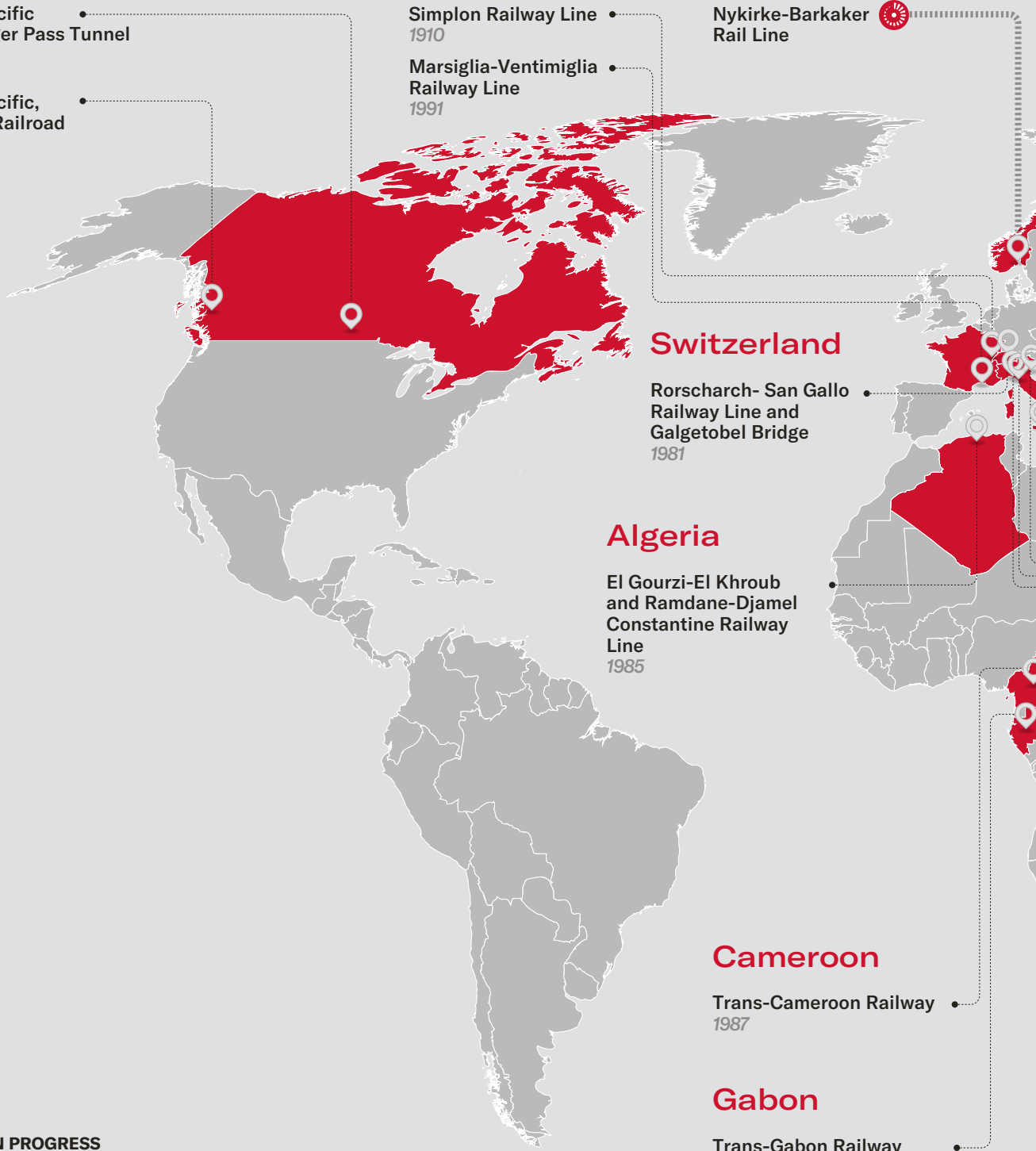
## Cameroon

Trans-Cameroon Railway  
1987

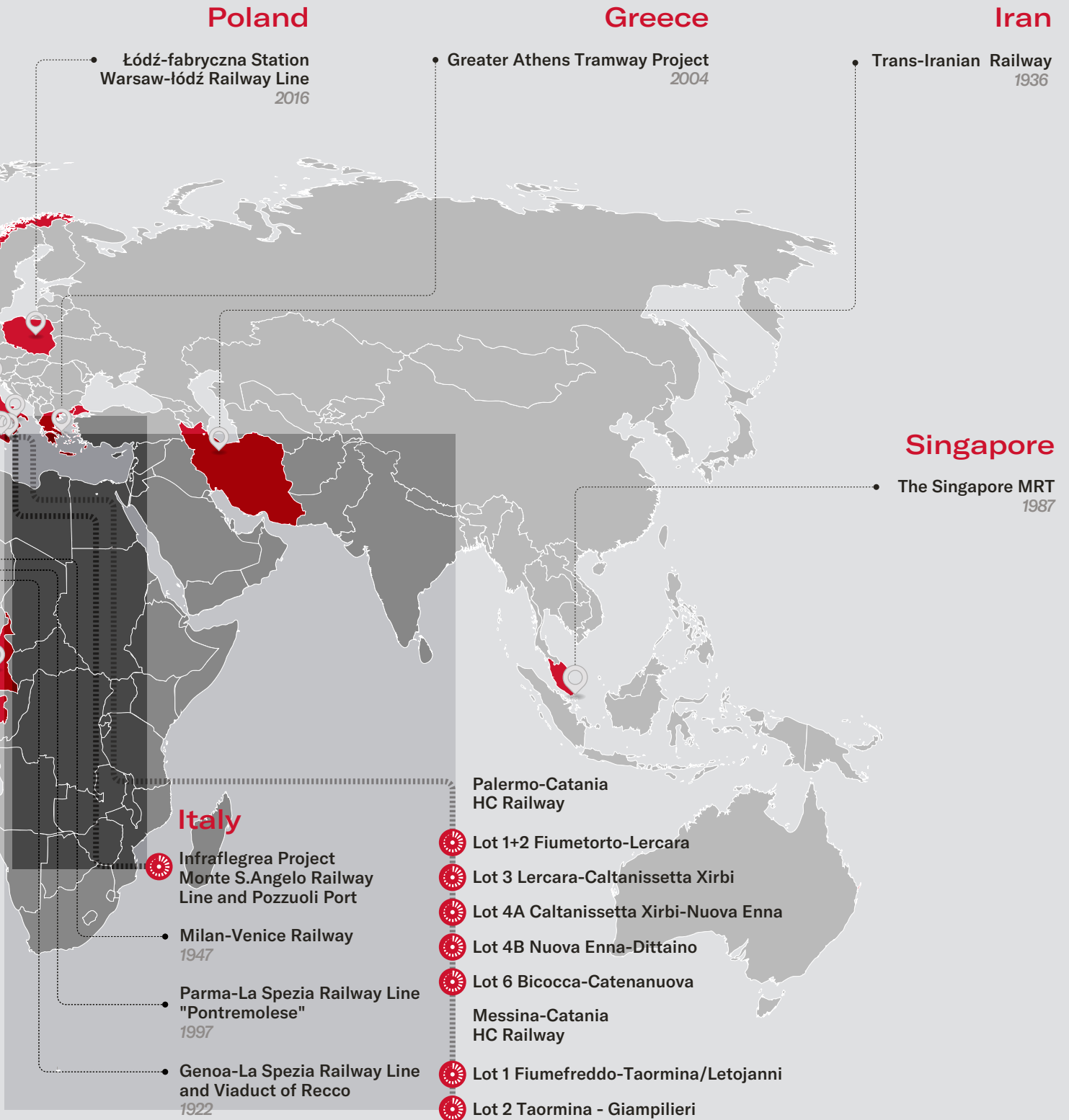
## Gabon

Trans-Gabon Railway  
1986

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## Messina-Catania HC Railway Line, Lot 1 - Fiumefreddo-Taormina/Letojanni

ITALY

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

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity 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 15.4km of the line, including about 11km 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 928m long with an arch span of 120m, 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 KPI

**15.4 km**

total length of the section

**11 km**

of tunnels

**9.16 m**

excavation diameter of Taormina tunnels

### SUSTAINABILITY KPI

**From 75 mins down to 45**

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

ITALY

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

Webuild is building seven sections of the Palermo-Catania-Messina high-capacity line. Lot 2 (Taormina-Giampilieri) is part of the Messina-Catania route and involves the construction of around 28.3km 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 9km 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 KPI

**28.3 km**

total length of the section

**6**

double-bore tunnels

**2**

single-bore tunnels

### SUSTAINABILITY KPI

**From 75 mins down to 45**

reduction in travel time between Messina and Catania\*

\* Data pertaining to the entire Messina-Catania line.



## Palermo-Catania HC Railway Line, Lot 1+2 - Fiumetorto-Lercara Junction

ITALY

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 30km, including 20km of double-bore, single-track tunnels – which will be excavated with the use of four TBMs – and over 2km of viaducts. The project includes 7km of link roads and three stations, one of which (Valle del Torto) is being built from scratch, with the other two (Cerde and Lercara) being modernised.

### TECHNICAL / PRODUCTION KPI

**30 km**

overall length of the section

**20 km**

of tunnels

**3**

stations

### SUSTAINABILITY KPI

**-33%**

reduction in travel time between Palermo and Catania\*

\* Data pertaining to the entire Palermo-Catania line.



## Palermo-Catania HC Railway Line, Lot 4A - Caltanissetta Xirbi-Nuova Enna

ITALY

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 27km of new high-capacity line. The work mostly follows a variant of the existing line and requires the excavation of 20km of tunnels (including interconnections), predominantly with the use of TBMs, as well as the construction of 3km of viaducts. There are also plans to build a new station (Caltanissetta Xirbi) and a passing loop (Villarosa).

### TECHNICAL / PRODUCTION KPI

**27 km**

overall length of the section

**20 km**

of tunnels (including interconnections)

**3 km**

of viaducts

### SUSTAINABILITY KPI

**-33%**

reduction in travel time between Palermo and Catania\*

\* Data pertaining to the entire Palermo-Catania line.



## Palermo-Catania HC Railway Line, Lot 3 - Lercara-Caltanissetta Xirbi

ITALY

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 47km of new high-capacity line. The project requires the excavation of approximately 22km of tunnels (including interconnections), which will be carried out using five TBMs (Tunnel Boring Machines). It also involves the construction of 11km of viaducts and 32km of link roads, as well as the modernisation of Vallelunga station and three passing loops (Marcatobianco, Marianopoli and San Cataldo).

### TECHNICAL / PRODUCTION KPI

**47 km**

total length of the section

**~22 km**

of tunnels (including interconnections)

**5**

TBMs

### SUSTAINABILITY KPI

**-33%**

reduction in travel time between Palermo and Catania\*

\* Data pertaining to the entire Palermo-Catania line.



## Palermo-Catania HC Railway Line, Lot 6 - Bicocca-Catenanuova

ITALY

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 38km 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.

An initial 11.5km section of this lot has already been delivered (to be equipped in due course).

### TECHNICAL / PRODUCTION KPI

**~38 km**

total length of the section

**17**

railway viaducts

**160 km/h**

top speed made possible

### SUSTAINABILITY KPI

**-33%**

reduction in travel time between Palermo and Catania\*

\* Data pertaining to the entire Palermo-Catania line.



## Palermo-Catania HC Railway Line, Lot 4B - Nuova Enna-Dittaino

ITALY

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 15km of new high-capacity line – of which 8.5km will run through tunnels and 2km 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 KPI

**~15 km**

total length of the section

**8.5 km**

tunnels

**2 km**

viaducts

### SUSTAINABILITY KPI

**-33%**

reduction in travel time between Palermo and Catania\*

\* Data pertaining to the entire Palermo-Catania line.





## Nykirke-Barkaker Rail Line

NORWAY

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 by 2024. 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 KPI

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

concrete

**39,314 tons**

steel reinforcement

**1,482,354 m<sup>3</sup>**

open air excavation

### SUSTAINABILITY KPI

**-20%**

time of travel between Oslo and Tønsberg

**-35%**

time of travel between Skien and Oslo

# Main Roads & Motorways

## United States

- I-95 Express Lanes, Virginia 2014
- I-495 Capital Beltway Express Lanes, Virginia 2013
- I-405 Motorway, California
- I-10 Corridor Express Lanes, California
- I-64 Interchange, Virginia
- Expansion "Seminole Expressway/SR 417", Florida

