

the essential 2019

**ready
for the
resource
revolution**



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leading the resource revolution
to ensure sustainable growth

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to people and the planet

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SUEZ at a glance

we help cities
and industries manage
their resources smartly
and sustainably

our fields of activity



engineering,
design and
construction
of treatment
infrastructure



smart and sustainable
management
of the water cycle,
smart water solutions



smart solutions
to shape
tomorrow's cities



recycling and waste
recovery to produce new
materials and energy

€17.3 billion
turnover in 2018

88,775
employees

on **5**
continents

€120 million
invested in R&D

27.6%
of women in management

4.4 million
tons of secondary raw
materials produced

7.7 TWh
of renewable energy produced

1.1 billion
cubic meters of wastewater reused

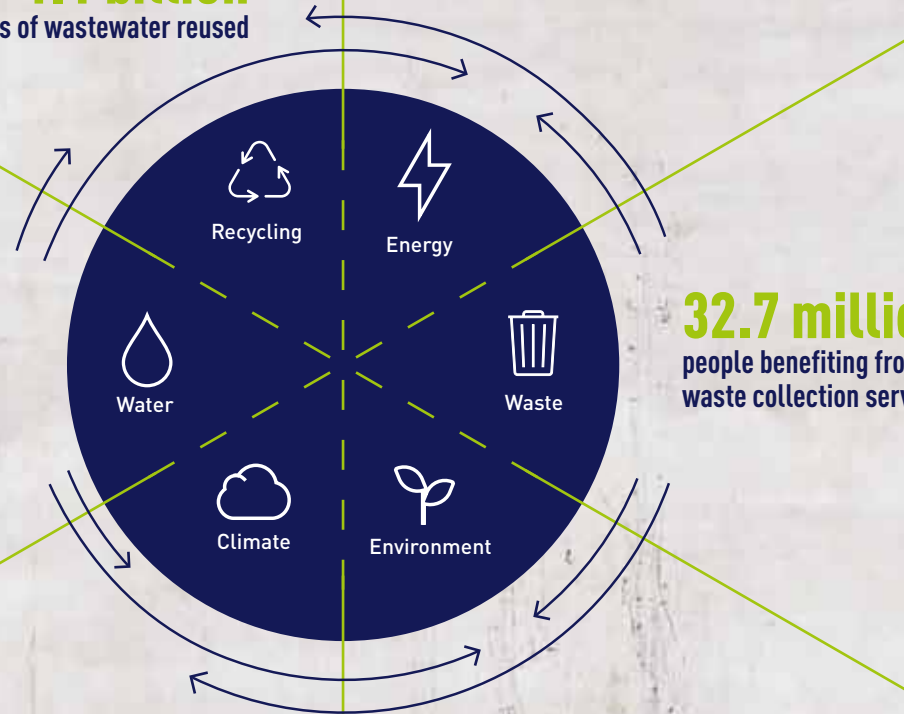
7.6 billion
cubic meters
of drinking water produced

