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webuild group

sustainability

April 2021

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#WePromote a Sustainable World

WE CONTRIBUTE TO IMPROVING THE LIVES OF PEOPLE AND THEIR COMMUNITIES WHEREVER WE WORK

~87 M
people
benefiting from ongoing Group projects

WORLDWIDE

Sustainable mobility
32.2 M
people served

Clean hydro energy
23.7 M
eq. residents served

Clean water
17.1 M
eq. residents served

Green buildings & others
13.7 M
people served

WE SUPPORT THE ADVANCEMENT OF SDGs

7,000+
additional **hospital beds**

857 M
m³ of **treated water** daily

14,400+
MW of new **renewable energy** installed

55%
high-speed's travel time average reduction

3.2 M
avoidable car journeys per day thanks to metro projects

21 M
t CO2 avoidable per year

All data refer to future beneficiaries of the Group's ongoing projects, including Astaldi

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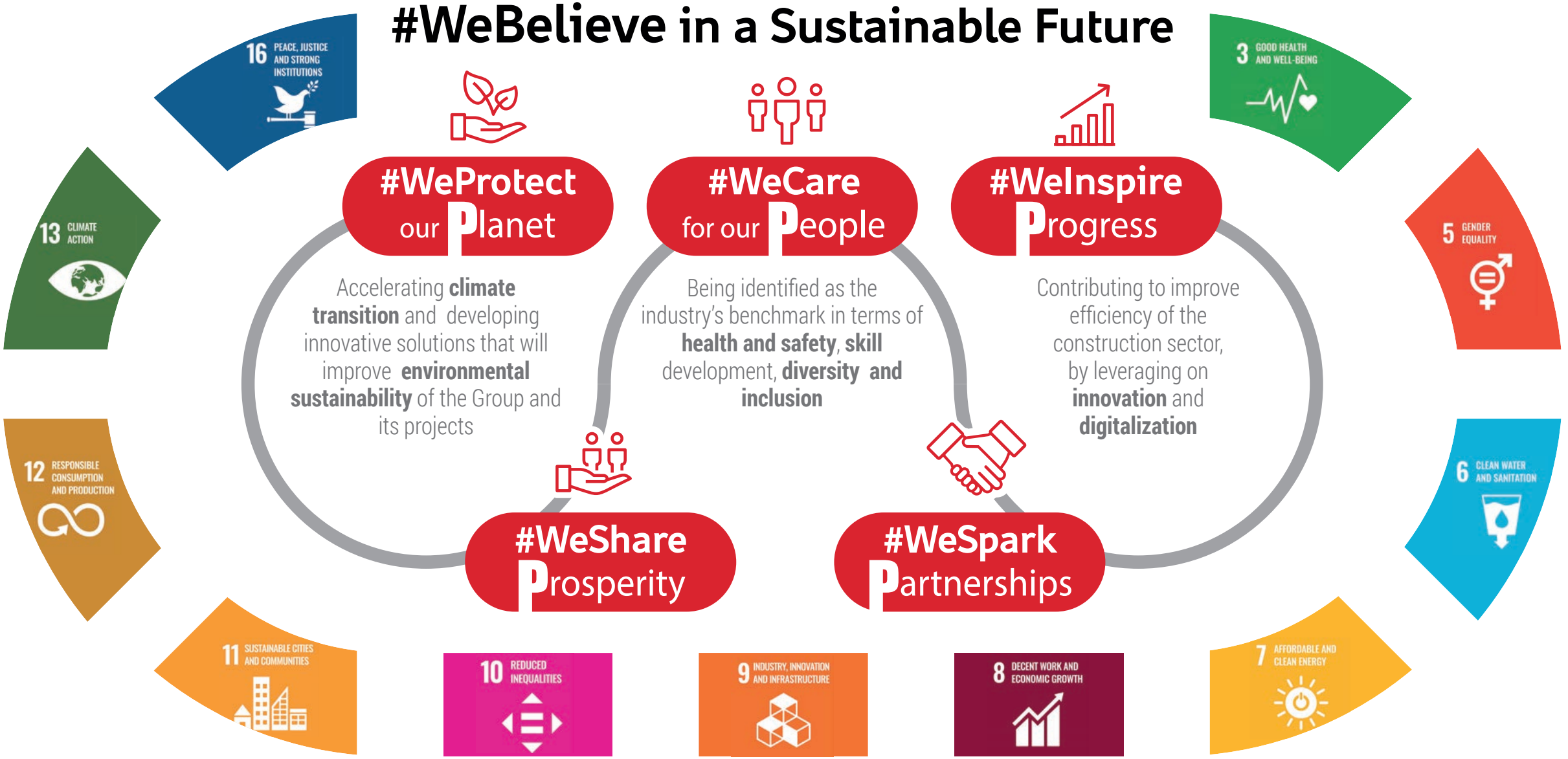
#WeBelieve in a Sustainable Future



#WeProtect our Planet

Accelerating **climate transition** and developing innovative solutions that will improve **environmental sustainability** of the Group and its projects

#WeCare for our People

Being identified as the industry's benchmark in terms of **health and safety**, **skill** development, **diversity and inclusion**

#WeInspire Progress

Contributing to improve efficiency of the construction sector, by leveraging on **innovation** and **digitalization**

#WeShare Prosperity

#WeSpark Partnerships

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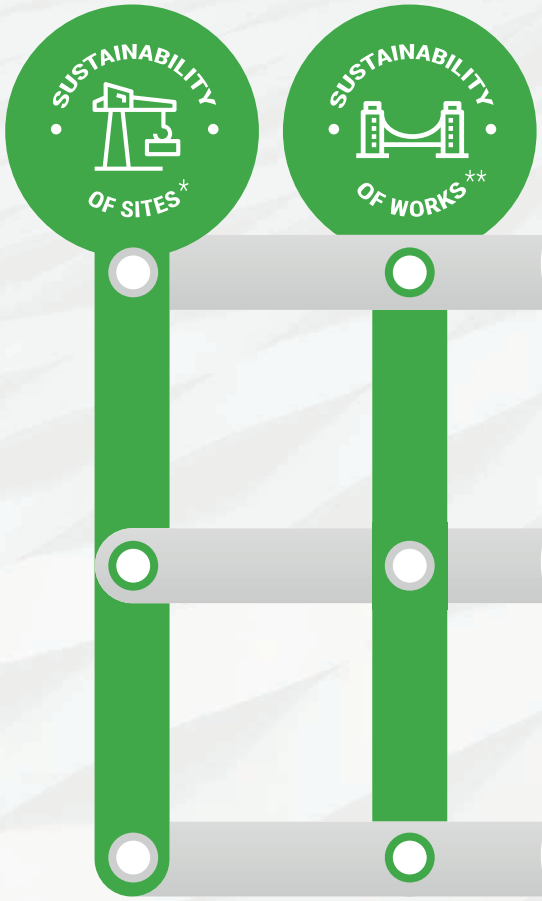
#WeInvest in Sustainability

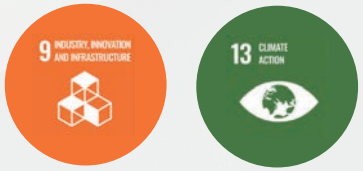
We invest in **3 sustainability "construction sites"** with programmes and ESG targets for the next three years.