## France

- Frejus Highway Tunnel 1980

## Norway

- Sotra Connection PPP Project

## Brazil

- Anchieta - Imigrantes Motorway System 2002

## Chile

- East - West highway in Santiago - Chile 2005

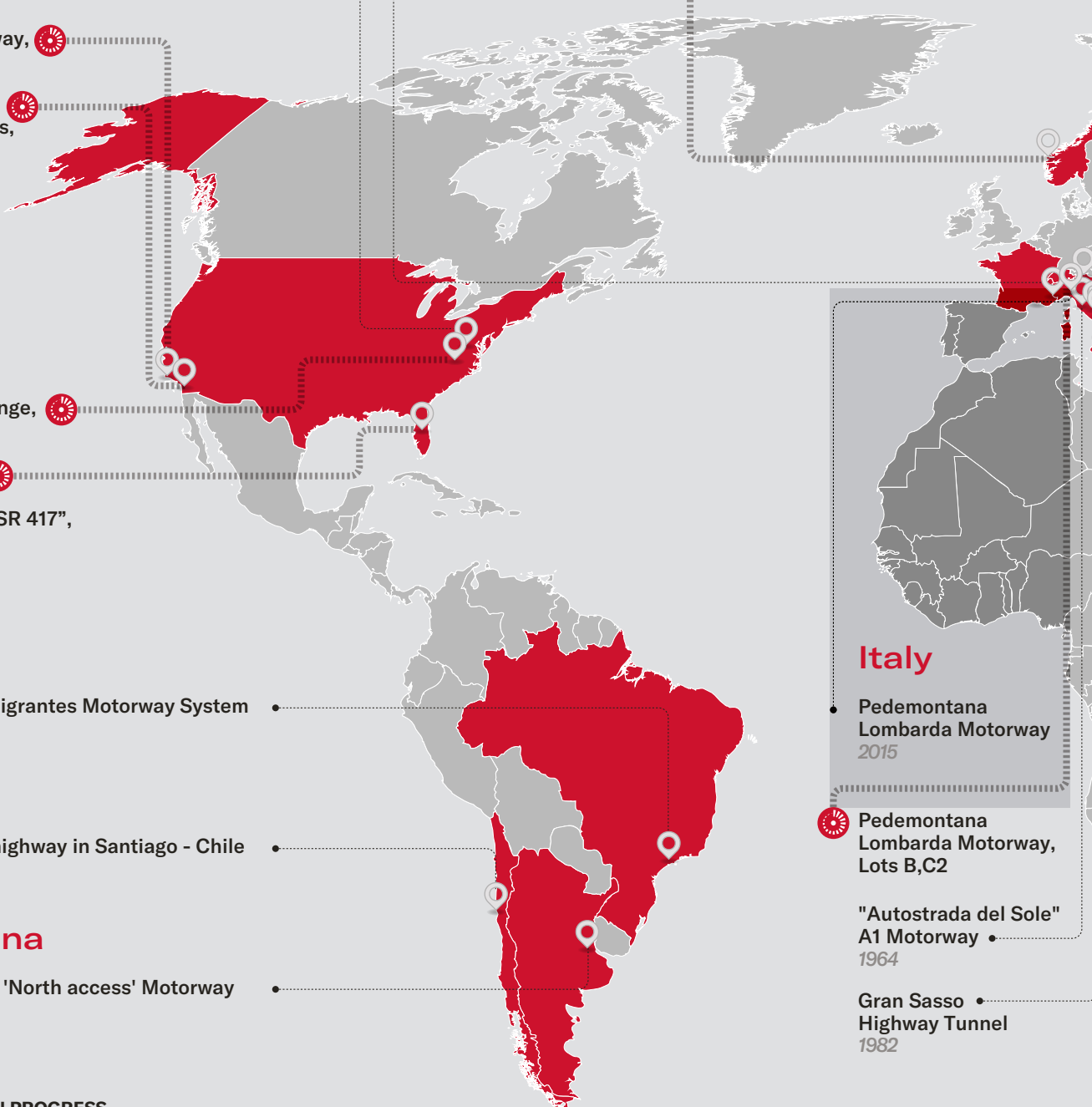
## Argentina

- Buenos Aires 'North access' Motorway 2001

## Italy

- Pedemontana Lombarda Motorway 2015
- Pedemontana Lombarda Motorway, Lots B,C2
- "Autostrada del Sole" A1 Motorway 1964
- Gran Sasso Highway Tunnel 1982

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## Poland

- S-7 Expressway, Naprawa-Skomielną Białą Section and Zakopianka Tunnel

## Turkey

- Northern Marmara Motorway 2018

- Anatolian Motorway 2010

## United Arab Emirates

- Dubai Parallel Roads 2013

- Ras Al Khor Interchange - Dubai 2012

- Brennero A22 Highway 1974

- Marche-Umbria Quadrilateral Highway Network (Maxi Lot 2)

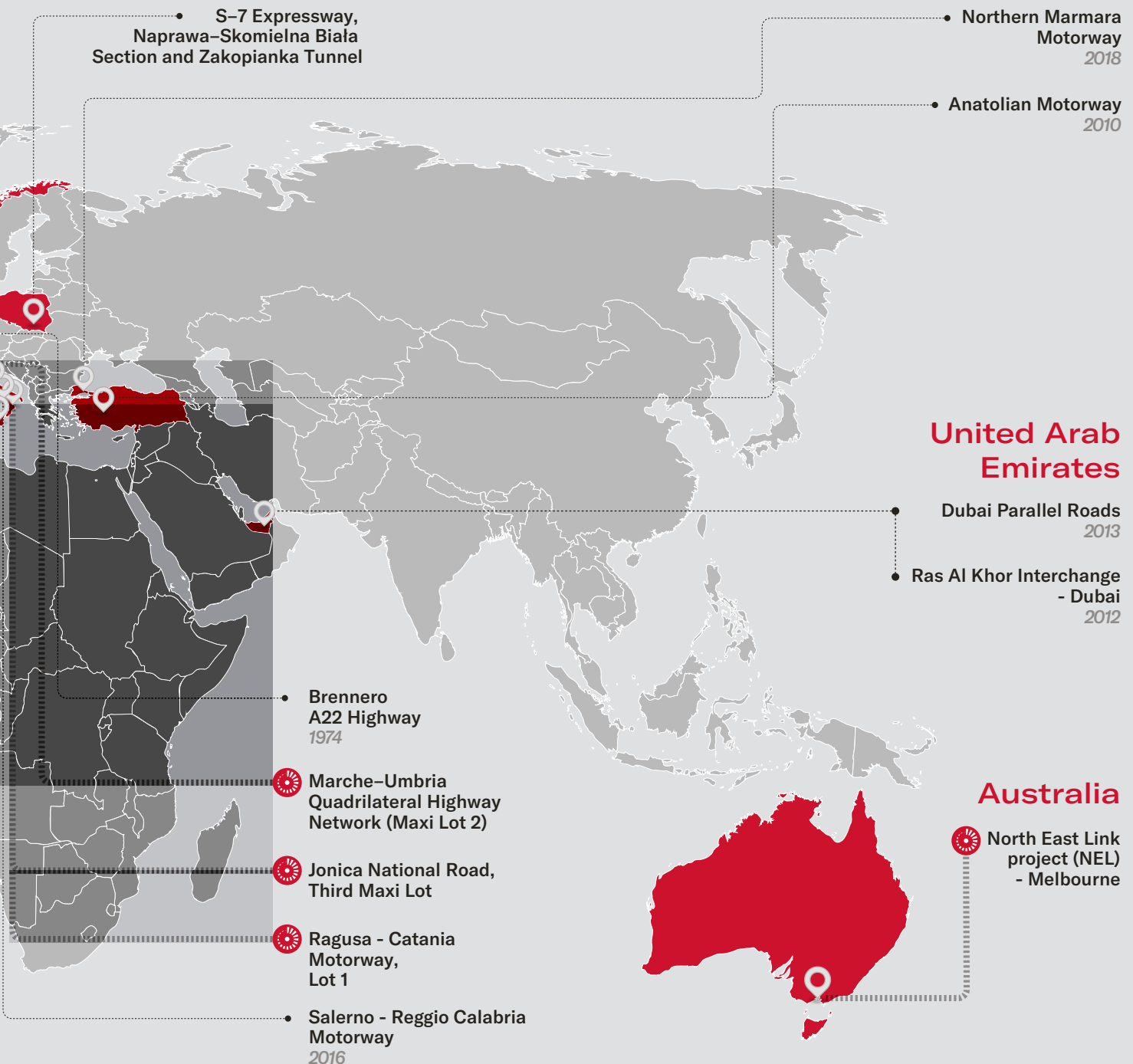
- Jonica National Road, Third Maxi Lot

- Ragusa - Catania Motorway, Lot 1

- Salerno - Reggio Calabria Motorway 2016

## Australia

- North East Link project (NEL) - Melbourne





## I-10 Corridor Express Lanes, Contract 1, CA

USA

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 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 KPI

**570,000 tons**

PCCP concrete

**200,000 tons**

structural concrete

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

earthmoving

### SUSTAINABILITY KPI

**50%**

time of travel during peak hours

Improved speed and reliability for drivers

Meeting the expected growth in population and employment through 2040



## Marche-Umbria Quadrilateral Highway Network (Maxi Lot 2)

ITALY

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 31km of dual carriageway, 22km of which passes through tunnels, as well as the Pedomontana delle Marche over the Fabriano-Muccia/Sfercia section, which is approximately 36km of single carriageway in total, 5km 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 67km, including 25km of tunnels and 55 viaducts. So far, 47km of this has already been completed and opened to traffic.

### TECHNICAL / PRODUCTION KPI

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

of concrete used

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

earthworks

**+90,000 tons**

of steel used

### SUSTAINABILITY KPI

**-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)

ITALY

### 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 25km 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 KPI

**1,100,000 m<sup>3</sup>**

of concrete (estimate)

**90,000 tons**

of steel (estimate)

**9,100,000 m<sup>3</sup>**

of excavations (estimate)

#### SUSTAINABILITY KPI

**5**

provinces linked

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

reclaimed areas (estimate)



## Ionian motorway (Mega Lot 3)

ITALY

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 38km of main country roads, 14 tunnels, 15 viaducts spanning a total length of 7km, four junctions and assorted minor works. The first 18km of the route runs alongside the Sibari Plain; the remaining 20km, meanwhile, passes through the Apennines, requiring the excavation of 11km of tunnels and the construction of viaducts with piers over 40m tall and spans of up to 120m 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 KPI

**39**

simultaneous construction sites

**14**

tunnels

**15**

viaducts

### SUSTAINABILITY KPI

**99%**

waste recovery rate in 2023

**From 36 mins down to 20**

reduction in travel time between Sibari and Capo Spulico



## North East Link project (NEL)

AUSTRALIA

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 north-east while maintaining local roads for local trips and the environmental impact.

### TECHNICAL/PRODUCTION KPI

---

**6.5 km**

twin tunnels

### SUSTAINABILITY KPI

---

**+25 km**

walking and cycling path

**15,000**

trucks off roads per day





## Dubai Parallel Roads

UAE

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 KPI

---

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

concrete for Parallel Roads

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

paving

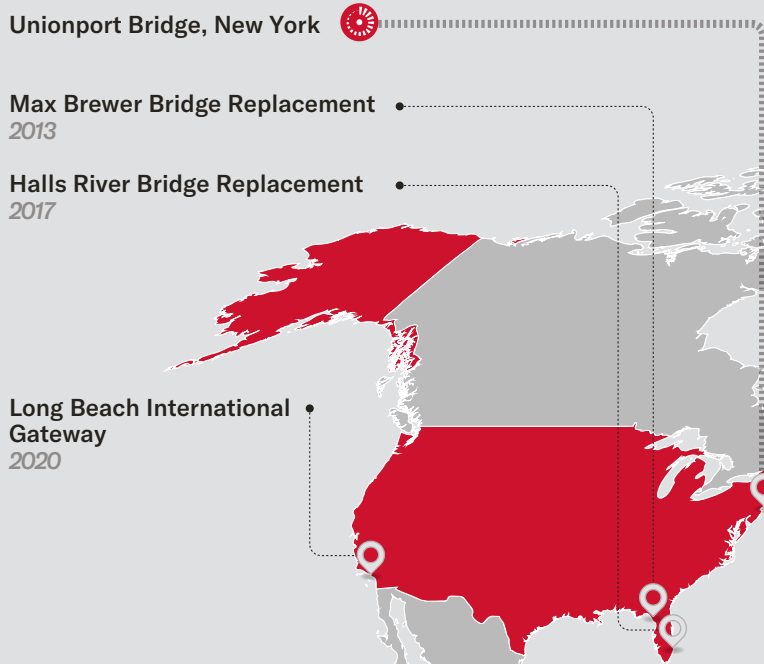
### SUSTAINABILITY KPI

---

Reducing traffic congestion  
in the city

# Main Bridges & Viaducts

## United States



## Colombia

Barranquilla Bridge  
1974

## Argentina

Posadas-Encarnacion Bridge  
1990

Chaco Corrientes Bridge  
1973

Brazo Largo Bridges  
1976

Rosario-Victoria Motorway Bridge  
2003

## Italy

Recco Viaduct  
1922

Genoa San Giorgio Bridge  
2020

Bridge on the Trebbia River, Travo  
1925

Bridge on the Taro River, Fornovo  
1911

Favazzina Viaduct  
2014

 IN PROGRESS

XXXX COMPLETION DATE

## Russia

- Petrovski Bridges, WHSD Project  
2016
- Korabelny Bridges, WHSD Project  
2016

## Romania

- Bridge over the Danube  
river in Braila  
2023

## Turkey

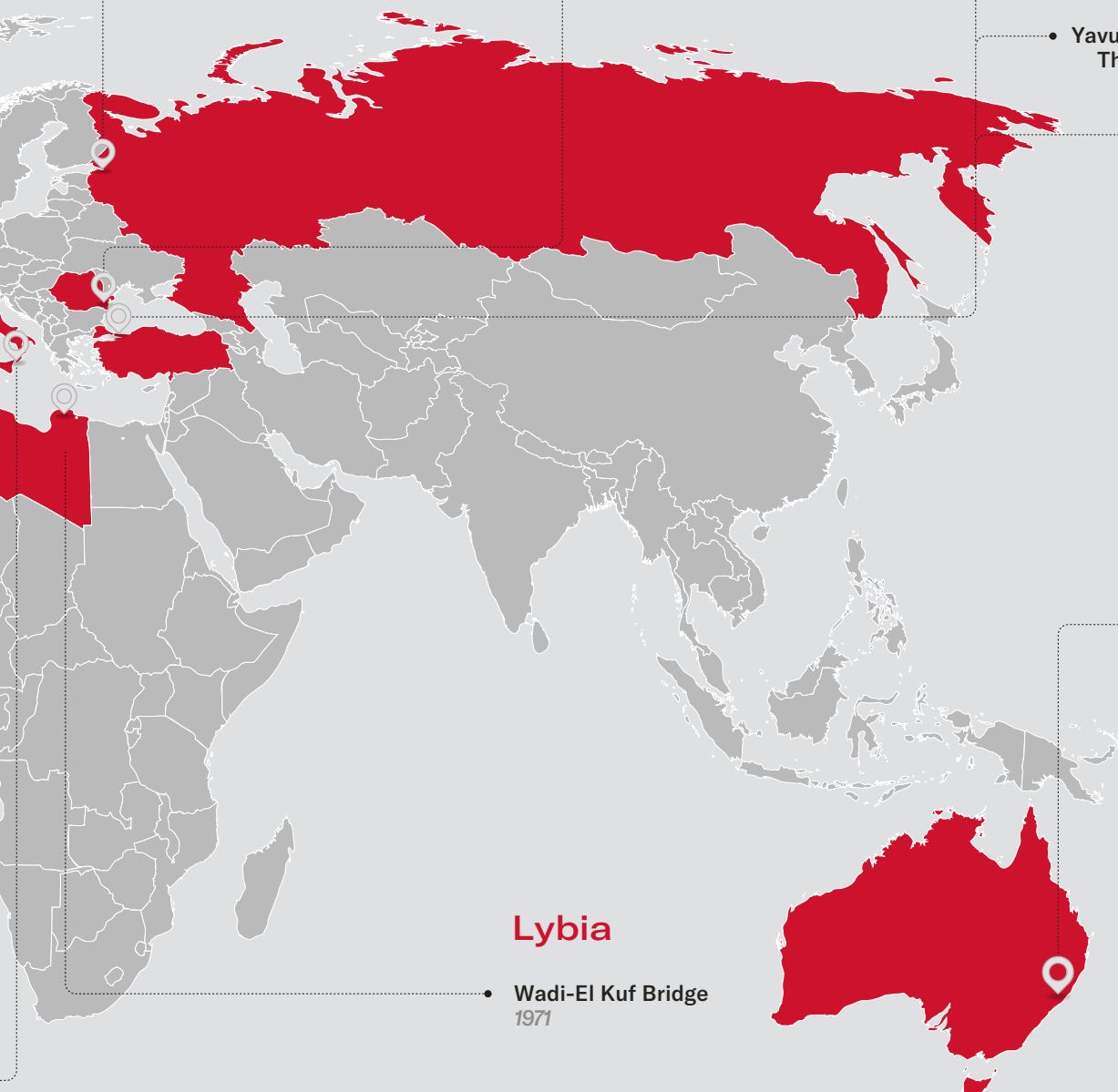
- Second Bosphorus Bridge  
1994
- Haliç Metro Crossing Bridge  
2014
- Yavuz Sultan Selim Bridge  
Third Bosphorus Bridge  
2016
- Osman Gazi Bridge  
2016