3.7 billion
cubic meters of drinking
water distributed

32.7 million
people benefiting from
waste collection services

10 million
tCO₂e avoided

5.1 billion
cubic meters of wastewater treated



01

our ambition:
**leading the resource
revolution** to ensure
sustainable growth

growing global population growth and rampant urbanization

60%

of the 8.5 billion people on earth will live in cities by 2030

41

mega-cities with more than 10 million inhabitants by 2030

limited resources on the planet

World need for water will exceed by 40% the available quantities by 2030

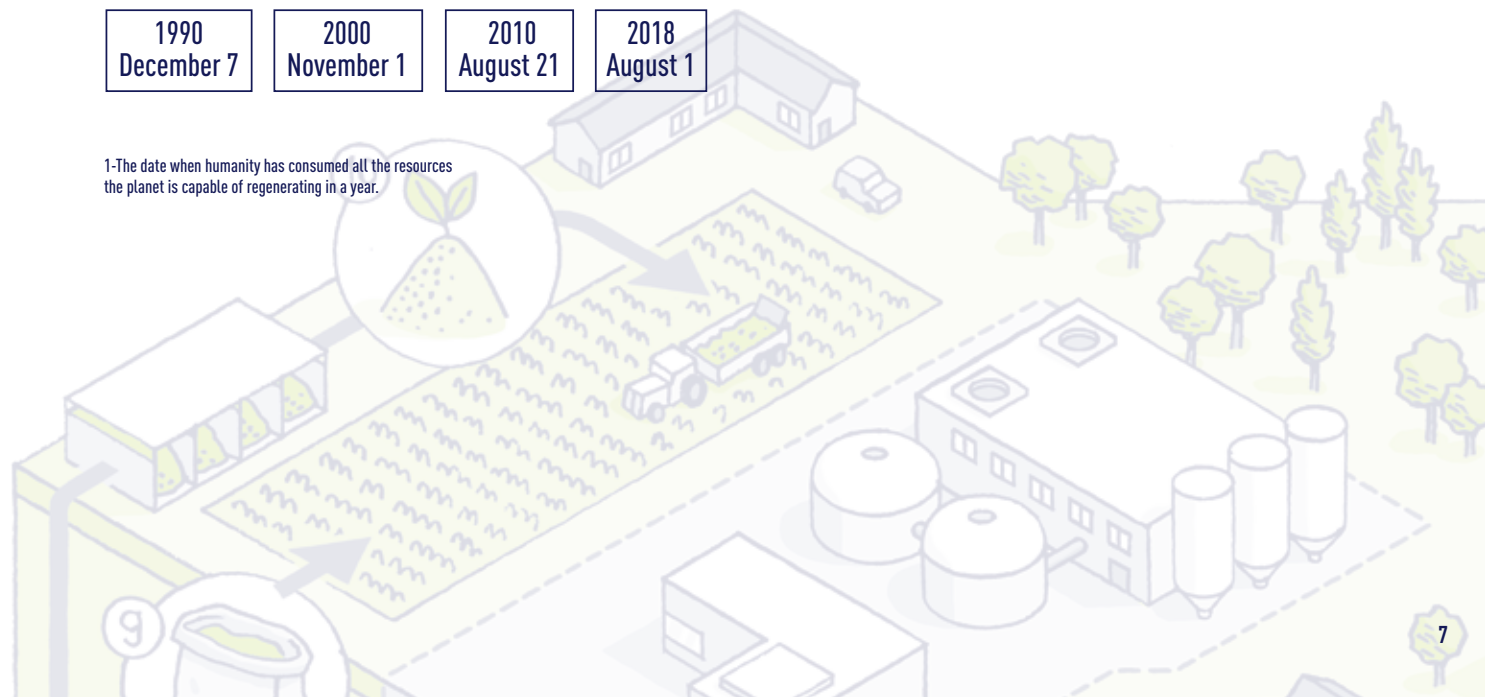
The volume of urban waste will increase by 70% by 2050

*Earth Overshoot Day*¹ earlier each year

mineral resources will be exhausted



1-The date when humanity has consumed all the resources the planet is capable of regenerating in a year.



taking on the 4 key challenges of the resource revolution

developing access to resources for everyone



by supplying people with drinking water
that is essential for health



by optimizing the collection and sorting
of waste to maximize recycling and recovery

3.7 billion cubic meters
of drinking water distributed



protecting resources and the ecosystem



by helping cities and industries
to improve the quality
of their discharge, recover sludge
as energy, reduce CO₂

optimizing the use of resources



by improving resource management
through digital solutions



by generating significant economic
and environmental savings for our customers

producing new resources



by transforming sea water into drinking water
and into energy or secondary raw materials

10 million tons

of CO₂ equivalent of greenhouse gas
emissions avoided for our customers

4.1 million

smart sensors sold

4.4 million tons

of secondary raw
materials produced

7.7 TWh

of renewable energy
produced



02

our solutions for cities:
ensuring their
sustainability
and attractiveness

shaping the resourceful city for the populations

We support cities in implementing the vision of their own future. A city that is more and more circular, resilient and collaborative.

We help cities build customized, innovative and sustainable solutions to serve their public's needs. Our aim in shaping resourceful cities is to provide higher value services for citizens, reduce environmental impact and make citizens the focus of every city.

better managing resources for sustainable growth

We help cities protect their environment and adopt a circular economy of resources through waste recycling and recovery and water management. We help them provide guaranteed and sustainable access to high-quality drinking water in quantities that can meet growing needs.

addressing climate challenges

Fighting climate change is a top priority for SUEZ, which develops solutions to tackle three challenges: to mitigate the causes of climate change, to adapt to its consequences and to build new alliances that develop climate-responsible models.



designing the 1st ever entirely self-sufficient biofactory in the world



📍 Santiago de Chile

La Farfana wastewater treatment plant, the first biofactory in the world, is one of the largest wastewater treatment plants worldwide. It helps to treat the wastewater of the 7 million inhabitants of Greater Santiago.