Green Builders

Safe and Inclusive Builders

Innovative and Smart Builders



* Construction phase ** Operational phase

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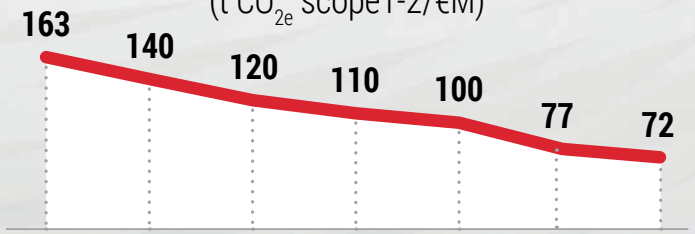
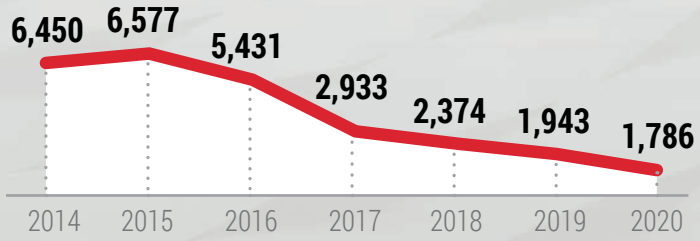
Green Builders

Carbon intensity
(t CO_{2e} scope1-2/€M)



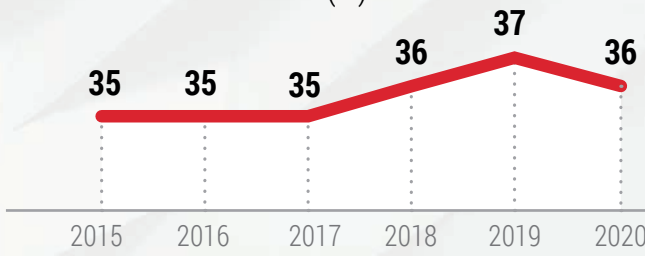
Water intensity
(m^3/€M)



Safe and Inclusive Builders

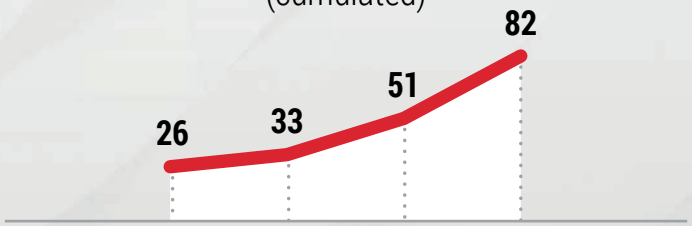
Lost time injury frequency

Women working at HQ
(%)

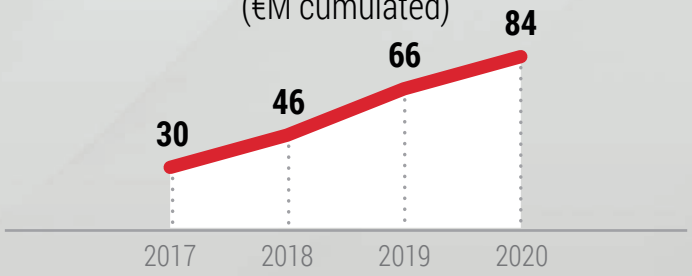


Innovative and Smart Builders*

Developed innovative solutions
(cumulated)



Investments in innovation
(€M cumulated)



WEBUILD'S TRACK RECORD

OUR ESG TARGETS**

-35%
Carbon intensity Scope1&2
(2022 vs 2017)

-40%
Lost Time Injury Frequency (LTIFR)
(2022 vs 2017)

20%
Female identified in key roles' succession planning
(by 2023)

+30 M €
Additional investments in high-potential innovative projects
(by 2023)

Scope1: emissions from fuels
Scope2: emissions from electricity

LTIFR indicates the frequency index of injuries with days of absence

** The targets indicated take into account the impact of Astaldi's consolidation in the Webuild Group

* Webuild data, Astaldi not included

Green Builders

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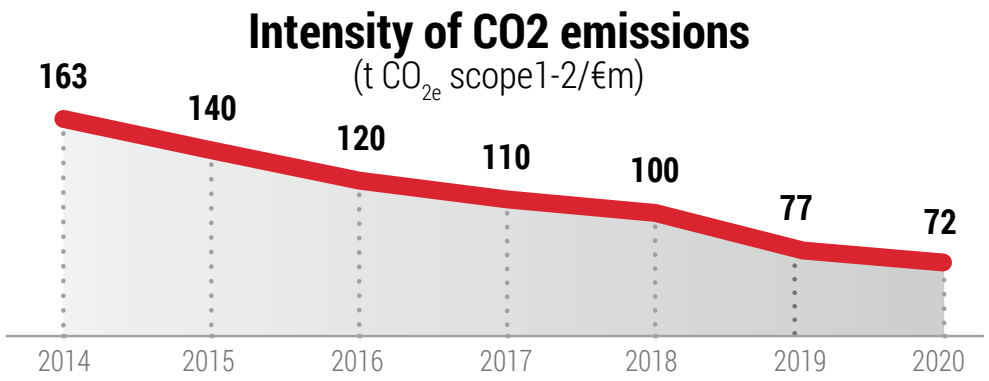
ENERGY AND CLIMATE

WEBUILD'S ACHIEVEMENTS

Constant reduction in CO_2 emissions

-56% (2020 vs 2014)



Increased investment in *low-carbon* solutions

≈50
Solutions
tested and implemented in the last 3 years

170k t CO_{2e}*
Avoided emissions
in last 3 years with low-carbon solutions

Webuild Solutions

Power quality for electricity systems

Central station to supervise and stabilise electricity supply

Reduced consumption

Efficient machinery

Highly efficient catalitic systems

Reduced consumption and pollution

Automated conveyor belt for materials transport

Conveyor belts for earth removal

Elimination of trucks and related pollution

Highly efficient tunnel ventilation systems

Air quality sensors

Reduced consumption and improved comfort

* CO2e = CO2 equivalent

Green Builders

SUSTAINABILITY OF SITES

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ENERGY AND CLIMATE

WEBUILD'S COMMITMENT

Sustainable Construction Sites

Webuild solutions for clients wanting net zero construction sites

Integrated approach to ***carbon neutral*** **solutions**

Innovation in construction techniques and technology

Renewables used extensively (on site and off site)

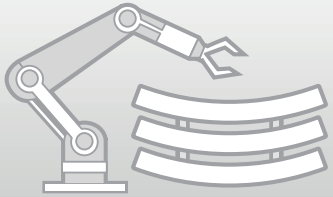
Webuild solutions in development

Green TBM

Optimise onboard TBM systems

Reduced water and energy consumption

Robotic green precast



Pre-cast concrete tunnel segment plant

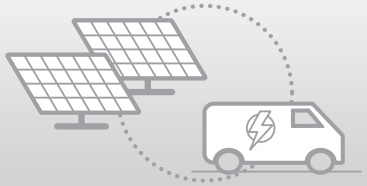
Reduced lifecycle footprint of segments

Preventive maintenance of temporary installations

Sensors and artificial intelligence to anticipate repairs

Reduce consumption and running costs

Renewables and low-carbon vehicles



Solar panels, mini-hydro, storage, hybrid/electric vehicles

Reduced consumption and emissions

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ENERGY AND CLIMATE

WEBUILD'S ACHIEVEMENTS

Consolidated experience in projects with high **standards in certified sustainability**

LEED · GSAS · ISCA · ENVISION

Dozens of completed **resilient and low carbon projects**

Resilience
Re-engineered projects with climate risk assessment

Low carbon
Project solutions for reduced *embodied carbon*

Completed Webuild projects

Sidney Metro NorthWest

Re-engineered project for climate in 2100

Reinforced support structure, expanded rain discharge system

Re-engineered permanent materials

Reduced footprint material by 1/3 (-33%)