## Australia

- Skytrain - Sydney  
Metro Northwest  
2018

## Lybia

- Wadi-El Kuf Bridge  
1971





## Genoa "San Giorgio" Bridge

ITALY

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 KPI

**67,000 m<sup>3</sup>**

concrete

**24,000 tons**

steel

**80,000 m<sup>3</sup>**

open excavations

### SUSTAINABILITY KPI

**100%**

reused excavation waste

**95%**

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



## Long Beach International Gateway, CA

USA

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 2,680m, with a main span of 330m and access viaducts stretching approximately 2km. 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 ever-growing 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 KPI

---

**7,650 tons**

of structural steel

**23,500 tons**

of reinforced steel

**190,000 m<sup>3</sup>**

of reinforced concrete

### SUSTAINABILITY KPI

---

**1,200**

vehicles/hour

**100 years**

expected life span

Accessibility of the port for the latest generation of cargo ships



## Northern Marmara Motorway and Yavuz Sultan Selim Bridge – Third Bosphorus Bridge

TURKEY

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:

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

### TECHNICAL / PRODUCTION KPI

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

concrete

**65,000 tons**

steel

**897,000 m<sup>3</sup>**

open excavations

### SUSTAINABILITY KPI

**39,000,000**

people in the catchment area

**3.5%**

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



## Bridge over the Danube River, Brăila

ROMANIA

The second-longest suspension bridge in continental Europe

At 1,975m long, the Brăila Bridge over the Danube is Romania's longest and continental Europe's second-longest suspension bridge. The central span measures 1,120m, with a width of 31.7m and two towers at just over 192m high. The project includes 23km 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 KPI

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

of concrete

**52,360 tons**

of steel

**19,000 m<sup>2</sup>**

of 1m-thick diaphragms

### SUSTAINABILITY KPI

**7,000**

vehicles/day

**From 45 mins  
down to 2**

reduction in river crossing  
time on weekdays

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



## Skytrain - Sydney Metro Northwest

AUSTRALIA

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 15.5km of tunnels, running from Epping to Bella Vista, as well as the construction of a 4.5km-long viaduct – partly formed of a 270m-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 150m 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 KPI

---

**4,500 m<sup>3</sup>**

total length of the viaduct

**270 m**

length of the cable-stayed bridge

**1,200**

precast concrete segments comprising the viaduct

### SUSTAINABILITY KPI

---

ENR's 2018 Project of the Year





## Osman Gazi Bridge

TURKEY

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 50km southeast of Istanbul, Turkey. The bridge spans a total of 3,300m 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 1,550m long. The bridge is suspended 64m above sea level, with steel pylons standing at just over 230m 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 KPI

---

**3,000 m**

length of the bridge

**1,550 m**

length of the main span

**230 m**

maximum tower height

### SUSTAINABILITY KPI

---

**From 60 mins down to 6**

reduction in bay crossing time

# Main Ports & Sea works

## Italy

Pozzuoli Port •  
2006

New Genoa Breakwater 

Olbia Industrial Port and Isola Bianca Dock •  
1999

Porto Torres Port •  
Technical Upgrading  
2007

Santa Teresa di Gallura Harbour (Sassari) •  
1999

Palermo Port •  
1948

Gioia Tauro Port •  
1987

Naples Port •  
1996

Civitavecchia Port •  
Cruise Ships Quay  
2000

## Honduras

San Lorenzo Port •  
1979

## Panama

The New Panama Canal •  
2016

## Morocco

Mohammedia Port •  
extention works  
1985

## Guinea

Kamsar Port •  
1973

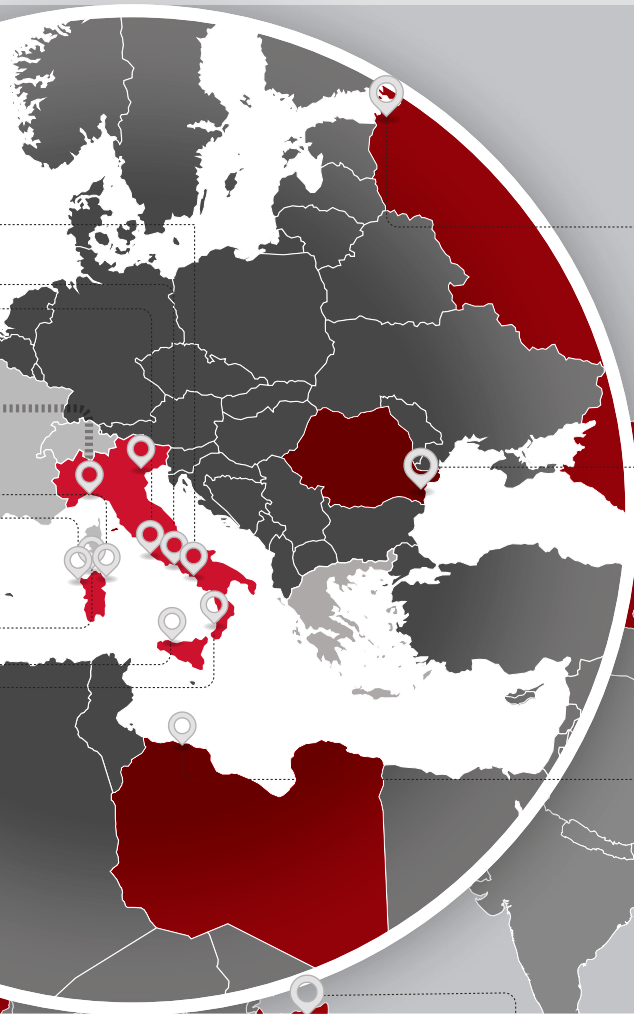
## Nigeria

Apapa Port - Second Wharf extension  
1966

 IN PROGRESS

XXXX COMPLETION DATE





## Russia

- Seaworks for Western High-Speed Diameter (WHSD) 2015


## Romania

- Costantza Port 2001


## Lybia

- Homs Port 1987

## Papua New Guinea

-  Lombrum Naval Base

## Australia

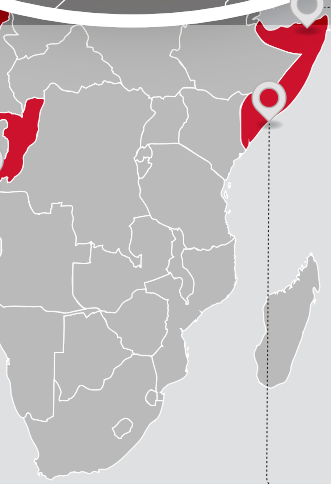
-  Darwin Ship Lift

## Somalia

- Ras Sif Deep Water Harbour (Mogadishu) 1977
- Bosaso Harbour 1990

## Republic of the Congo

- New Quay of Pointe Noire Port 2001





## The New Panama Canal

Redrawing global shipping routes saving and reusing water

PANAMA

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 KPI

---

**290,000 tons**

reinforced steel

**3,300 tons/hr**

concrete aggregates production

**1,240 m<sup>3</sup>/hr**

concrete production

SUSTAINABILITY KPI

---

**60%**

water saving thanks to the innovative Water Saving Basins system

**hundreds**

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



## **New Breakwater in Genoa**

**ITALY**

### 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 400m 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 50m, 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 KPI

---

**~6,000 m**

overall length of the new breakwater

**800 m**

diameter of the new turning basin

**50 m**

maximum depth

SUSTAINABILITY KPI

---

**~1,000**

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

**100%**

Italian consortium

**BUSINESS**

# CLEAN HYDRO ENERGY





## — Hydroelectric Dams & Plants

### — Pumped Storage

Hydropower's great reliability and flexibility are key to the global energy transition as it can balance and stabilise 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 ongoing hydropower projects 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 avoid emissions of roughly 13 million tonnes of CO<sub>2</sub> a year.

Webuild has strong experience in the 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 works are a global benchmark.

# Main Energy dams and Pumped-storage hydroelectric plants

## Canada

Progetto idroelettrico •  
James Bay sul fiume La Grande  
1982


## Islanda

Centrale idroelettrica •  
di Kárahnjúkar  
2008

## Svizzera

Diga della Val di Lei •  
1960

## Stati Uniti

Ship Canal   
Progetto di Qualità  
delle acque -  
Progetto di Tunnel  
di stoccaggio

## Italia

Centrale idroelettrica •  
di Valdo  
1922  
Diga di Morasco •  
1940  
Diga del Togggia •  
1932  
Diga di Mignano •  
1933

## Colombia

Progetto idroelettrico di Sogamoso •  
2015

## Ghana

Centrale idroelettrica •  
di Akasombo  
1966

## Perù

Progetto idroelettrico di Huanza •  
2013  
Progetto idroelettrico di Mantaro •  
1968

## Uganda

Centrale idroelettrica di Bujagali  
2013

## Argentina / Paraguay

Progetto idroelettrico di Yacretà •  
1998


Centrale idroelettrica di Yaciretà   
(Progetto Brazo Aña Cuá)

## Zambia

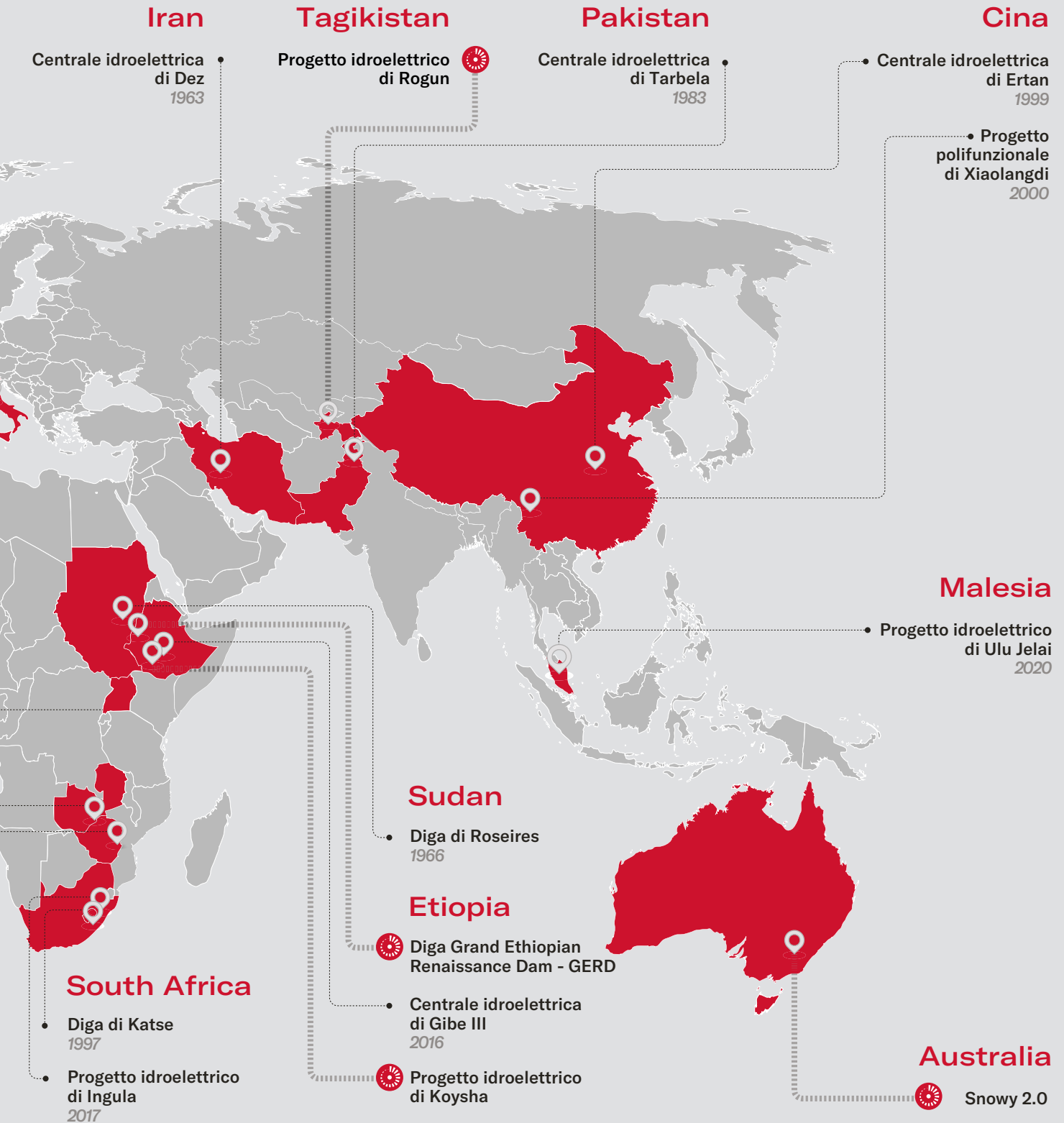
Centrale idroelettrica di Kariba  
1960

## Zimbabwe

Diga di Osborne •  
1994

 IN CORSO

XXXX DATA DI COMPLETAMENTO





## **Snowy 2.0**

**AUSTRALIA**

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 2,200MW (latest figures) the generating capacity of the Snowy Mountains Hydro-electric Scheme currently producing 4,100MW.