Awarded the United Nations Momentum for Change prize, La Farfana is run according to the principles of the circular economy.

100%

of the wastewater is recovered and converted into new resources such as biogas to generate electricity and heat, or by transforming sludge into fertilizer for local farmers

100%

of the biogas produced from the treatment sludge is reused

objectives:

0 waste, 0 environmental impact
and 0 consumption of fossil energy.

combining growth and development of a sustainable urban environment



📍 Changshu, China

To meet its economic growth, the city of Changshu is aiming to increase wastewater treatment capacity and improve sanitation services. SUEZ Group supplies drinking water and provides municipal and industrial wastewater treatment services to over two million inhabitants.

SUEZ and its partners own and operate four wastewater treatment plants. As part of the joint venture Jiangsu Sino French Water, SUEZ will also be responsible for the investment, design, construction, operation and maintenance of the wastewater treatment plant of Chengdong district, with the aim of doubling its treatment capacity to reach 120,000 cubic meters/day by 2023.

The Group will also be responsible for the operation and maintenance of the industrial and domestic waste treatment plant.

875,000 cubic meters

of drinking water distributed a day

140,000 cubic meters

of municipal and industrial wastewater treated a day

2,000 tons

of waste treatment capacity per day

ensuring 24/7 access to drinking water



📍 Coimbatore and Davanagare, India

Today, 163 million Indians do not have guaranteed access to safe drinking water.

The cities of Coimbatore and Davanagare, two large textile industry hubs in the south of the country, have awarded SUEZ the contract to manage and operate their drinking water distribution system and ensure access to drinking water 24 hours a day, seven days a week.

In **Coimbatore**, SUEZ is responsible for managing and operating the city's drinking water distribution system and ensuring supply.

Customer service will also be improved with a state-of-the-art customer call center and customer agencies.

The project is the largest water services contract won by SUEZ in India.

In **Davanagare**, SUEZ will be responsible for refurbishing, operating and ensuring maintenance of three drinking water production plants and the distribution system, and for building a new distribution network to replace the current one which has become obsolete.

using digital technology to reinvent urban cleaning services



📍 Marseilles, France

Aware of the importance of a city's image and attractiveness, and of user expectations concerning their living environment, SUEZ provides a new approach to urban cleaning based on both the perception of citizens and the implementation of innovative resources, particularly through the use of digital technology.

In **Marseilles**, SUEZ and Noé Concept have been working together since September 2017 to innovate in urban cleaning services and in the collection and sorting of the waste produced by the 65,000 inhabitants of the city's 1st and 2nd arrondissements.

The contract includes predictive management, traceability and real-time monitoring of collection rounds, and the assessment of service quality through a special app.

enhancing water and sanitation networks in Greater Algiers



📍 Algiers, Algeria

Local authorities have renewed their trust in SUEZ through a three-year extension of the contract for the management of water and sanitation services in the Greater Algiers area to ensure 24/7 access to drinking water for the city's 5 million inhabitants.

SUEZ will use its Aquadvanced® solutions to provide dynamic management of the drinking water networks, sanitation networks and borehole fields.

The contract also covers support for operators by improving their technical performance through a diagnosis of the maturity of professions in 6 Wilayas and by establishing the National School of Water and Sanitation Management and developing training programs that lead to qualifications.

over 185,000 days
of training provided since 2006

235,000 cubic meters
of polluted water treated a day

rehabilitating 400 hectares of lagoons



📍 Al Karaana, Qatar

Doha's urban and industrial development is causing increasing levels of soil pollution, making soil remediation and wastewater management key issues for Qatar.

SUEZ is supporting Qatar's project to rehabilitate its lagoons and remediate soil polluted by urban and industrial effluent. A thermal desorption unit was used to decontaminate the soil. This technology uses high temperatures to evaporate pollutants without generating odors or waste. The Group will also build new evaporation basins and three 70 ha lagoons to ensure sustainable land redevelopment.