Ponte San Giorgio

Re-engineered project for climate in 2100

Strengthened structure for wind resistance and water discharge

Permanent installed systems

Service system and diagnostic robots powered by solar panels

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ENERGY AND CLIMATE

WEBUILD'S ACHIEVEMENTS

Sustainable infrastructure
Webuild solutions for net zero infrastructure

Integrated approach to develop **carbon neutral *design solutions***

Innovation in planning methodology

Materials and renewable energy

Webuild solutions in development

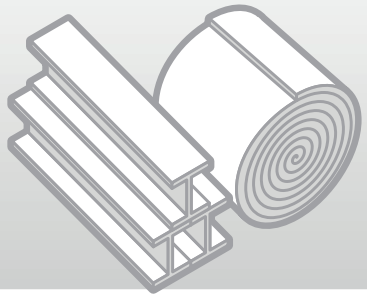
Lifecycle design

POLITECNICO DI TORINO

Research into developing software to calculate carbon footprint at the design stage

Reduce carbon/energy footprint throughout the life cycle of the infrastructure

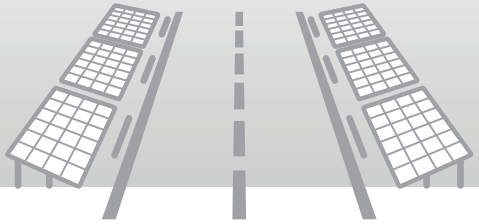
Low carbon materials



Research and development of materials, mixtures and compounds with high level of recycled ingredients/low virgin material content

Reduced embodied carbon materials

Self-sufficient permanent installations



Research and development of renewable installations to power per permanent systems

Reduced energy consumption for functioning of public work

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SAFETY

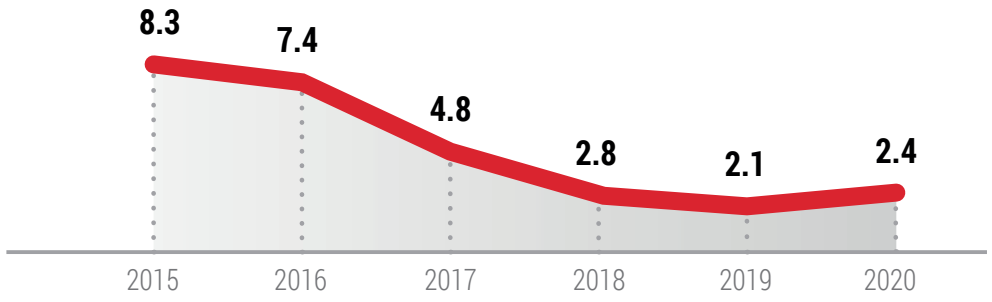
Safe and Inclusive Builders

WEBUILD'S ACHIEVEMENTS

Constant decline in rate of accidents

-71% reduction in LTIFR* index (2020 vs 2015)

Lost Time Injuries Frequency



Increased investment in *safety*

Leadership
Programme to turn employees into *safety leaders*

* LTIFR index of frequency of daily absences due to an accident.

Webuild programmes implemented

Safety Builders Program

valyOu
Our Health and Safety Way

2020 ROSPA Gold Award

Training program and internal communication, from the Board of Directors to employees

Valyou - Safety Builders Program 2018 - 2020

- **20+** work sites and offices
- **1,800+** managers and supervisors involved
- **130+** workshop
- **≈10,000** Hours of training

World Safety Days 2016 - 2019

- **14,600** participants
- **130** work sites
- **1,354** photos
- **193** videos

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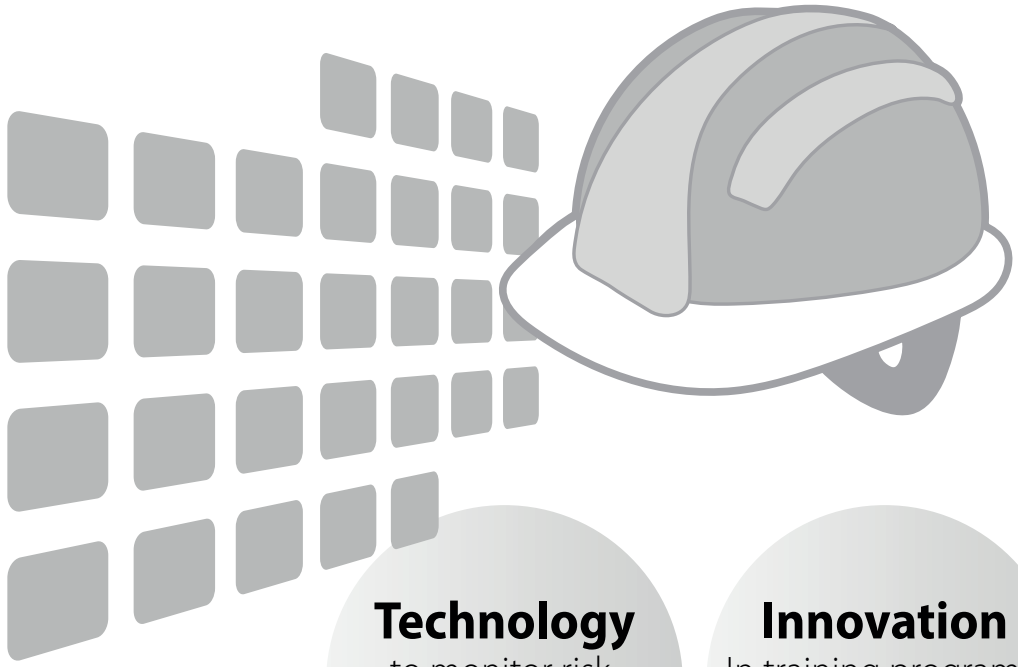
SAFETY

Safe and Inclusive Builders

WEBUILD'S COMMITMENT

Safe construction sites

Webuild solutions for zero injuries on construction sites



Technology
to monitor risk on work sites

Innovation
In training programs and technical communication

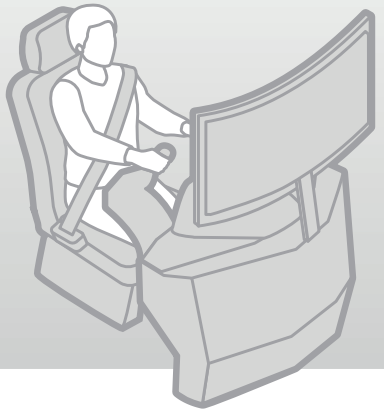
Webuild solutions in development

Smart safety

Technological development (sensors for vehicles, scaffolding, helmets, equipment) to collect in real time data on possible risks (collisions, falls…) and alert workers

Reduce accident rate

Innovative safety training



New technical and communication programs for construction workers using simulators and 3D-4D technology (vehicle simulators)

Better training and risks reduction

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INCLUSION

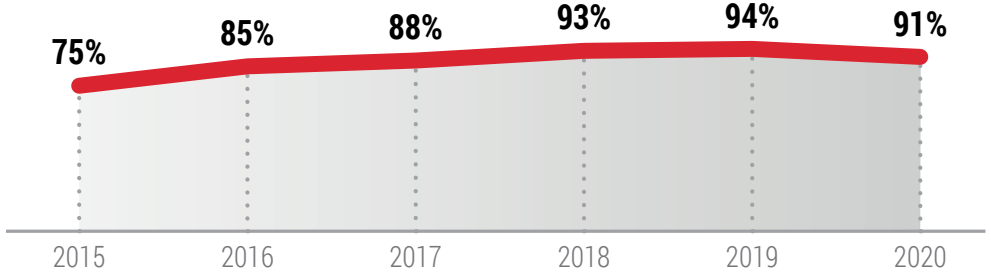
Safe and Inclusive Builders

SUPPLY CHAIN INVOLVEMENT

70,000
Average direct and indirect global workforce

15,000+
Suppliers from 70 countries

Purchases from local suppliers



82%
Workers hired locally

36%
Women working at headquarters

100+
Nationalities among workers on construction sites

Economic impact on areas where projects are being built

Webuild policy to rely on local workers and suppliers to support economy of areas where projects are being built