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 KPI

---

**29 km**

TBM Tunnel excavation

**485,000 m<sup>3</sup>**

Power House Complex excavation

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

earthworks

SUSTAINABILITY KPI

---

**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



## Rogun Hydropower Project

TAJIKISTAN

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 KPI

**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 KPI

**-1,200,000 tons**

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



## Grand Ethiopian Renaissance Dam Project (GERDP)

ETHIOPIA

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<sub>2</sub> from being released into the atmosphere every year. The dam has been partly operational since February 2022, with two 375MW turbines up and running. The GERDP is located about 700km 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 1,800m long and 170m high. It required 10.7 million cubic metres of RCC to construct. The dam forms a reservoir covering an area of 172,500km<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 KPI

**170 m**

height

**5,150 MW**

total installed capacity

**15,700 MW**

expected average annual  
electricity production

### SUSTAINABILITY KPI

**-2,000,000 tons**

CO<sub>2</sub> emissions avoided every year



## Ulu Jelai Hydroelectric Project

MALAYSIA

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 KPI

**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 KPI

**-250,000 tons**

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





## Sogamoso Hydroelectric Project

COLOMBIA

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 KPI

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

concrete

**20,200 tons**

steel

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

dam embankment

### SUSTAINABILITY KPI

**10%**

total production of Colombia's electricity



## Gibe III Hydroelectric Plant

ETHIOPIA

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 KPI

**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 KPI

**-2,500,000 tons**

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



## Kárahnjúkar Hydroelectric Plant

ICELAND

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 glacial waters of the Jokulsá 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 KPI

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

concrete

**8,870,000 m<sup>3</sup>**

dam's rockfill embankment

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

open excavations

### SUSTAINABILITY KPI

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



## Yaciretá Hydroelectric Project and Power Plant

PARAGUAY

### 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 270MW and will have an average energy production of 1,700GWh per year. The works for this upgrade will be mainly carried out in Paraguay.

#### TECHNICAL/PRODUCTION KPI

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

concrete

**11,500 tons**

steel

**1,386,000 m<sup>3</sup>**

open excavations

#### SUSTAINABILITY KPI

**9%**

increased installed capacity

**-265,000 tons**

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



## James Bay Hydroelectric Power Project

CANADA

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 KPI

---

**160 m**

height

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

dam volume

**2,896 m**

spillway channel length

### SUSTAINABILITY KPI

---

**50%**

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

**BUSINESS**

# CLEAN WATER



- Desalination & Water Treatment
- Wastewater Management Plants
- Hydraulic works
- 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.

Thanks to the group company Fisia Italmimpianti, which leads the desalination, drinking water and water treatment sector, the Group is a strategic partner for public and private sector customers in areas subject to water stress like the Middle East where it builds 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, protecting areas affected by flooding and preventing the pollution of the receiving water bodies.

Every day, more than 20 million people are served by just the desalination plants built by Fisia Italmimpianti while another approximate 16 million people will benefit from the hydraulic infrastructures currently being built by the Group.

# Main Desalination & Wastewater Plants

## Canada

Ashbridges Bay Treatment Plant Outfall



## Italy

San Colombano Waste Water Treatment Plant 2010



## Argentina

Riachuelo environmental restoration system – Lot 2



## Nigeria

Adiyan - Waterworks Phase II



 IN PROGRESS

XXXX COMPLETION DATE





## Turkey

Atakoy Water Treatment Plant  
2018



Yenikapi Waste Water Treatment Plant

## United Arab Emirates

Jebel Ali M1,M2,M3  
2012

Jebel Ali L2  
2008

Jebel Ali L1  
2006

Taweelah B Ext  
2007

• Takreer Desalination Plant for CBDC Project, Abu Dhabi  
2017

## Oman



Salalah Independent Water Project

## Saudi Arabia

• Shoiba 3 Expansion II  
2019

## Qatar

• Ras Abu Fontas B2  
2018

• Ras Abu Fontas A1  
2010

## Australia



Woodman Point Treatment Plant



## **Jebel Ali M Desalination Plant**

**UAE**

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 Italmimpianti, part of Webuild Group, it produces 636,400 m<sup>3</sup> of water every day thanks to its eight desalination units.



TECHNICAL/PRODUCTION KPI

---

**8x17.5 MIGD**

unit

**9**

perf. ratio

**112°C**

top brine temperature

SUSTAINABILITY KPI

---

**636,000 m<sup>3</sup>**

water per day produced

**2,500,000**

people served



## Atakoy Wastewater Treatment Plant

TURKEY

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 KPI

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

total area

**240,000 m<sup>3</sup>/d**

capacity biological stage of the  
Activated Sludge Plant

### SUSTAINABILITY KPI

**20,000 m<sup>3</sup>**

wastewater treated / day

**1,000,000**

people served by the plant



## Ashbridges Bay Treatment Plant Outfall

CANADA

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 KPI

**~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 KPI

**+23%**

improved outfall capacity

**1,400,000**

people served by the plant

# Main Hydraulic works

## United States

Three Rivers Protection & Overflow Reduction Tunnel, Fort Wayne (Indiana)  
2023

West Side CSO Tunnel Project  
Portland  
2006

Lake Mead Intake Hydraulic Tunnel, Las Vegas  
2016

Kansas City's Levees Flood Protection Project

Cleveland, OH Dugway Storage Tunnel  
2020

Anacostia River Tunnel, Washington, D.C.  
2018

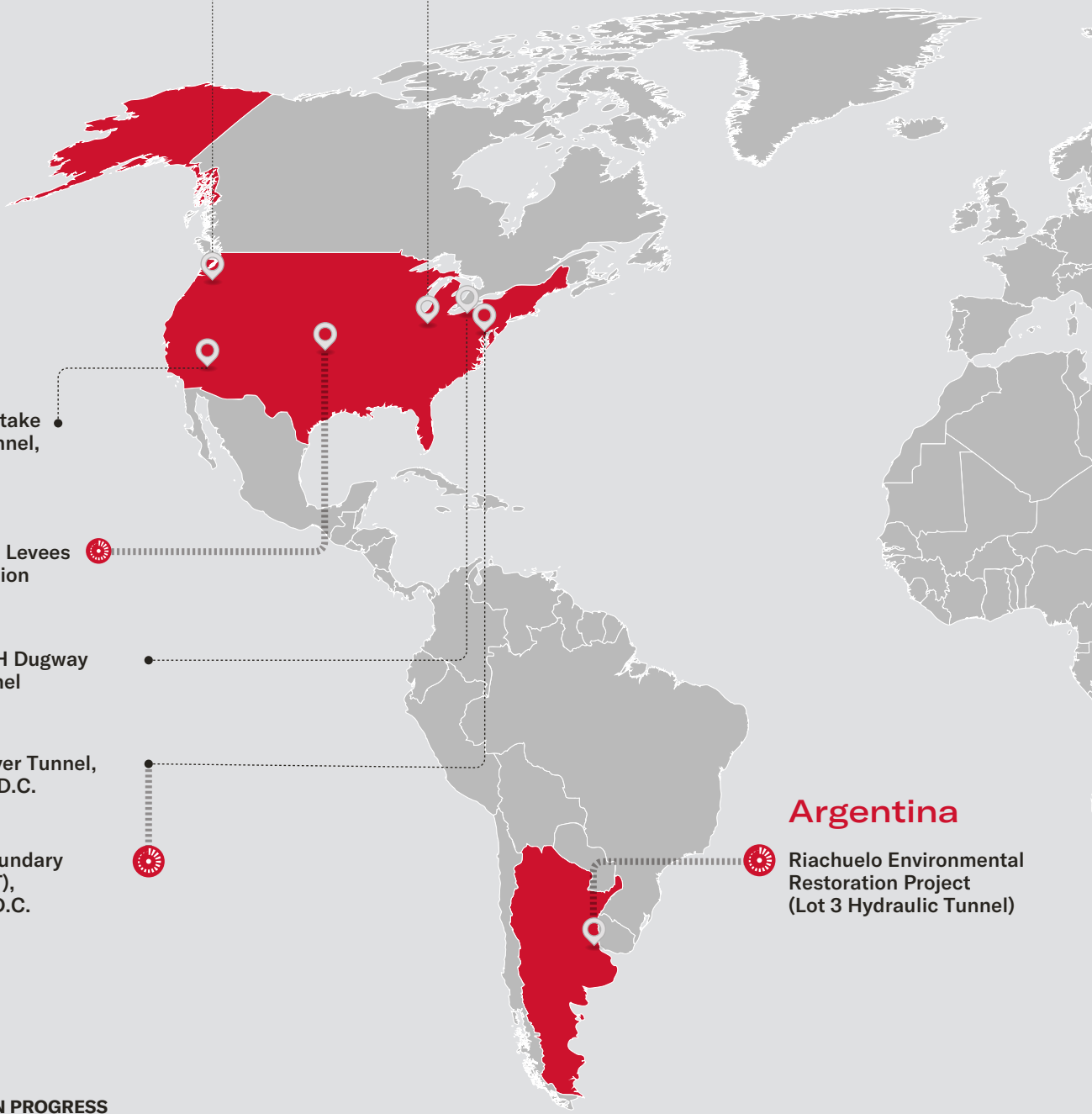
Northeast Boundary Tunnel (NEBT), Washington D.C.

## Argentina


Riachuelo Environmental Restoration Project (Lot 3 Hydraulic Tunnel)

 IN PROGRESS

XXXX COMPLETION DATE



## Saudi Arabia

-  Dams System for Trojena

## Qatar

- Abu Hamour Hydraulic Project  
2018

## United Arab Emirates

- Abu Dhabi Deep Sewer Tunnel  
2014





## **NEOM - Dam System in Trojena**

**SAUDI ARABIA**

### 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 145m high and 475m 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 1.5km<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 75,000m<sup>2</sup> beyond the façade of the main dam and will have a maximum internal height of 120m. Its construction will require approximately 1.5 million cubic metres of concrete and 40,000 tonnes of metal carpentry.





TECHNICAL/PRODUCTION KPI

---

**2.7 million m<sup>3</sup>**

volume of the main RCC dam

**4.3 million m<sup>3</sup>**

volume of the secondary rock dam

**1 million m<sup>3</sup>**

volume of the secondary RCC dam

SUSTAINABILITY KPI

---

**>10,000**

jobs expected (including direct employees and subcontractors)



## Northeast Boundary Tunnel (NEBT)

USA

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 KPI

**8.2 km**

tunnel length

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

depth

### SUSTAINABILITY KPI

**-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



## Anacostia River Tunnel

USA

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 post-casting installation.

### TECHNICAL / PRODUCTION KPI

**3.8 km**

tunnel length

**6**

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

**1**

soft ground tunnel with a minimum internal diameter of 7m

### SUSTAINABILITY KPI

**-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



## Riachuelo Environmental Restoration Project, Lots 2 and 3

ARGENTINA

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 34m-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 KPI