Wastewater is managed at the largest plant built by SUEZ. The Group is working to ensure the region's environmental balance.

400 hectares

of lagoons located south-west of Doha will be reclaimed and rehabilitated to protect the region's environmental status

4 million tons

of soil remediated

280,000 cubic meters

of wastewater recycled a day

03

our solutions for industry:
improving economic
and environmental
performance

increasing competitiveness

SUEZ supports industries and businesses in the optimization of their economic performance. We help them secure production continuity and access to resources, improve operational efficiency, minimize risk and downstream impact and increase resource recovery and asset protection.

meeting regulations

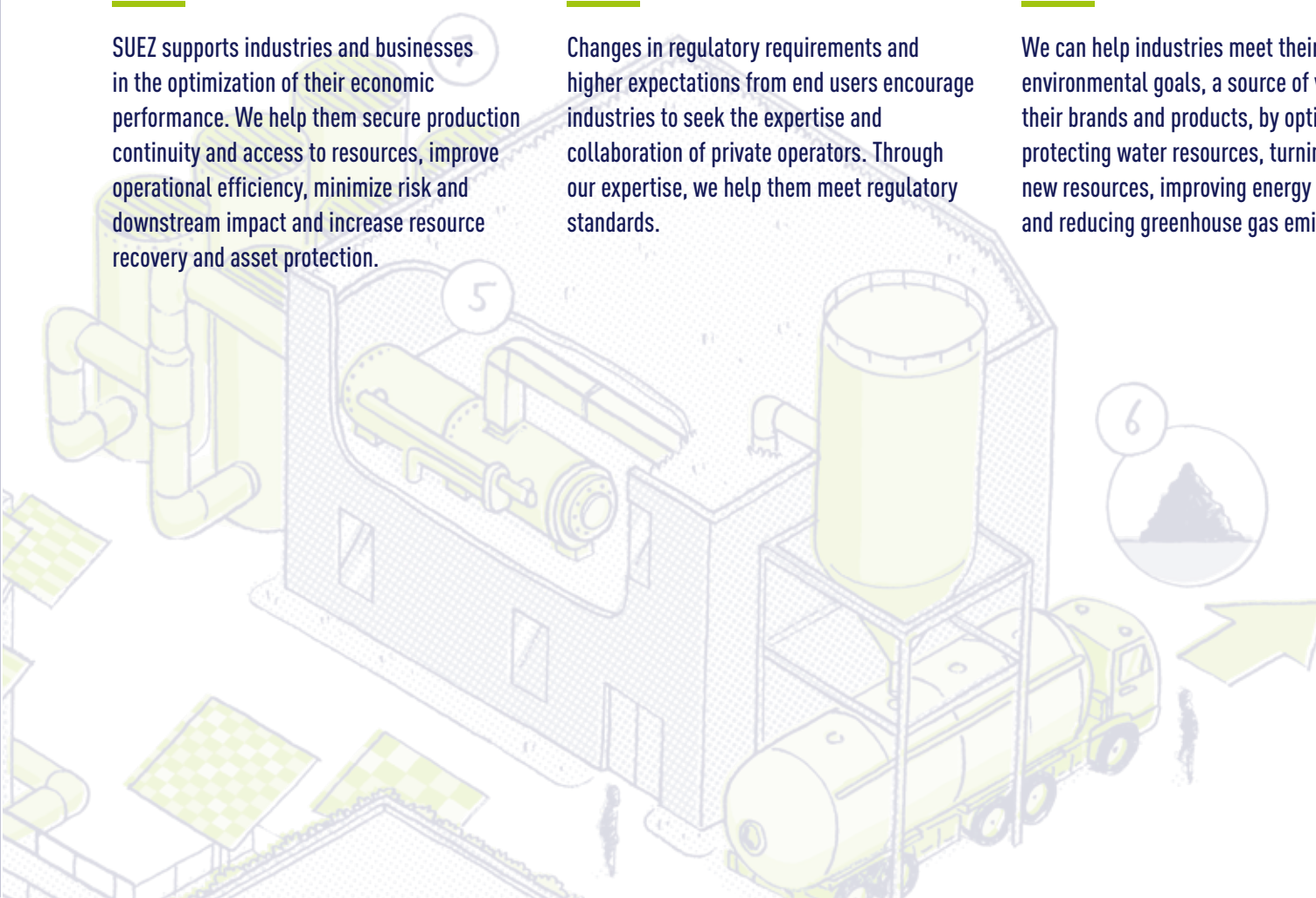
Changes in regulatory requirements and higher expectations from end users encourage industries to seek the expertise and collaboration of private operators. Through our expertise, we help them meet regulatory standards.