8x
Jobs created for every direct Webuild employee*

€3.5x
GDP generated for each euro of added value

≈3
Income multiplier for every euro paid in salary by Webuild

≈8
Tax income multiplier for every euro paid in tax by Webuild

* Values refer to Group's main markets based on input-output matrixes

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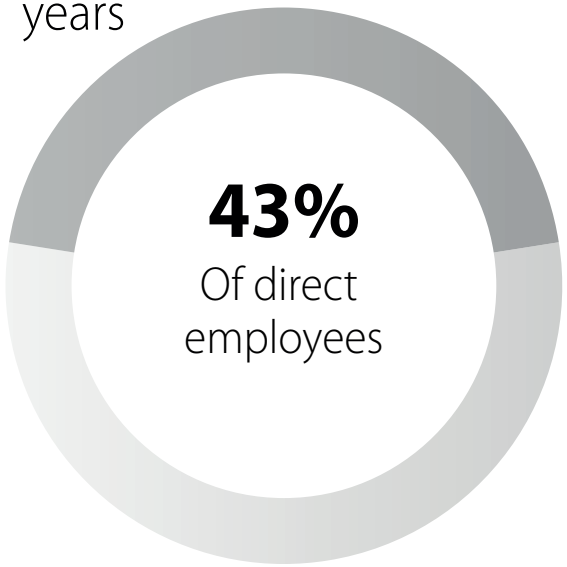
INCLUSION

Safe and Inclusive Builders

TALENT INCLUSION

Under 35
years



Dedicated Programs
to include young talent

Inclusion criteria
in research, development and evaluation of performance

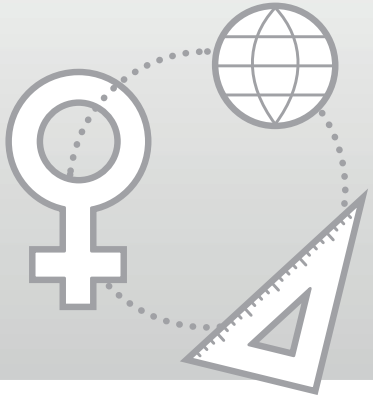
Webuild programmes implemented

Universities

Università Commerciale Luigi Bocconi
UTS
POLITECNICO MILANO 1863
THE UNIVERSITY OF MELBOURNE
Università di Genova

Partnerships and collaboration programs with domestic and foreign universities to support strategic markets and provide training for employment at Webuild with a focus on young women in STEMs

Inclusion programs



New training and internal communication programs to for young talent, women and new colleagues (ie. Astaldi), with a focus on age, gender and culture inclusion

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INNOVATION

Innovative and Smart Builders

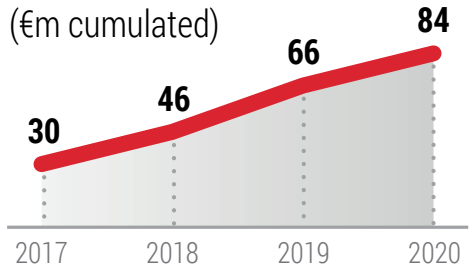
INVESTMENT IN INNOVATION

250+

Average number of employees per year dedicated to innovation, R&D

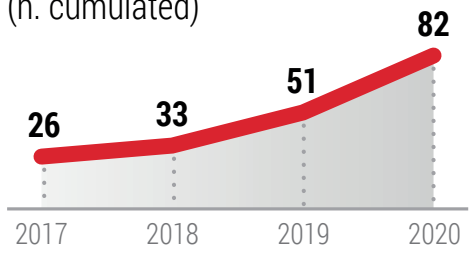
Investment in innovation

(€m cumulated)



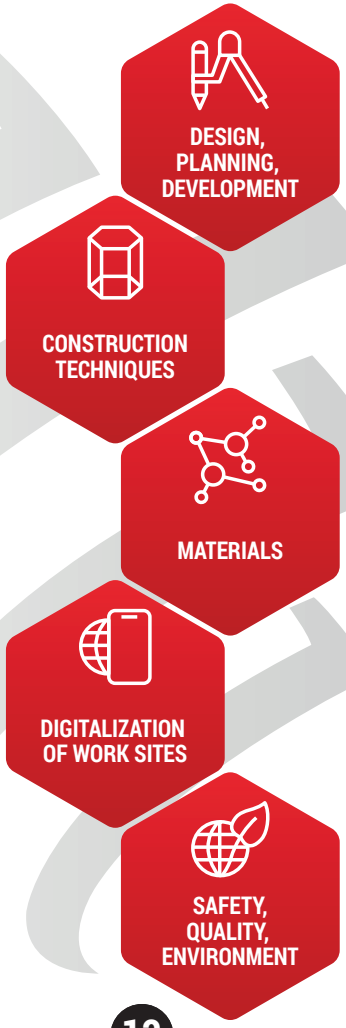
Developed innovative solutions

(n. cumulated)



Webuild's approach

Innovation at all of the stages of the business process



Some Webuild solutions

- Techniques to reuse TBM materials
- Vertical Risers (Vertical pipe-jacking)
- Tailor-made concrete mix design
- TBM and plants monitoring system
- Intelligent Biodiversity Monitoring

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Ratings achieved in 2020

MSCI ESG

Rating
A

CDP Climate

Rating
B

ISS ESG

Rating
Prime

VigeoEiris

Rating
Advanced

Ecovadis

Rating
Gold

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Our best practices in sustainability

POWER QUALITY IMPROVEMENT

We have developed, tested and implemented **technology to make electric systems at work sites more efficient** to reduce energy consumption, CO2 emissions and operating costs

Energy Monitoring System

- Monitoring of electricity currents
- Data collection on server

Energy Management and Data Analytics

- Analysis of energy consumption
- Identify ways to improve efficiencies

PQI technologies

- Technology installation
- Test and analysis of results

Analysis / Validation of results

9% Reduction of CO2 emissions

9.1% Reduction in energy consumption

10% in cost savings

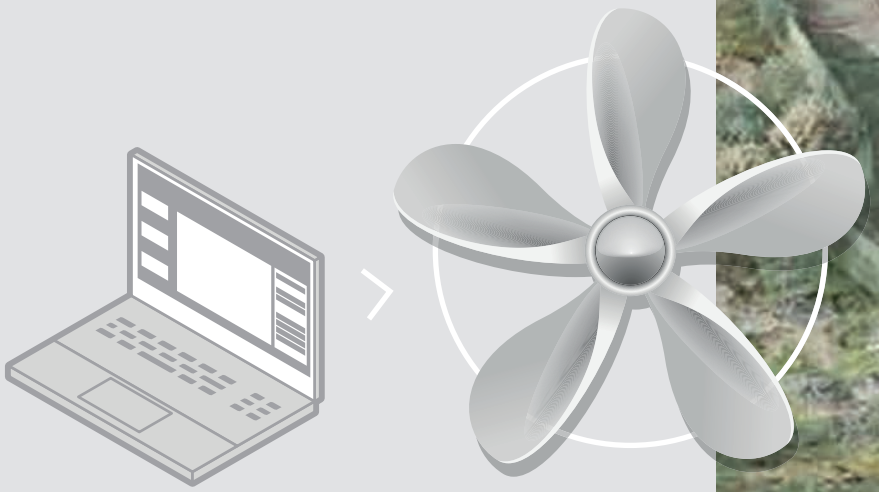
Phase 1 | Phase 2 | Phase 3 | Phase 4

Implementation

- **Brennero Base Tunnel**
- **New projects in start-up phase in Italy**
- **Multi-sector**

SMART AIR MONITORING SYSTEM

The system **controls the ventilation and air quality in the tunnel**, enabling the plants to **operate at the required rather than maximum level**. It provides optimal comfort and an efficient use of energy.