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

concrete

**19,000 tons**

steel

**900**

employees

### SUSTAINABILITY KPI

**4,300,000**

people in the area

**2,300,000 m<sup>3</sup>/day**

wastewater treated



## Lake Mead Intake Hydraulic Tunnel

USA

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 KPI

**4.6 km**

tunnel length

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

underwater excavations

**7.22 m**

tunnel excavation diameter

### SUSTAINABILITY KPI

**90%**

Southern Nevada's water comes from Lake Mead

**25,000,000**

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

# Main Irrigation dams

## Italy

Gela Dam,  
Caltanissetta  
1948

Ancipa Dam,  
Enna  
1952

Ridracoli Dam  
1989

Mignano Dam  
1933

## United States

Merriman Dam •  
for Water Supply  
Lackawack, NY  
1950

Neversink Dam •  
for Water Supply, NY  
1950

Manasquan Dam •  
1990

## Morocco

Asfalou Dam •  
2000


## Algeria

Kramis Dam •  
2005

## Spain

Alcantara Dam •  
1968

## Nigeria

Gurara Dam  IN PROGRESS

## Cameroon

Mape Dam •  
1987

## Namibia

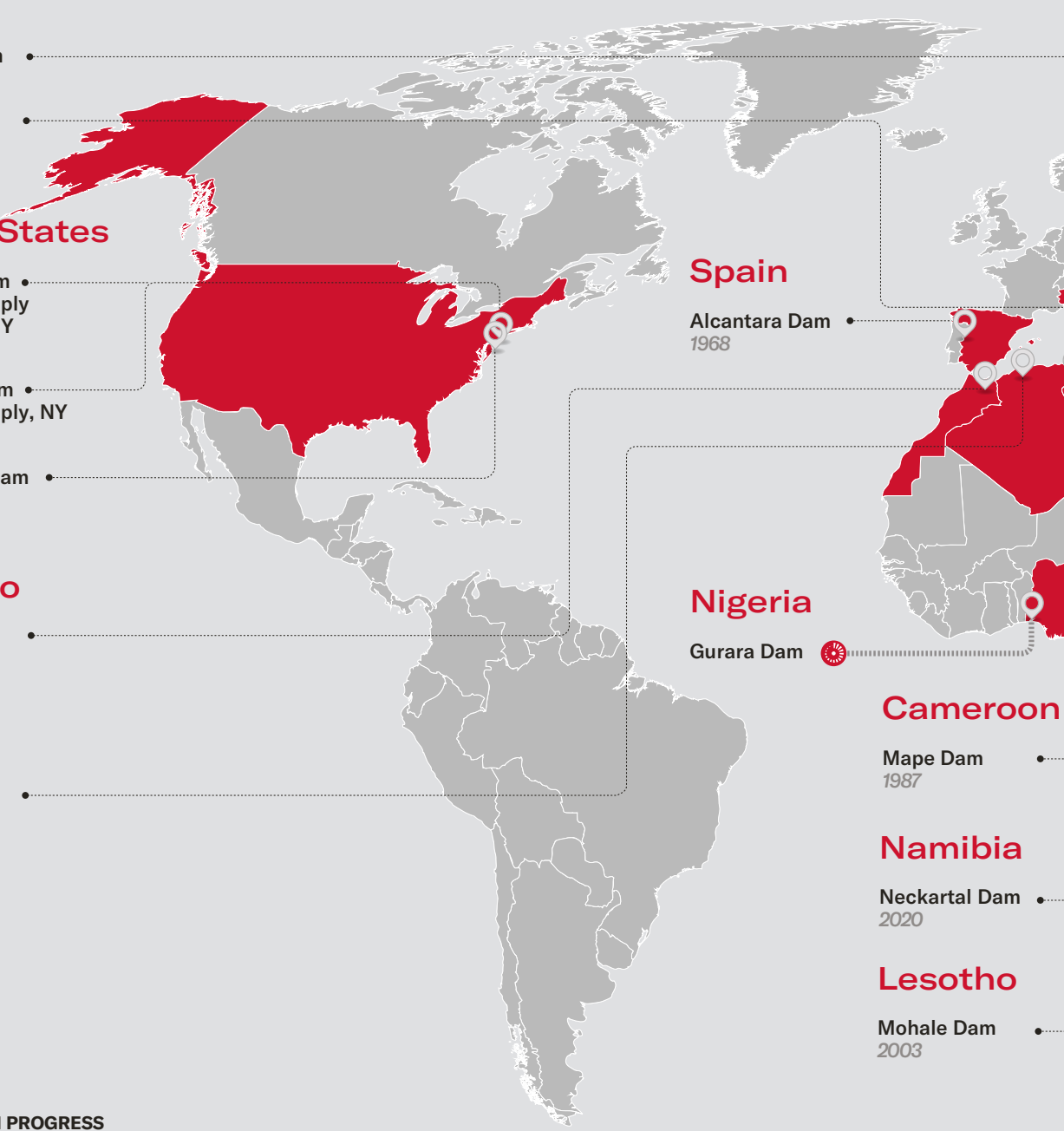
Neckartal Dam •  
2020

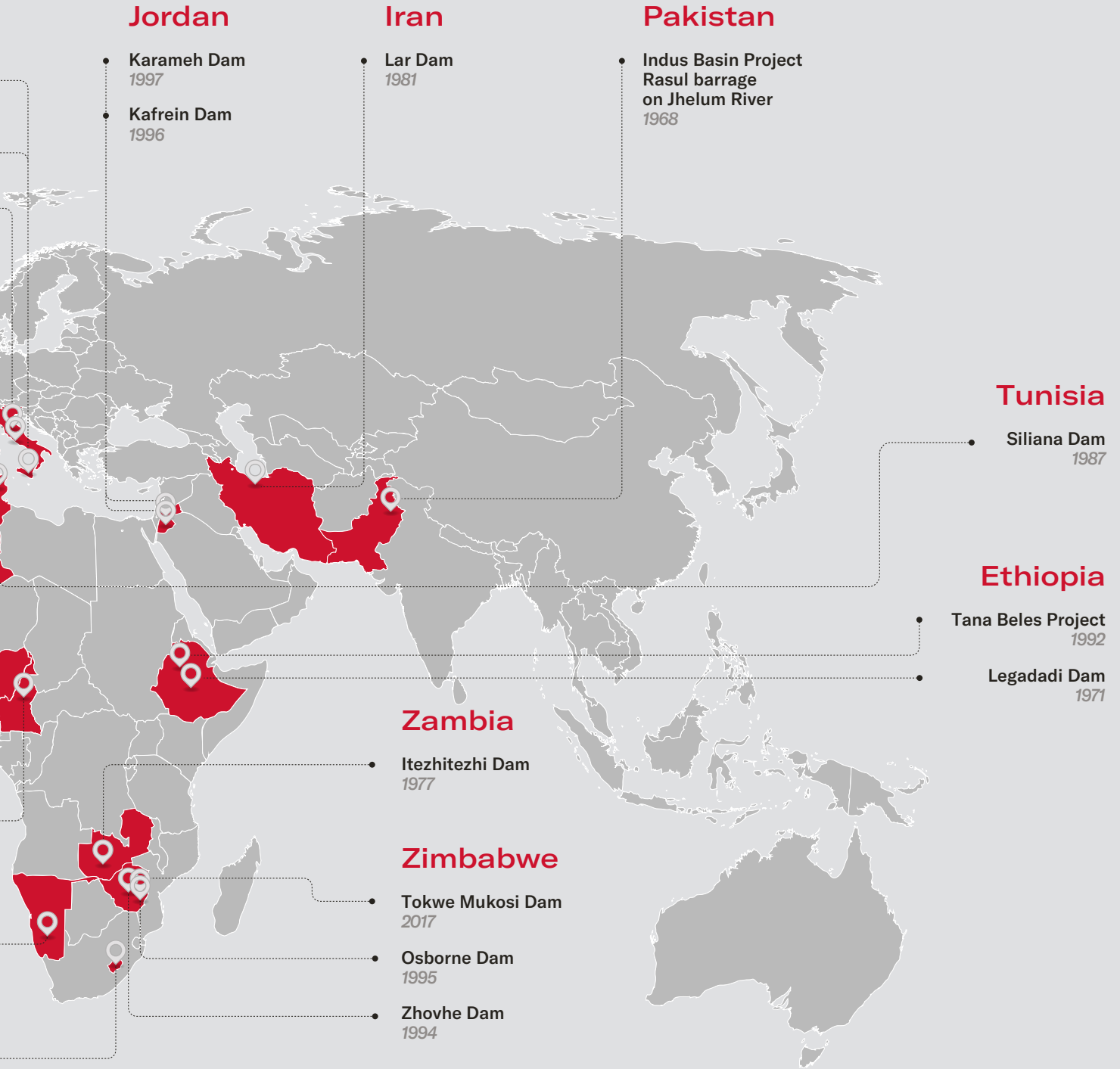
## Lesotho

Mohale Dam •  
2003

 IN PROGRESS

XXXX COMPLETION DATE







## Neckartal Dam

NAMIBIA

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 roller-compacted 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 KPI

---

**78.5 m**

dam height

**850,000 m<sup>3</sup>**

dam volume

**857,000,000 m<sup>3</sup>**

reservoir storage capacity

### SUSTAINABILITY KPI

---

**5,000 hectares**

land irrigated for the agricultural development of the area





## Tokwe Mukosi Dam

ZIMBABWE

### 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 25,000 hectares 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 KPI

**1,800,000,000 m<sup>3</sup>**

reservoir storage capacity

**1,390,505 m<sup>3</sup>**

main dam excavation

**95,000 m<sup>3</sup>**

concrete

#### SUSTAINABILITY KPI

**~25,000 hectares**

farmland irrigated contributing to agricultural development and to the agro-food industry

**BUSINESS**

# GREEN BUILDINGS & OTHER



- Civil and industrial buildings
- Stadiums
- Hospitals
- Airports
- Projects for the Energy Transition

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 urbanisation 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 Management Centre in San Donato Milanese, the Hospital dell'Angelo in Venice-Mestre, 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 recognised 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 optimise production and logistical processes, as well as maximising 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.

# Main Green Buildings & Other

## Italy

 Milan Metro  
Line 4 - Stations  
(n.7 stations and n.1 depot)

New Eni's Headquarters, Milan •  
2023

Palazzo Lombardia, Milan •  
2006

Milan Expo •  
Fair Centre  
in Rho-Pero  
2005

New Hospital •  
in Venezia-Mestre  
("Ospedale dell'Angelo")  
2008

New Auditorium, •  
Rome  
2002

Stadio Olimpico, •  
Rome  
1990

New Hospital in Naples •  
("Ospedale Del Mare")  
2015

Naples-Afragola •  
HS Railway Station  
2017

 New Hospital  
in Monopoli-Fasano  
("Ospedale del Sud-Est Barese")

Amendola (Foggia) •  
Air Base Hangars  
2015

 IN PROGRESS

XXXX COMPLETION DATE

## United Kingdom

• Churchill Hospital,  
Oxford - New Oncology  
Centre  
2009



## Switzerland

- United Nations Offices, Geneva
- Le Bolle Residence, Agno
- Parc du Simplon, Lausanne 2022
- New Gucci Logistics Center in Sant'Antonino, Ticino 2013

## Poland

- New Waste-to-Energy Plant in Danzica, Rzeszów and Bydgoszcz-Toruń
- John Paul II International Airport in Cracow-balice 2016

## Romania

- Lia Manoliu National Stadium, Bucarest 2011

## Qatar

- Doha Red Line North Underground Stations (n.7 stations) 2020
- Al Bayt Stadium in Al Khor, Doha 2020

## Saudi Arabia

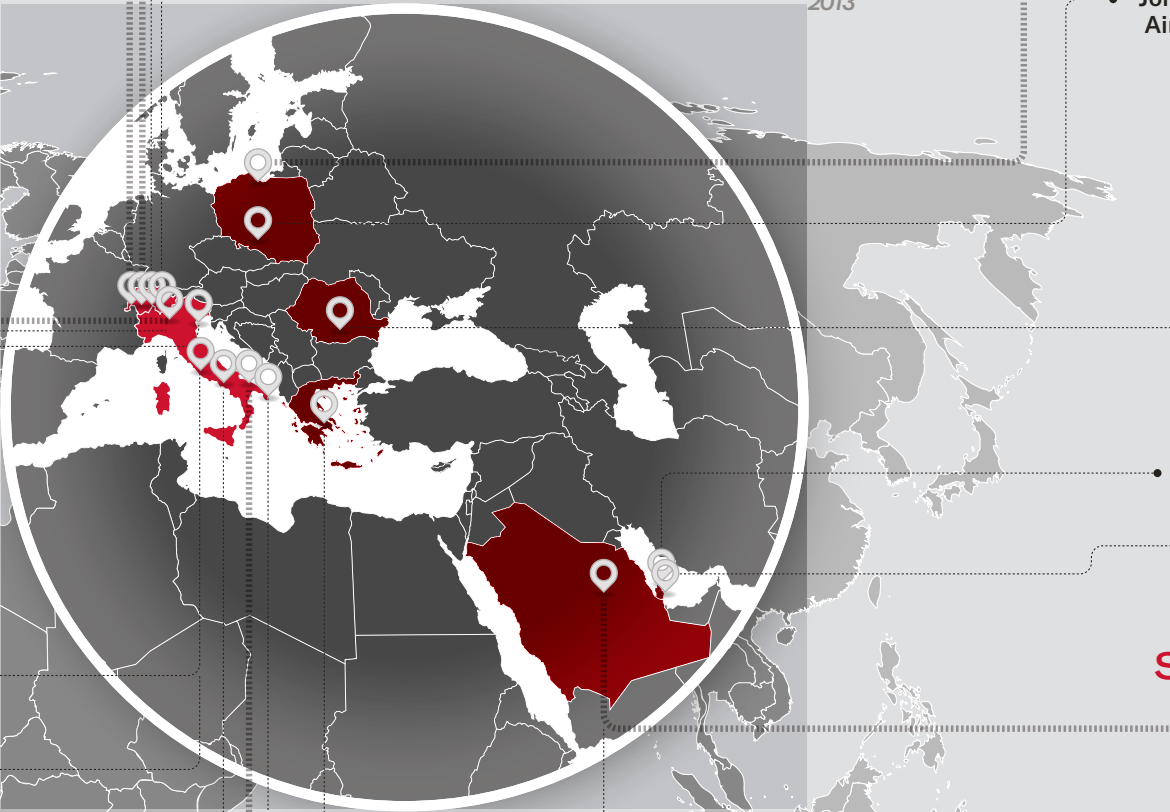
- Riyadh Metro Line 3 Stations (n.2 stations and n.1 depot)
- Kingdom Centre in Riyadh 2002

## Greece

- Stavros Niarchos Foundation Cultural Center, Athens 2016

## Australia

- Perdaman Industries Urea Plant
- Waitsia Gas Development Project, Stage 2
- Forresterfield-Airport Link Stations (n.3 stations) 2022
- Tallawarra Stage B Project





## **Al-Bayt Stadium in Al Khor, Doha**

**QATAR**

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 hyper-technological structure that played host to the 2022 FIFA World Cup. Built 40km 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 water-saving components, make it a paragon of sustainability. In 2020, it was awarded 2 GSAS certifications, each with a 5-star rating.



TECHNICAL/PRODUCTION KPI

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**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 KPI

---

Use of low-impact building materials

Reduced energy consumption due to its tent-shaped design

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



## **Stavros Niarchos Foundation Cultural Centre, Athens**

**GREECE**

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 (33,000m<sup>2</sup>) and the National Library (24,000m<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 230,000m<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 10,000m<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 KPI

---

**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 KPI

---

**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



## **New ENI headquarters in San Donato Milanese, Milan**

ITALY

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 KPI

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**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 KPI

---

**3,000**

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

**~400**

companies involved

LEED Gold-certified



## Palace of Nations, Geneva

SWITZERLAND

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 (100,000m<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.

### KPI TECNICI / DI PRODUZIONE

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

total surface area  
of the complex

**1,000 km**

length of cables laid

### KPI DI SOSTENIBILITÀ

---

**60%**

local staff employed

**40%**

women employed in staff positions

**100%**

energy from renewable sources



## SH2 Data Centre in Gland

SWITZERLAND

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 18MW, 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 40MW, with 14,000m<sup>2</sup> of technical space and 9,000m<sup>2</sup> of office space.

The contract is being executed by CSC Costruzioni (Webuild Group).

### KPI TECNICI / DI PRODUZIONE

**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

### KPI DI SOSTENIBILITÀ

**1.3-1.8**

PUE (Power Usage Effectiveness) ratio



## New Gucci Logistics centre in Sant'Antonino (Ticino)

SWITZERLAND

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

The New 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. v

### KPI TECNICI / DI PRODUZIONE

**40,000 m<sup>2</sup>**

total surface area

**5**

floors (including one basement level)

**20**

loading bays

### KPI DI SOSTENIBILITÀ

LEED Platinum-certified

**30%**

proportion of green areas

**80%**

proportion of local subcontractors



## Riyadh Diriyah Square – Package 2 Super-Basement Works

SAUDI ARABIA

Fulcro del programma di sviluppo urbano che punta a creare la futura “Beverly Hills” di 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 2km of tunnels.

### KPI TECNICI / DI PRODUZIONE

**~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)

### KPI DI SOSTENIBILITÀ

**+9,000**

estimated workers employed  
(direct employees and  
subcontractors) for construction

**+13,650**

potential users (estimate)



## New Monopoli-Fasano Hospital ('South-East Bari Area Hospital')

ITALY

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.

### KPI TECNICI / DI PRODUZIONE

**178,000 m<sup>2</sup>**

total project area

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

of concrete used

**6,500 t**

of steel used

### KPI DI SOSTENIBILITÀ

**915 kWp**

capacity of the photovoltaic system

**260,000**

potential users

**~200**

centuries-old trees replanted on-site





## Palazzo Lombardia, Milan

ITALY

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 161m 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.

### KPI TECNICI / DI PRODUZIONE

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

of concrete used

**19,000 t**

of steel used

**272,000 m<sup>3</sup>**

open-air excavations

### KPI DI SOSTENIBILITÀ

**6,000 m<sup>2</sup>**

green areas

**100%**

groundwater-based heating

Emissions reduced by means of photovoltaic systems on façades and rooves



## San Siro Stadium, Milano

ITALY

The 85,000-seater 'Temple of Football'

San Siro Stadium in Milan, currently the largest stadium in Italy, is an architectural marvel, with characteristic red beams and a seemingly floating roof as the markers of its distinctive appearance. Officially named in memory of footballer Giuseppe Meazza in 1980, San Siro Stadium is often referred to by football fans as the 'Temple of Football'.

Its construction dates back to 1925, when the first four straight stands were built. In 1935, initial expansion works boosted the capacity from 35,000 to 55,000 seats. In 1955, a second round of structural works increased the capacity to 100,000, though this was later reduced to 85,000 for safety reasons. Webuild carried out the last major renovation project: a radical transformation spread over two years in preparation for the 1990 World Cup. Today, the structure seats 85,000, with no terraces, and features a characteristic transparent roof that can be extended to cover the entire stadium (excluding the pitch itself).

### KPI TECNICI / DI PRODUZIONE

**13,400 t**

metal carpentry

**6,000 t**

concrete reinforcing steel

### KPI DI SOSTENIBILITÀ

**85,000**

seats (capacity)



## Olympic Stadium, Rome

ITALY

A landmark sports facility on the European landscape

Completed in 1953, the Olympic Stadium is the iconic stadium of the Italian capital. Webuild carried out substantial renovation works on the structure, completing them in just under three years to prepare for the 1990 World Cup. The stadium was totally rebuilt out of reinforced concrete, with the curves brought closer to the pitch and the entire building covered with a white tensile structure.

Once the works were complete in 1990, the new Olympic Stadium became modern and functional, with a magnificently striking design and an increased capacity – boosted from 54,000 to over 82,000 spectators – making it one of the top 15 largest stadiums in the world by capacity at the time.

Today, the Olympic Stadium remains one of Europe's landmark sports facilities, not only for football, but also for athletics and rugby, which selected the stadium as the primary stage for the Six Nations, the most prestigious rugby tournament in this part of the world.

### KPI TECNICI / DI PRODUZIONE

**5,700 tons**

of steel used

**28,000 m<sup>3</sup>**

of precast concrete used

**42,000 m<sup>2</sup>**

total surface area of  
the new roof

### KPI DI SOSTENIBILITÀ

**+82,000 seats**

maximum capacity



# 07

## INNOVATION



**INNOVATION**

# OUR DRIVERS

- Construction efficiency improvement
- Project-specific challenges overcoming
- Construction risks reduction
- Environmental and safety improvement
- Open innovation through supply chain
- Core processes efficiency boosting

Innovation is the key we use to face global challenges in a sustainable way. Webuild develops technological, contractual and managerial innovations in order to be able to offer high added value services, meeting the global environmental challenges and help its customers move towards sustainable solutions. In 2022, Webuild designed the first Innovation Centre in Lecce (Puglia), aimed at researching and developing multiple complex solutions based on "disruptive" technologies, with the main objective of improving efficiency, sustainability and safety.

## Supply chain

Webuild is investing resources in Open Innovation, to promote the innovation strategy through interaction with external innovation environment, like start-ups, universities and the most innovative companies. Our supply chain, managed through a dedicated Platform, consists of:

- **+19,400 suppliers** from 80 countries,
- **High quality supply base** with average vendor rating index 80/100
- **High innovative suppliers involved in Supplier Meetings** to boost potential innovative proposals within the Group's projects.

## Construction techniques

The Group applies the Lean Construction principles to re-engineer its processes, with a continuous focus on planning and monitoring to improve performance. In recent years the Group worked on some best in class innovative processes/products, from tunnelling to special works. While contributing to improve the Tunnel Boring Machines technique around

the world with high-pressures/high-grades/highly-connected TBMs, Webuild is continuing to innovate the tunneling industry developing, for example, innovative methods to install vertical pipes underwater such as the so-called Riser Concept applied in the Matanza – Riachuelo catchment basin in Argentina, or a robotised factory to design, manufacture and position tunnel segments using highly efficient robotic technology that integrates solutions for innovation, efficiency, circular economy, currently serving the railway lines being built in Sicily. In 2024, tunnelling began on the Naples-Bari HS line using hyperbaric excavation, considered a best practice at the European level. For the construction of part of the Casalnuovo tunnel on the Naples-Cancello stretch, excavations will be carried out by injecting compressed air to keep groundwater safely outside the work areas.

Another innovation comes in the form of the Force-Activated Coupling System (FACS), a pioneering segment assembly model capable of making the structure of hydraulic tunnels more secure. This innovation, designed and patented by Webuild, has been applied in the Snowy 2.0 project in Australia.

## WEM (Webuild Equipment & Machinery)

In 2024, Webuild launched its WEM (Webuild Equipment & Machinery) project, rooted in the concepts of the circular economy and technological innovation in supply chains, launching its first TBM regeneration facility in Terni, Italy. In their ordinary life cycle, TBMs dig and build tunnels, only to be dismantled

and returned to the supplier. Webuild has now started a process at the Terni factory to regenerate used TBMs, becoming the first general contractor to invest in the idea of giving new life to these machines in a circular economy that guarantees project efficiency.

## Digitalization

As a key component of the Group's innovation strategy, digitalization processes entail the development of innovative tools using artificial intelligence (AI) and the Internet of Things (IoT) to facilitate the processing of big data and making summarized and detailed outputs available in real time throughout the organization. Starting from 2022, the Tunnel WeView system, to assist management, monitor a project's production, safety and environmental aspects and its impact by the real-time collecting, processing, and viewing of operating, energy and environmental data, has been applied in the Snowy 2.0 project.

## BIM & VDC

The development of Building Information Modeling (BIM) and Virtual Design and Construction (VDC) approaches, processes and tools allowed the company to implement innovative ways to foresee and optimize construction processes, relying on collaborative, multi-dimensional models shared across the different disciplines involved. In this scope, recent Research & Development activities include AI application to project data, construction *Big Data*, advanced construction simulations, and on-site virtual and Augmented Reality.

## Innovative materials

Research on materials is aimed at improving structures' performance, operational efficiency while reducing costs and environmental impacts. In recent years such studies entailed the development of optimized concrete mixes, the development of advanced admixtures and the substitution of high emission cement with equivalent low-carbon materials. Main environmental improvements associated with such innovations include:

- more than 220,000 tons of cement saved;
- lower transport costs and associated environmental impacts;
- more than 320,000 tons of CO<sub>2</sub> avoided.

## Energy efficiency

The Group is investing increasing resources in innovating its energy-intensive processes both through specific projects such as the "Construction 4.0" electrical systems that allows to monitor work sites' electrical parameters and improve energy performances, and by replacing high-consumption processes with more eco-friendly ones. An example is the innovative high capacity conveyer belts developed in Tajikistan for the automated transportation of construction materials, that allows to increase transportation rates while avoiding the use of trucks, so reducing safety risks, fuel consumptions and emissions.

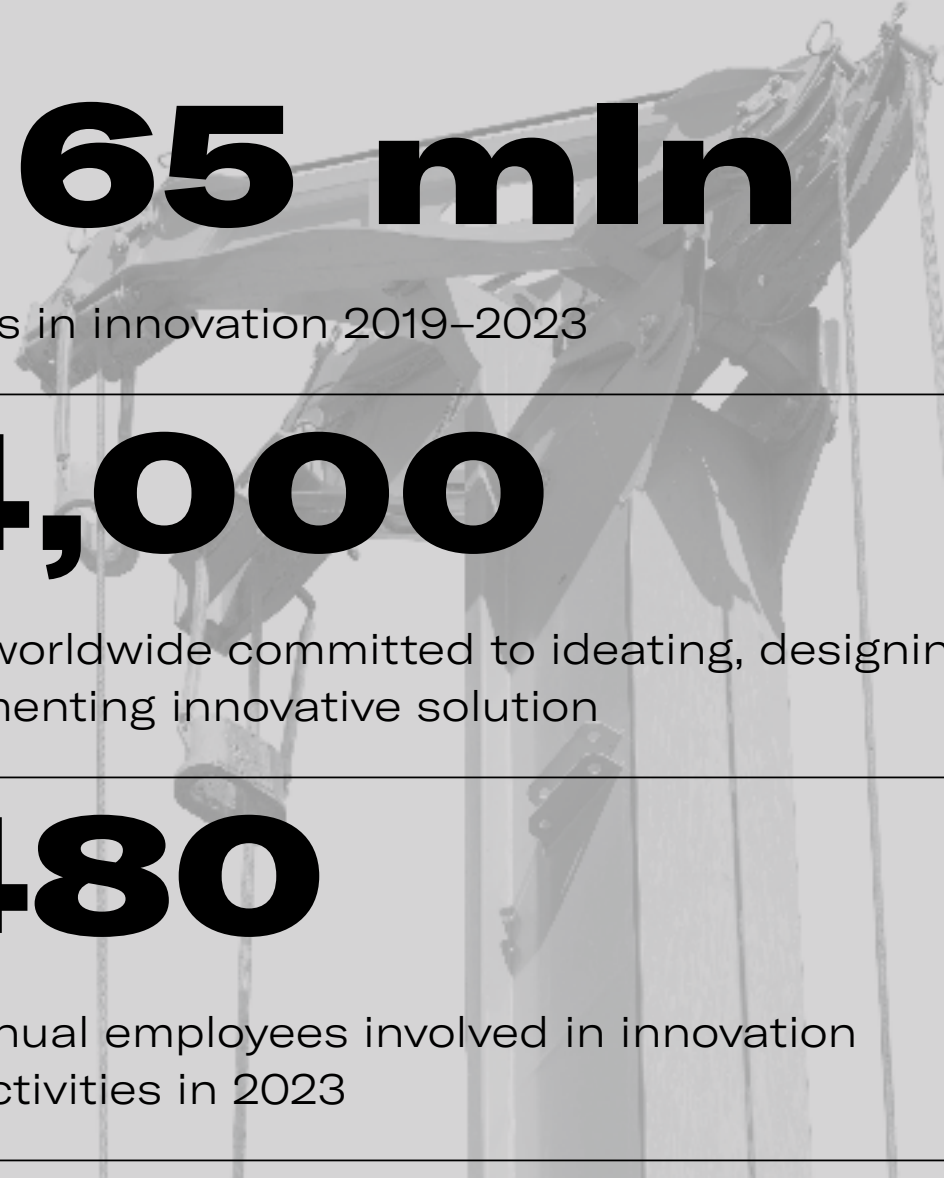


## HSE innovation

Webuild, with the aim of continuously improving its safety performance, is also investing in Health and Safety innovation. New technologies and devices, currently already present in other sectors, are also being applied in the construction sector, allowing an increase in security levels, also through a greater perception and awareness of risks. In Genoa, for example, new technologies and devices, currently

already present in other sectors, are also being applied in the construction sector, allowing an increase in security levels, also through a greater perception and awareness of risks. On the “San Giorgio” Bridge construction site as well as the Genoa – Milan HS/HC site, integrated Smart Safety systems were tried out and tested in the human-machine interaction, hazardous area perimeter, and suspended load fields.

## Our key numbers for innovation



# €165 mln

investments in innovation 2019–2023

# >4,000

engineers worldwide committed to ideating, designing and implementing innovative solution

# ≈480

average annual employees involved in innovation and R&D activities in 2023



# 08

## PEOPLE



**PEOPLE**

# OUR MAIN ASSET



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

## Leadership and Development

The Group promotes a culture of leadership with the aim of imbuing 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 programmes 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 supports 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 more wide-reaching communication strategy, the “Valyou - Our Health and Safety Way” project, recognised 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 2023, over 2 million training hours on occupational safety were provided.

The Company’s main workplaces celebrate the World Day for Safety and Health at Work (“WSD”) on 28 th of April, starting from 2016 and in line with the International Labour Organisation (ILO).

### Safety performance

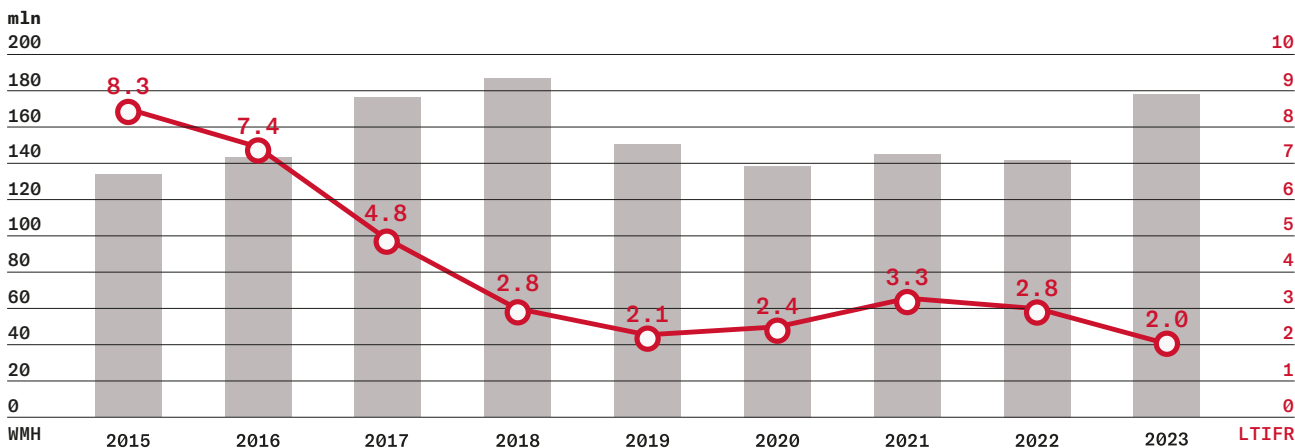
The Group's safety performance trend is continuously improving.