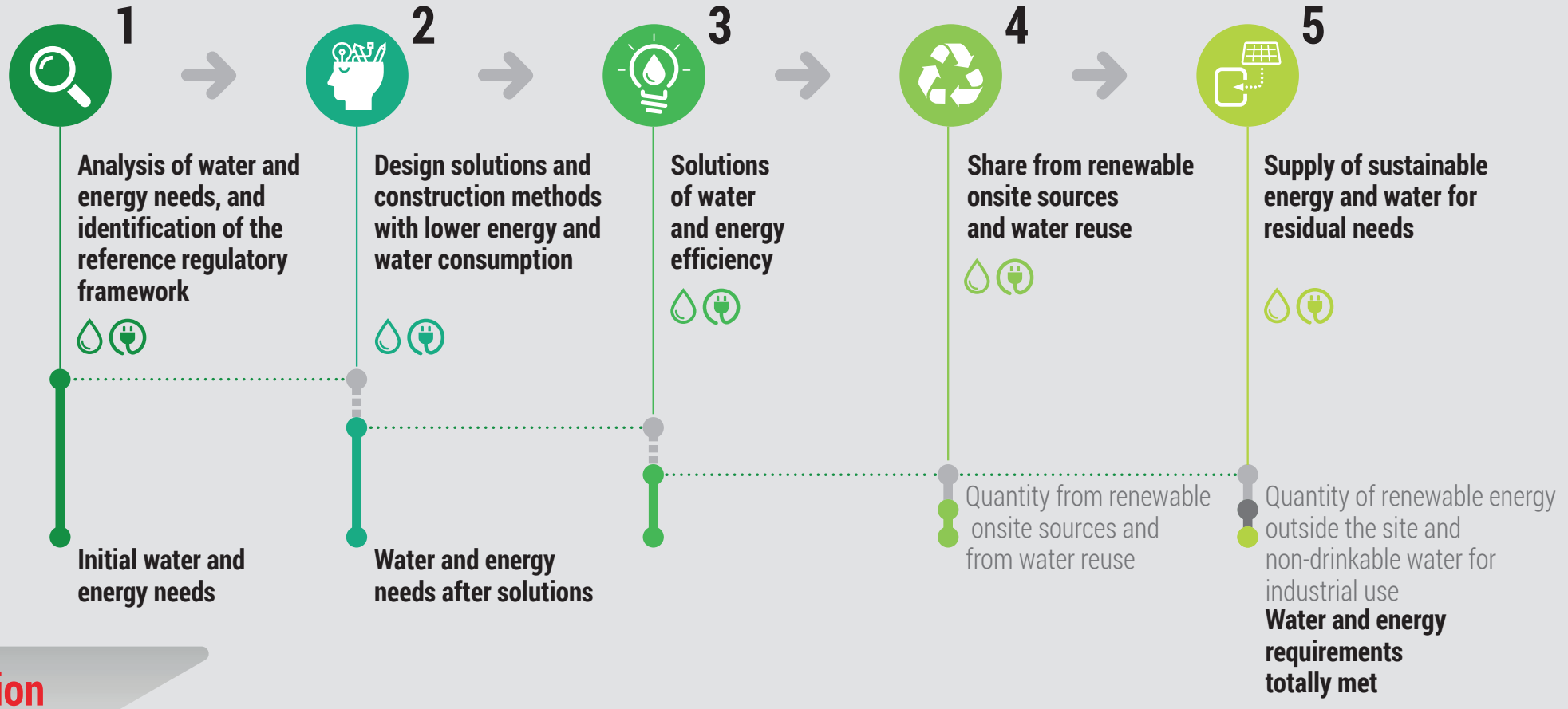


Implementation

- **Rogun hydropower dam, Tajikistan**
- **New projects in start-up phase in Italy**
- **Multi-sector**

SUSTAINABLE SITE

Webuild designs and implements construction sites used to build its infrastructure, by subjecting all industrial processes to the **assessment, efficiency and optimization** of environmental components, particularly **water, energy and material consumption.**

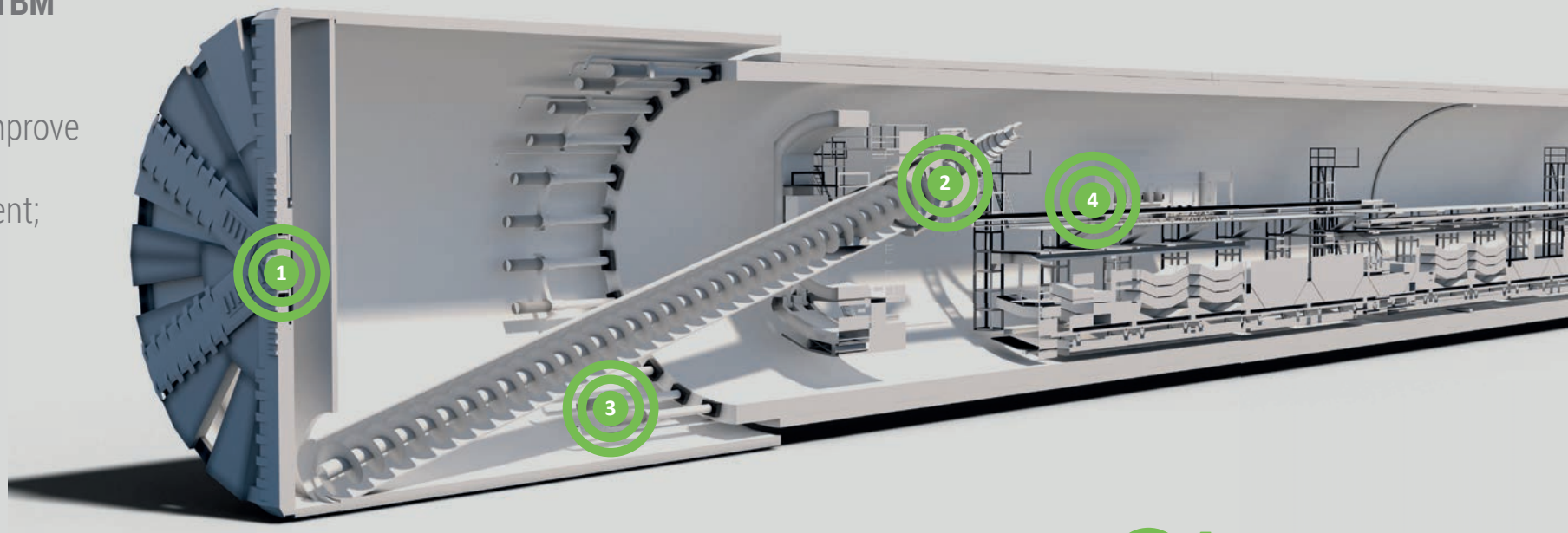


Planned Implementation

- New projects in start-up phase in Italy
- Multi-sector

GREEN TBM

Study of the use of an **green TBM** capable of reducing the **energy consumption of the TBM** (KWh) **by 20%**.
This is possible by optimizing the various systems and devices on the machine to improve the efficiency of the excavation and all the numerous functions and auxiliary equipment; the result is a reduction in the energy consumption, faster excavation times and increased safety.