In 2023, the Group achieved the injury reduction target set by the ESG Plan of -40% compared to 2017.

Over 90% of the 2023 construction backlog of the Group contributed to reaching the sustainable development goals (SDGs) set by the United Nations. And among the other results, at the end of 2023, the Group managed to reduce the level of its emissions (Scope 1&2) by 67% compared to the 2017 baseline.

LTIFR Lost time injury frequency rates

PER MILLION WORKED MAN-HOURS



## ValYou Our Health and Safety Way



### Safety Builders Program 2018–2023

- 58 worksites and offices
- 677 workshops and training sections
- 11,800 managers and supervisors involved
- +45,000 training hours

### World Safety Days 2016–2022

- +34,000 participants
- 220 worksites
- +2,000 photos
- ~250 videos



### Internal communication 2018–2023

- 50 countries
- +31,500 employees reached
- 18 released videos
- +16,000 delivered communication materials
- 133 collected stories of Valyou
- 10 languages

**#1**

among European peers based on 2019 LTIFR data

**618,000**

hours of health and safety training in 2022

**-58%**

of the LTIFR index (2023 vs 2017)

**11,800**

employees involved in our Safety Builders programme



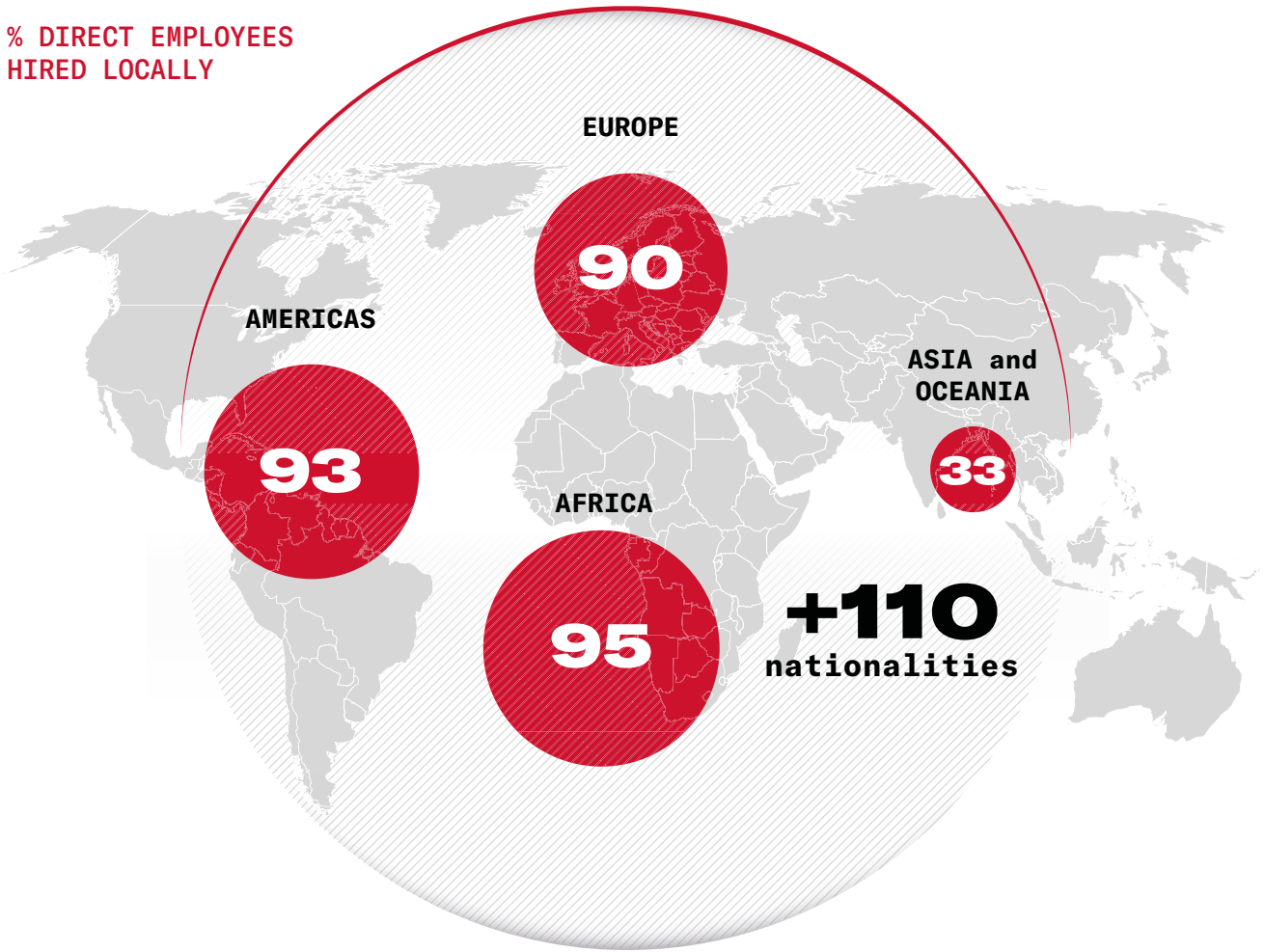
## Diversity and Inclusion

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.

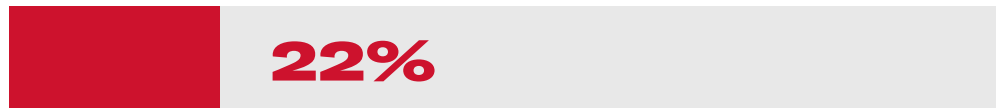
The Group conducts its business by providing a working environment where all employees feel included, valued and free to bring their different skills, experiences and perspectives. We value and encourage diversity and inclusion of gender, age, culture and background through our *“Equality, Diversity and Inclusion Policy”* and throughout specific training, communication and development programs and initiatives.



**% DIRECT EMPLOYEES HIRED LOCALLY**



**INTERNATIONAL KEY POSITIONS**

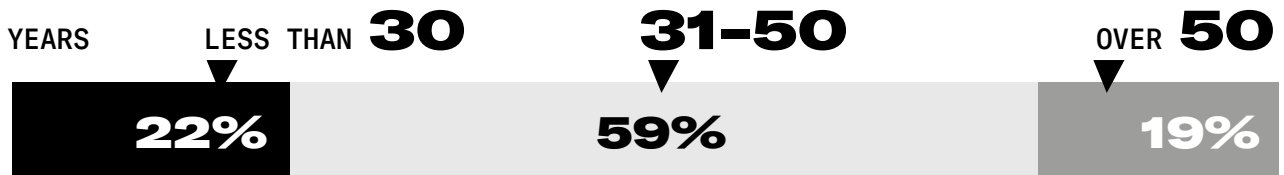


**% LOCAL MANAGERS**



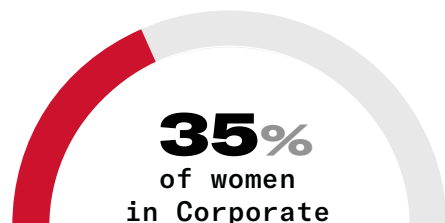
**AGE DIVERSITY**

**39** years **AVERAGE AGE**



**FEMALE REPRESENTATION**

**40%** Women in the Board of Directors Webuild



## **New Recruits and Professional Training**

In recent years Webuild has been attracting Executives and Managers coming from international competitors as well as from other industries, to build up a multicultural and cross industry leadership to lead the company through change. Looking for best talents and best practices on a global scale is what inspires the Group recruiting, together with diversity and integrity as core values for assessing candidates.

Early career initiatives are a strategic tool for attracting new talents, but also a very to convey our values and the principles in which we believe.

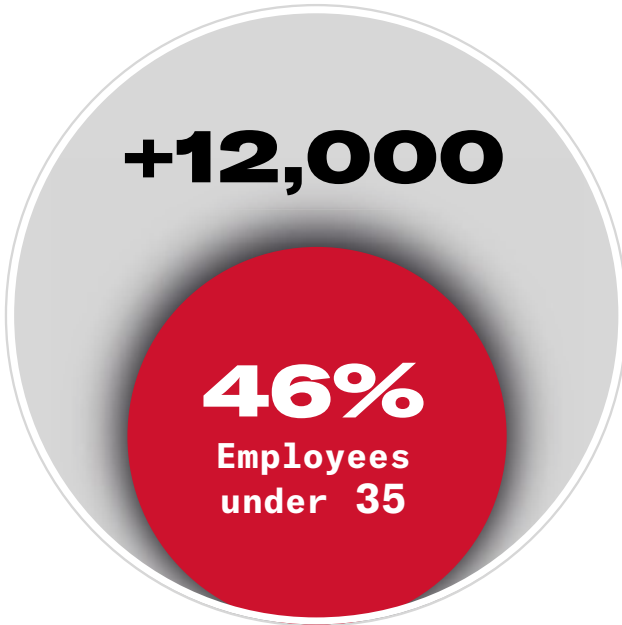
Webuild programmes offer an opportunity to young people for training and guidance. We collaborate with 18 of the best universities in Italy and around the world and we have also activated several scholarship programmes focused on Diversity and Inclusion as well as STEM and Innovation.

Young People initiatives, part of the Webuild Next-Gen Programme, include two projects: the Alberto Giovannini Award - dedicated to undergraduates, new graduates and Italian universities (within the faculties of Engineering, Economics and Informatics promoting innovation and research in infrastructure and the UniWeLab Hackathon aimed at identifying innovative, creative, and smart proposals for sustainable mobility.

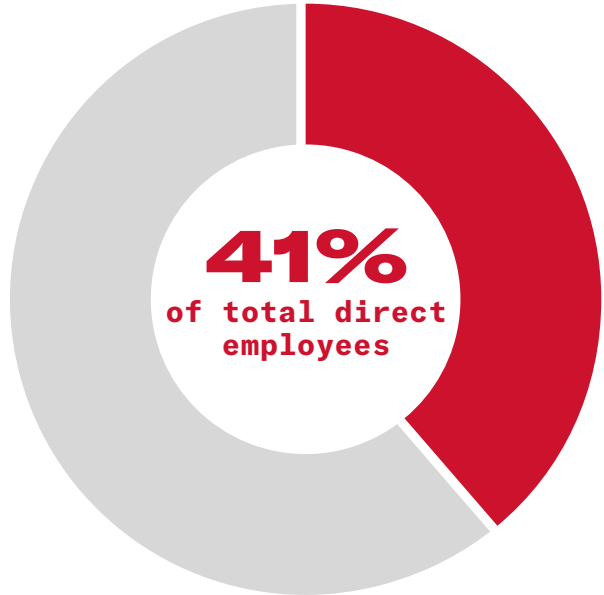
Both programmes are strictly related to the research.

In 2021 Webuild launched the “Scuola dei Mestieri” a Trade School for vocational training in construction, totally dedicated to training specialized personnel. In 2023, it launched “Cantiere Lavoro Italia”, a training programme that foresees the Group hiring 10,000 people and training 3,000 of them, in house, by 2026.

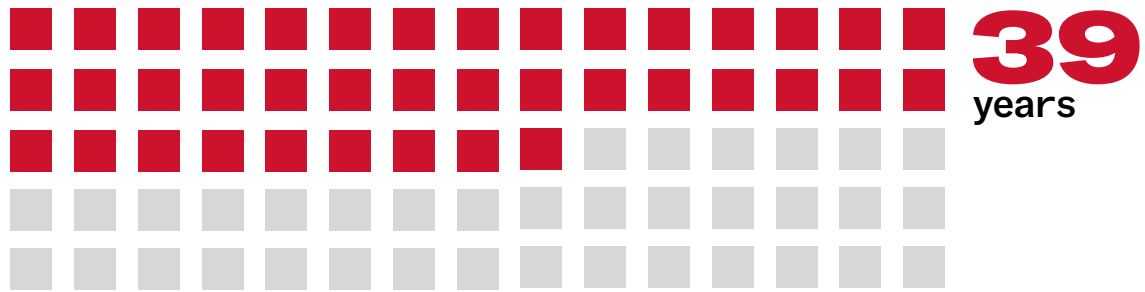
### New hirings 2023



### Employees under **35**



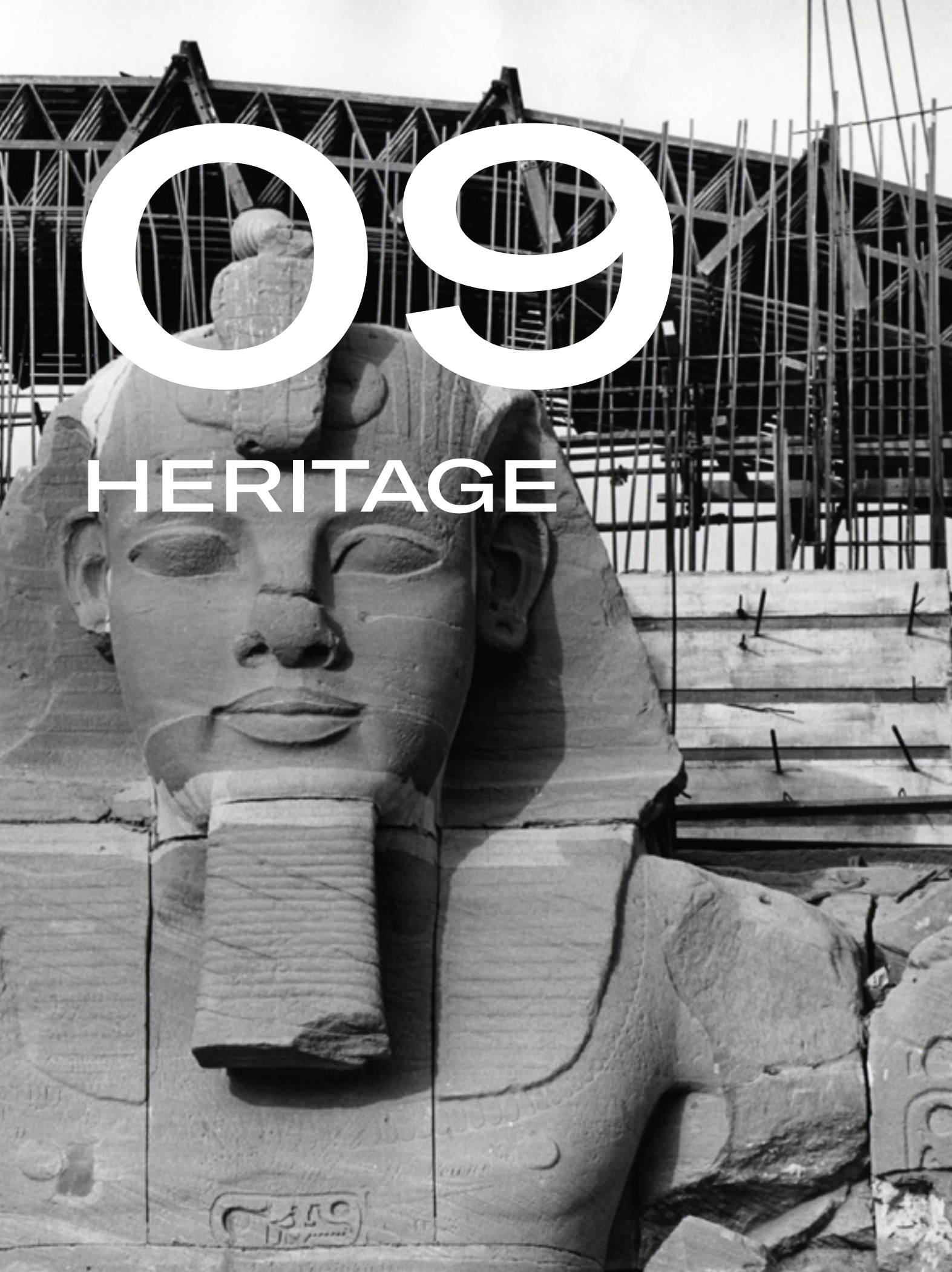
### AVERAGE AGE





09

HERITAGE





# OUR HISTORY

Webuild's history dates back to 1906 with the establishment of two predecessors in Italy: the Girola and Lodigiani companies. Along with the Salini family 30 years later, they contributed to the development of the country's infrastructure 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 fact 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, Progetto Italia, the industrial plan aimed to consolidate the construction sector and create an even bigger group, with the entry of Astaldi, Cossi and Seli. The recent acquisition of Clough in Australia has enabled the Group to reach a more ambitious level of scale, skills and technology.

# Our corporate 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 Costruzioni 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

## 1994

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

## 1998

Impregilo S.p.A. acquires Fisia S.p.A. on 14th July



## 2009

Salini Costruttori acquires Todini S.p.A.

## 2011

Salini Costruttori began purchasing ordinary shares of Impregilo

## 2014

Salini Impregilo 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

## 2019

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

# Main completed projects

**ITALY**

Simplon  
Railway Line



**1911**

**ITALY**

Morasco  
Dam



**1936**

**SWITZERLAND**

Val di Lei  
Dam



**1957**

**COLOMBIA**

Chivor  
Hydroelectric  
Project



**1970**

**LESOTHO**

Katse  
Dam



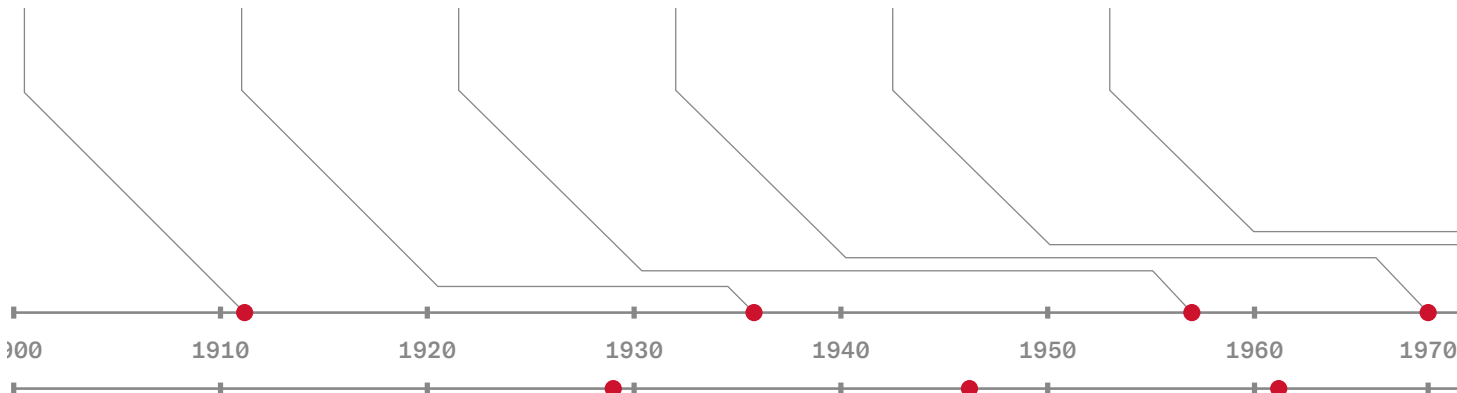
**1991**

**ITALY**

Turin-Milan  
High Speed  
Railway



**2009**



**1926**



**ITALY**

Mignano  
Dam

**1946**



**ITALY**

Viaduct  
of Recco

**1961**



**GHANA**

Akosombo  
Hydroelectric  
Plant

**1982**



**CANADA**

James Bay Project  
La Grande River  
Dam and Plant

**2006**



**U.S.**

Portland West Side  
CSO Tunnel  
Project

**2012**



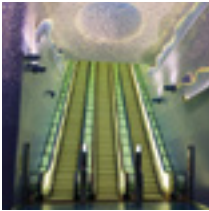
**UAE**

Jebel Ali M  
Desalination Plant



**ITALY**

Naples Underground Line 1



**2013**

**POLAND**

Warsaw Underground Line 2



**2015**

**U.S.**

Lake Mead Intake 3 Hydraulic Tunnel



**2016**

**AUSTRALIA**

Sydney Metro Northwest



**2018**

**ITALY**

New Genoa Bridge



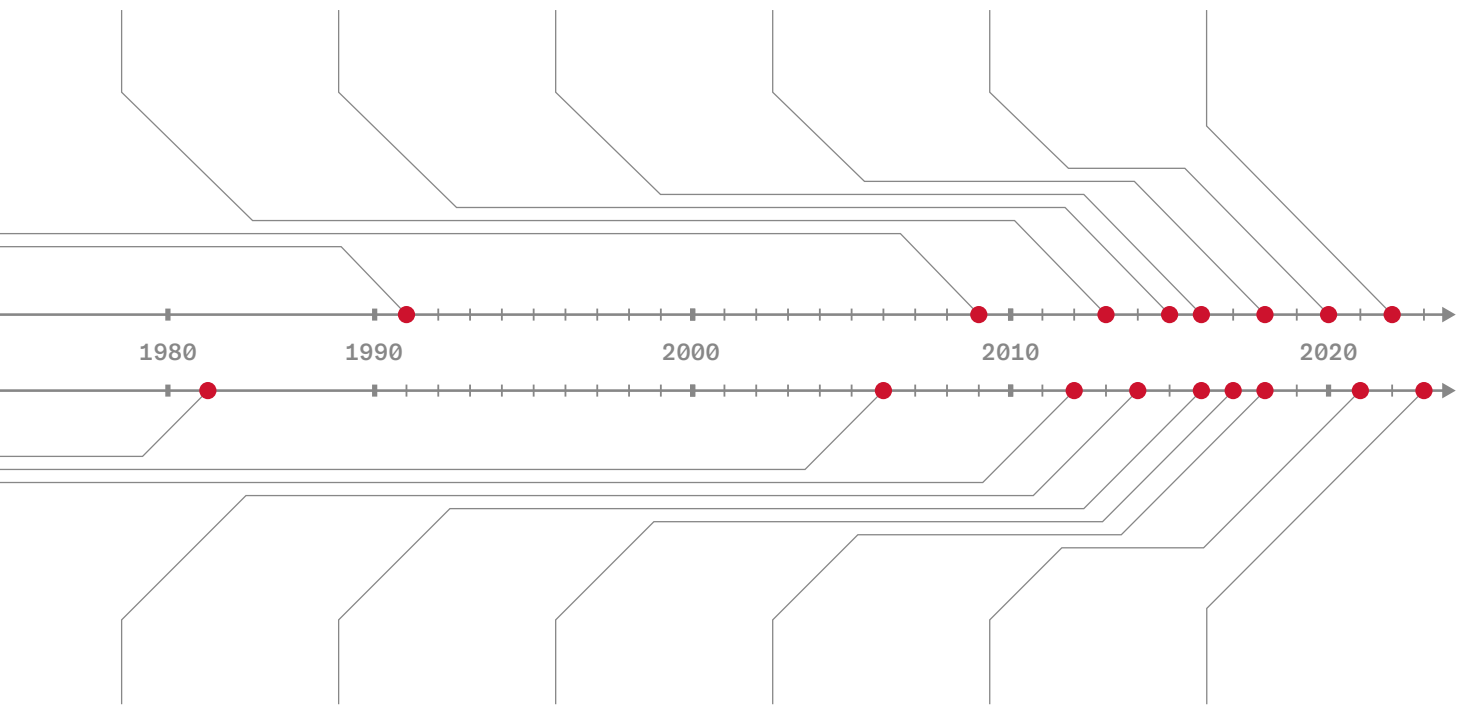
**2020**

**AUSTRALIA**

Forrestfield Airport Link Perth



**2022**



**2014**



**UAE**

Abu Dhabi Deep Sewer Tunnel

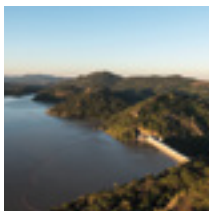
**2016**



**PANAMA**

New Panama Canal Expansion

**2017**



**ZIMBABWE**

Tokwe Mukosi Dam

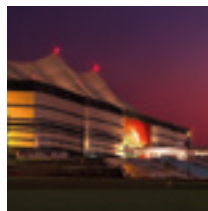
**2019**



**DENMARK**

Cityringen Metro Line

**2021**



**QATAR**

Al Bayt Stadium

**2023**



**ROMANIA**

Braila Bridge



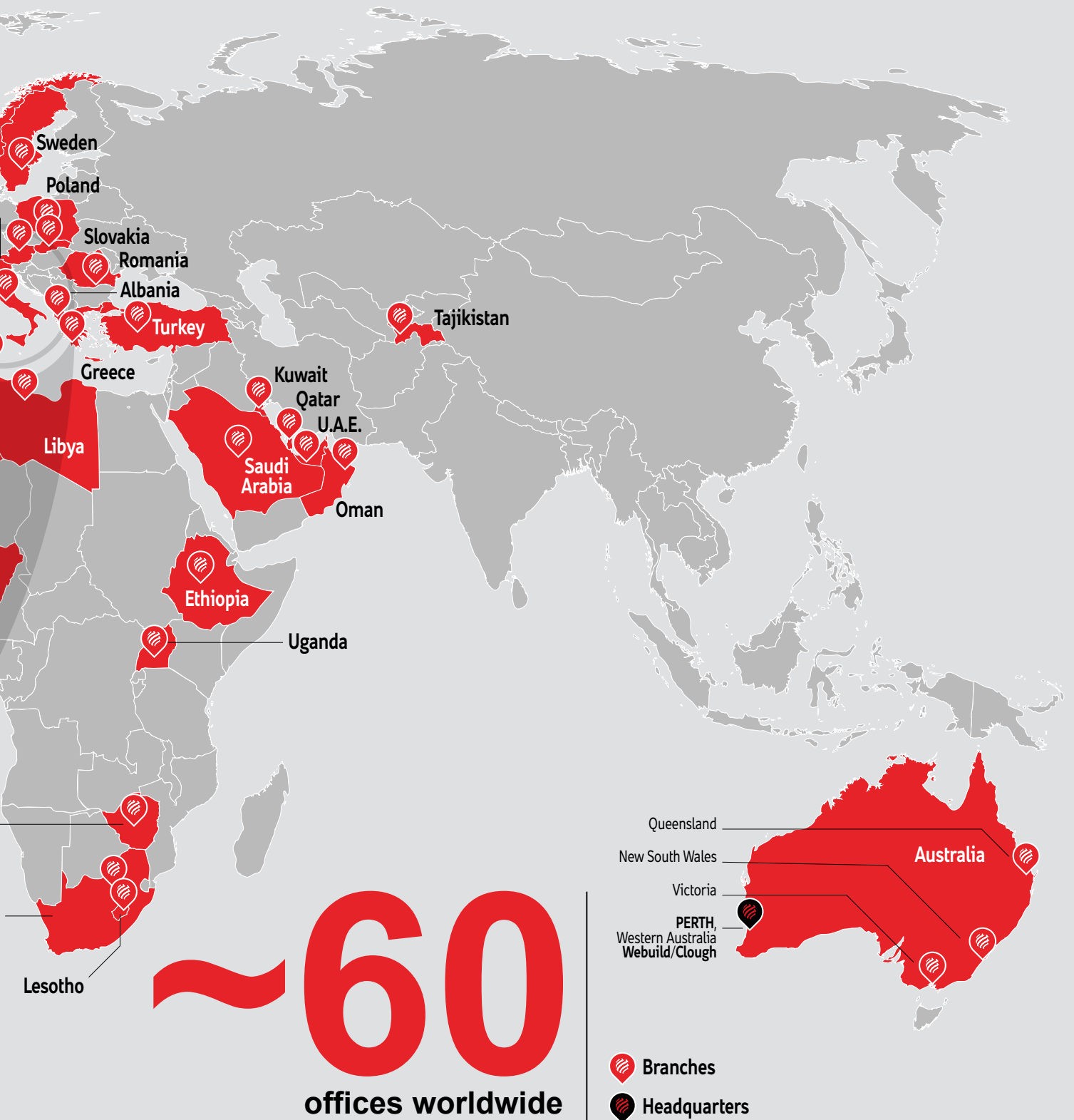


# 10

## LANDSCAPE

# Global footprint





**Webuild S.p.A.**

www.webuildgroup.com

www.webuildvalue.com

**Project coordination**

Webuild Corporate Identity, Communication and Institutional Affairs

**Credits**

Webuild Image Library

**Photos by**

Moreno Maggi for Webuild

Edoardo Montaina for Webuild

Filippo Vinardi for Webuild

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