Planned Implementation

- **Gardena Bridge**
- **Fiumefreddo-Giampilieri rail section:**
- **Lot 2**
- **Naples-Bari HS/HC railway line:**
- **Orsara-Bovino Lot**
- **Hirpinia-Orsara Lot**

~20%
Reduction of energy consumption

Energy efficiency measures

1. Energy
2. Muck transport
3. Hydraulic system
4. Other services

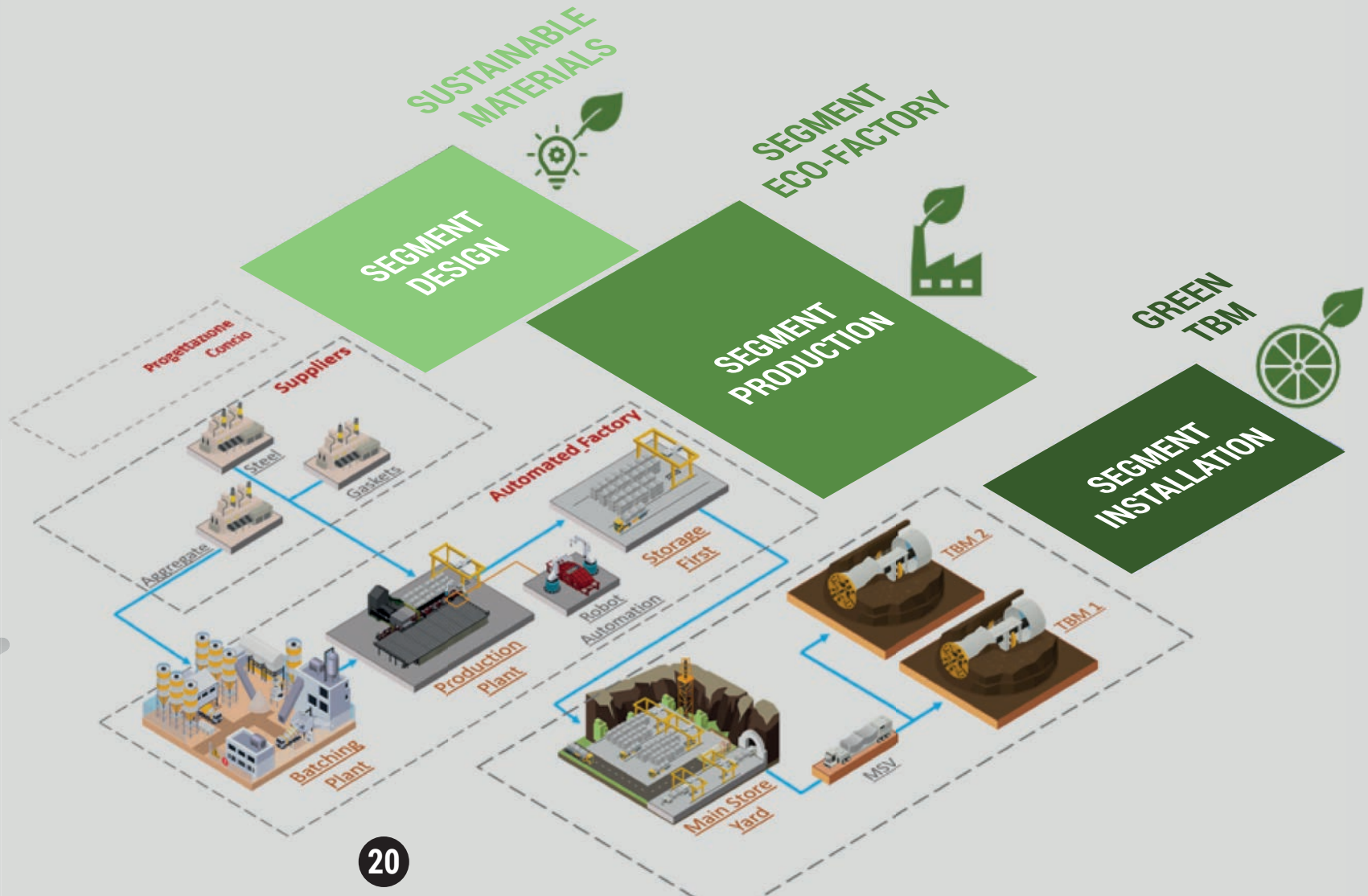
SMART&GREEN SEGMENT FACTORY

Automated system that uses **high-efficiency** robotic technology with a systematic integration of innovative solutions, efficiency, circular economy, environmental footprint reduction, and the development of a more resilient and performing product.

The **robotic factory can be dismantled and reinstalled** in another area, according to a design-for-deconstruction perspective.

Planned Implementation

- **New projects in start-up phase in Italy**
- **Multi-sector**



REDUCTION IN EMBODIED ENERGY

Thanks to **Design Optimization**, Webuild can **reduce the use of prime materials**, such as concrete and related CO2 emissions.

>58,000 fewer tons of concrete used

-33% smaller material footprint

2,800 ton of avoided CO2 emissions

Implementation

- **Sydney Metro Northwest, Australia**

ROBOT MONITORING / CLEANING

Two types of **robots** with innovative applications: an **inspection robot** that scans and monitors the steel surfaces of the external deck to ensure the highest levels of control and safety; a totally eco-sustainable **robot-wash** used to clean the glass and photovol taic panels on the deck.
This application allows an optimization of control activities, by reducing their frequency and increasing their reliability at the same time.
This solution increases the work's safety and reliability, also reducing management costs.

Implementation

- **San Giorgio Bridge - Genoa**

INNOVATIVE MATERIALS

Draining backfill material for TBM tunnels, to reduce external hydraulic loads. These materials also allow a structural optimization and an increased durability of the work.

Ultra-high performance backfill grout for TBM. This material increases the work's ultra-high performance back fill grout and reduce construction risks.

Planned Implementation

- **HS / HC Naples-Bari rail line, Apice-Hirpinia section**

Implementation

- **Snowy 2.0 Hydropower project, Australia**

SMART SAFETY

Pilot projects with **sensor systems** for: interaction between human and machine, and/or human and suspended loads, delimitation of more dangerous areas, in-Vehicle Monitoring Systems. Construction-site vehicles equipped with cameras and white noise buzzer.

Implementation *

Multi-sector

* potential

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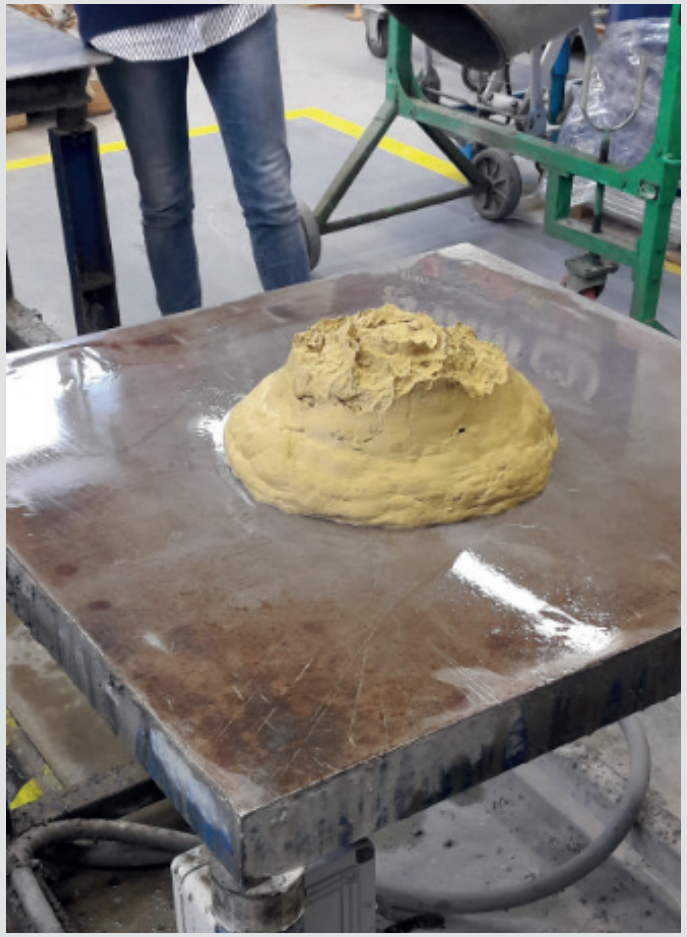
TBM MATERIAL REUSE TECHNIQUES

Study concerning the **reuse of materials excavated by the TBM**, as embankment materials to decrease the environmental impact and project costs, from a circular economy perspective.



Implementation *

Multi-project

* potential

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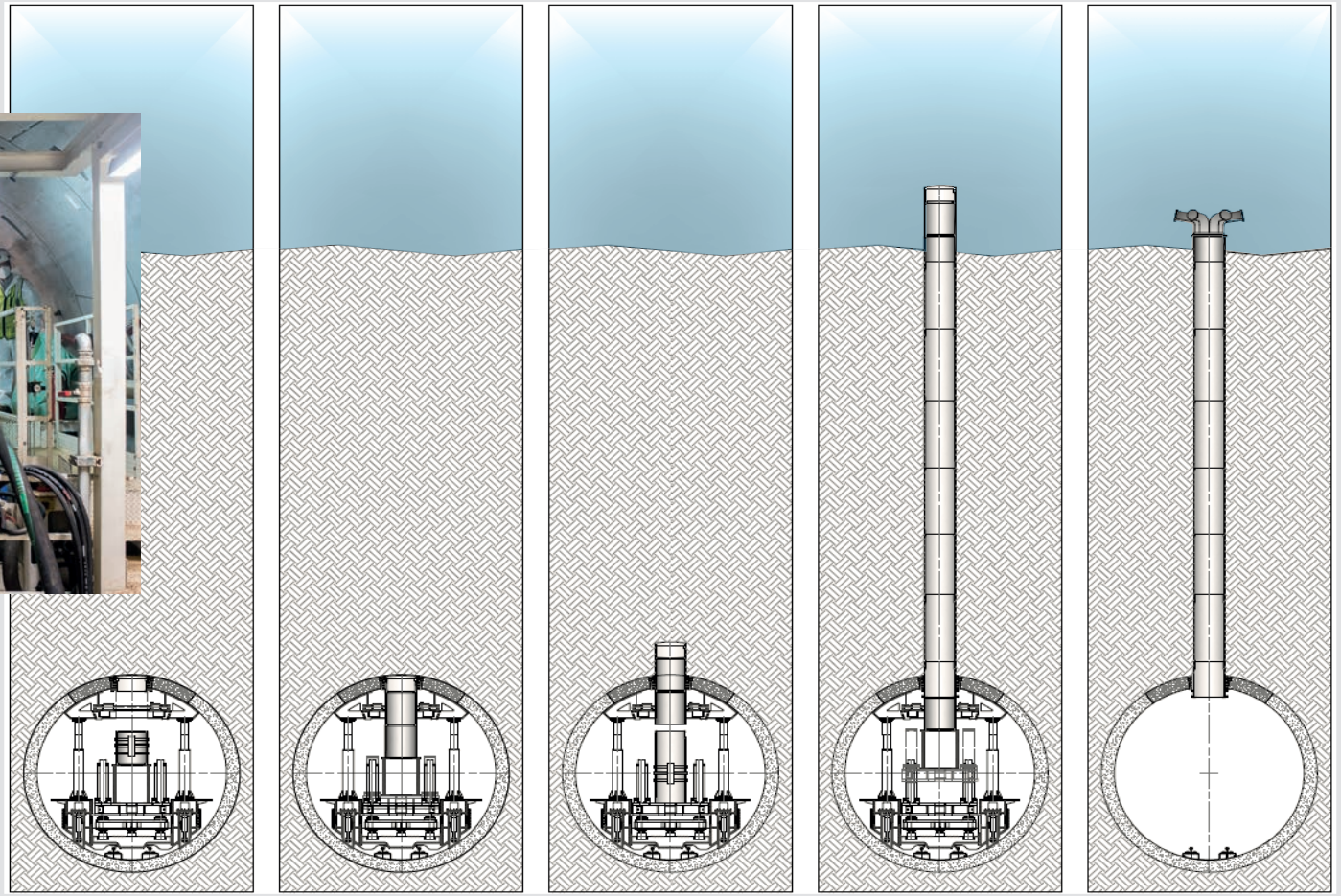
VERTICAL RISERS (VERTICAL PIPE-JACKING)

This innovative **methodology**, was **used for the first time** in the world **by Webuild**, to install **vertical risers (vertical pipe-jacking)**, operating from the inside of a submarine tunnel, allowing the mechanization of the work process, also improving workers' safety, reducing risks and bringing environmental benefits and improved construction times.



Implementation

- **Riachuelo environmental restoration system, Argentina**
- **Multi-project**

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TAILOR-MADE CONCRETE MIX DESIGN

Concrete mix designs, and their related production processes, are **developed** and optimized **by Webuild**, even in poorly served areas. This is done to fully meet the technical specifications, also considering executive issues, durability, logistic organization, and transport optimization. And also, material usage, environmental protection and territorial con text matters.

Implementation

- **GERD Dam, Ethiopia**
- **Koysha Dam, Ethiopia**
- **Neckartal Dam, Namibia**
- **Multi-sector**

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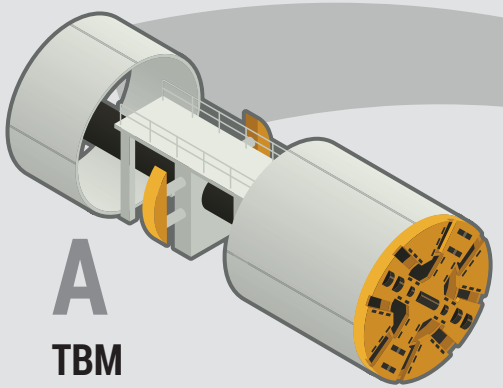
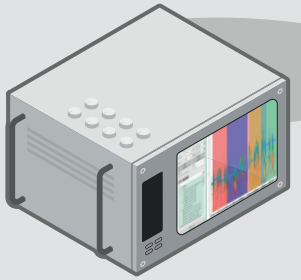
TBM AND PLANTS INTEGRATED MONITORING SYSTEM

An **Integrated System** has been designed and developed to collect, process and display, in real time, all the data collected by the TBM, and all systems and equipment used on site, including monitoring ones. **The system collects** information from different sources in the site, transforming **disaggregated data** into information available in a single control room, which is then integrated and can be used.

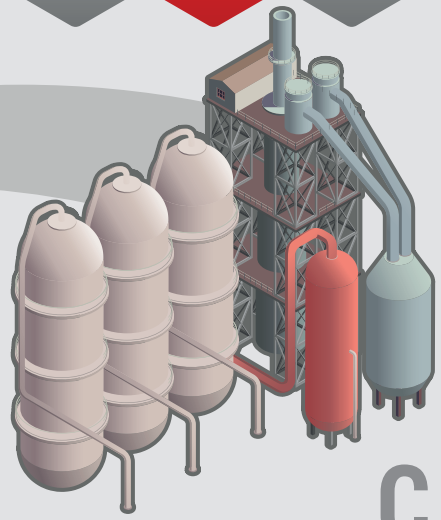


A
TBM control systems

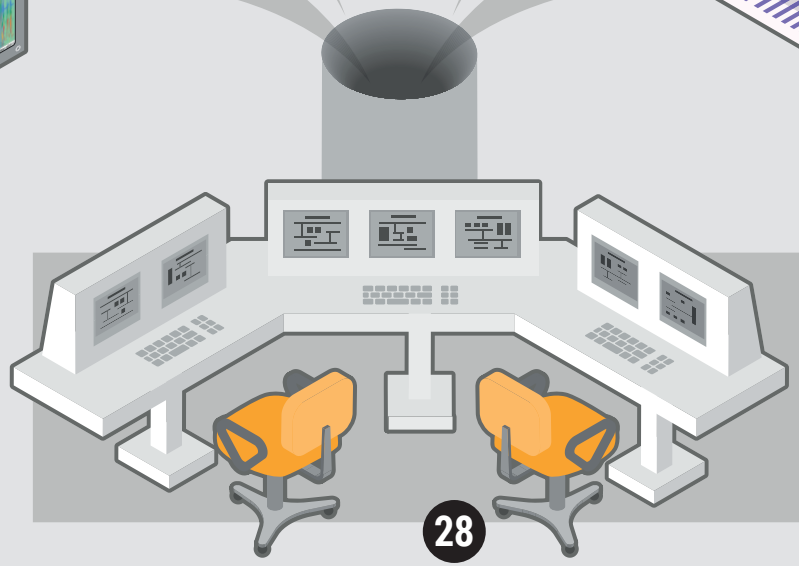


B
Other TBM systems

D
Additional data/documents, external to the monitoring system



C
Other systems and machinery

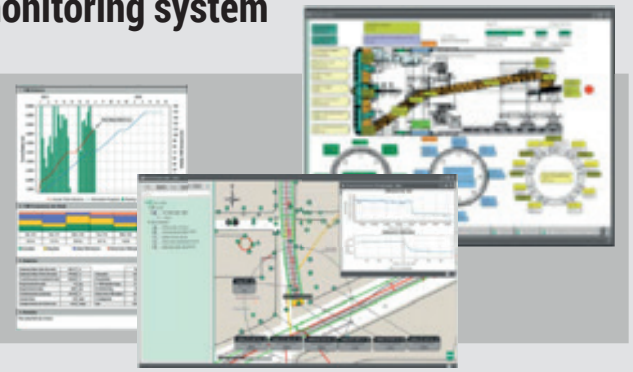


Implementation

- **Snowy 2.0 Hydropower project, Australia**

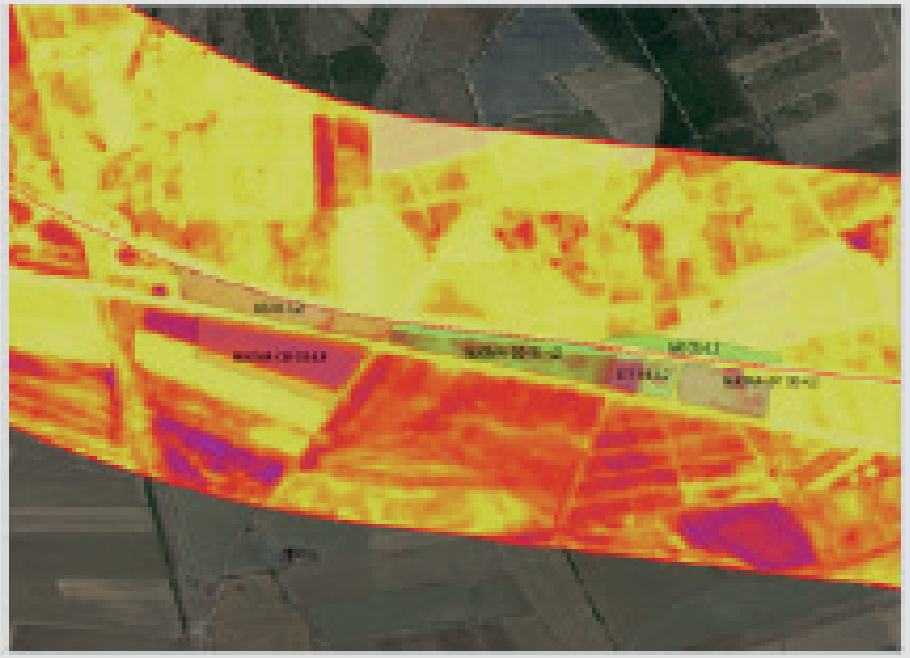
Multi-project

Interrelation between operations, production, geological data, and other parameters



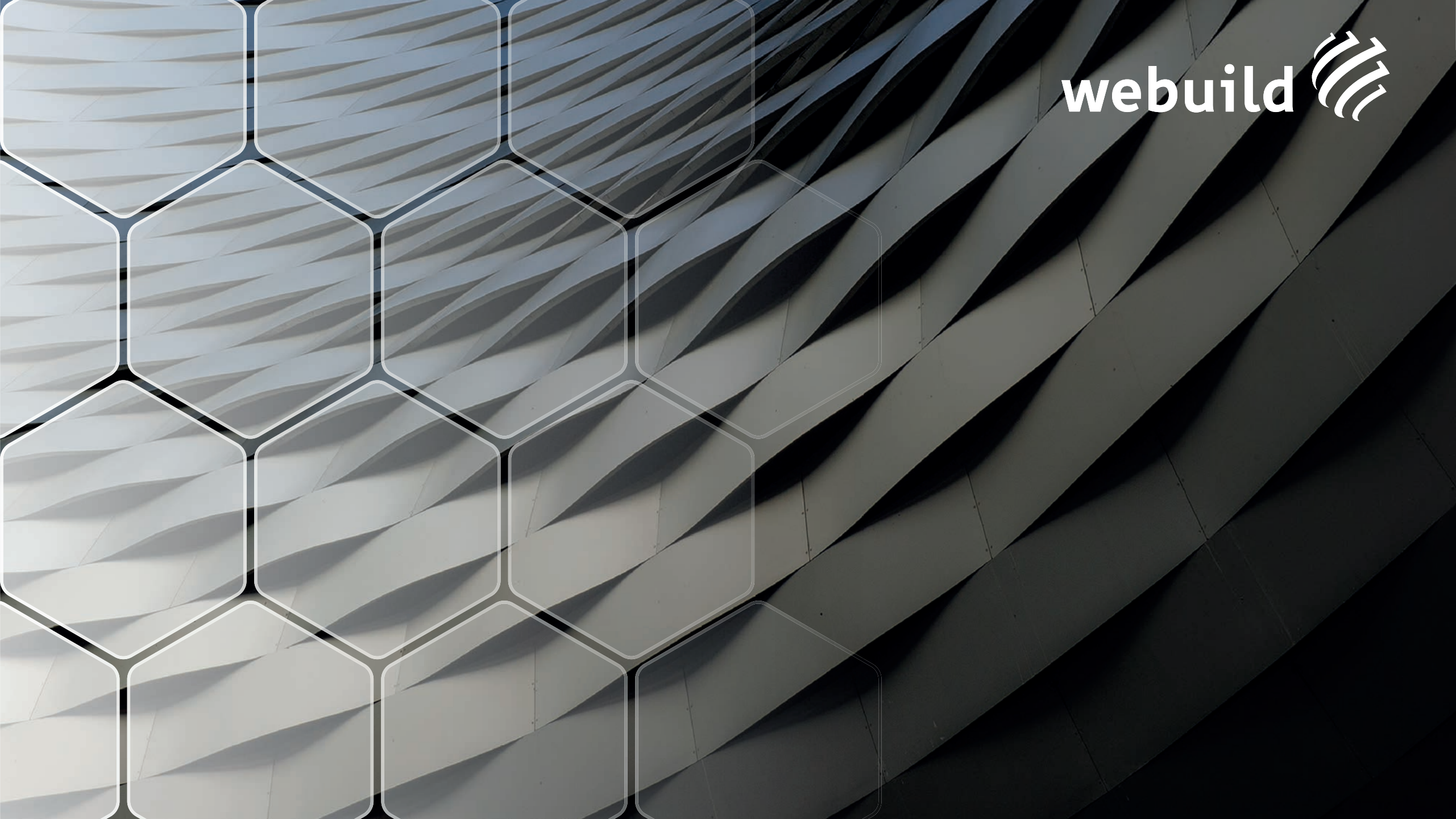
INTELLIGENT BIODIVERSITY MONITORING

Webuild **protects the territory** that hosts its construction sites establishing a close relationship with it. It does this with it, achieved through best practices -also innovative and smart- to safeguard the territory's peculiarities, fauna, flora, and biodiversity. Among the activities carried out: monitoring valuable crops through a satellite multispectral analysis; use of motion detection cameras for wild-life monitoring purposes.



Implementation

- **Bicocca-Catenanuova rail section**
- **Multi-sector**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