boosting brand equity through corporate social responsibility

We can help industries meet their environmental goals, a source of value for their brands and products, by optimizing and protecting water resources, turning waste into new resources, improving energy efficiency and reducing greenhouse gas emissions.

developing circular solutions

We help industries increase resource recovery, including energy, in order for them to turn their own waste streams into new and accessible resources.



producing sustainably



L'Oréal and SUEZ have committed to a global partnership with the aim of continuously improving their environmental performance and optimizing resource management.

SUEZ will help L'Oréal achieve its goals for 2020:

- **Protecting water resources** by producing recycled water, with the aim of reducing water consumption by 60% and attaining a positive water footprint.
- **Reducing waste production by 60%** and attaining 70% of material reused or recycled.
- **Improving energy efficiency** and reducing greenhouse gas emissions by 60%, improving the energy mix by boosting the use of renewable energy such as biogas.
- **Constantly identifying and sharing good practices** throughout the L'Oréal-SUEZ partnership, with environmental excellence as our goal.

L'Oréal has asked SUEZ to design and build two effluent treatment and recycled water production plants in Vichy and Caudry, followed by three years of operation and maintenance. SUEZ will also be responsible for managing waste at two of L'Oréal's European plants. SUEZ is also completing rehabilitation of a treatment plant near Mexico City, Mexico.

giving Nespresso capsules a new lease of life



Nespresso has decided to extend the recycling of its capsules to the Moroccan market where demand for waste treatment is accelerating. Due to its experience of recycling used coffee capsules in France, Nespresso called on SUEZ to improve the end-of-life of its coffee capsules on the Moroccan market.

- To simplify collection and encourage recycling, Nespresso's customers in Morocco's main cities (e.g. in hotels, cafes and restaurants, Nespresso club members) are offered free recyclable plastic bags in which to deposit their consumed capsules.
- The bags are then transported to the SUEZ recycling and recovery platform in Bouskoura where the coffee grounds are separated from the aluminium capsules for recovery.
- The organic matter of the coffee grounds is given to the association Terre et Humanisme which campaigns for a return to agro-ecological practices and the recovery of local resources. The coffee grounds are transformed into compost and fertilizers which are then used to improve soil quality.
- The aluminium is reinserted into the economy via recovery streams.



transforming cable waste into pure copper granules

RecyCâbles – Nexans

Recovering basic or complex cable waste requires leading-edge technological expertise. In 2008, SUEZ and Nexans established RecyCâbles, which quickly became the leading expert in cable and non-ferrous metal recycling in Europe.

Under the responsibility of SUEZ, RecyCâbles handles all types of cable, from collection and recovery of end-of-life cables to production waste.

Nexans has extended its partnership with SUEZ for the recovery of cables for a further three years, and has also added a substantial consulting service.

RecyCâbles employees now work with Nexans at the cable design phase to optimize end-of-service-life and adopt a circular economy approach from the very early stages.

The plant's treatment capacity will be extended by 7,000 tons a year through the creation of a second crushing line.

36,000 tons

of cables processed a year, enabling recovery of:

18,000 tons of metal granules

13,000 tons of plastic

99.9%

rate of purity of recycled copper granules

treating and recovering hazardous waste



Eni, a global player in the Oil & Gas industry, has asked SUEZ to provide its innovative solutions for the treatment and recovery of its hazardous waste in Europe.

SUEZ incinerates ENI's waste at its Pont-en-Claix and Roussillon plants in France, and at Schkopau treatment unit in Germany, but also deals with its Tenorm waste, which has low levels of natural radioactivity, from its upstream oil extraction activities at ENI plants in Italy. This relationship of trust has also been strengthened through the water and waste offer developed in partnership with WTS.

30,000 tons
of hazardous waste treated in 3 years

converting wastewater into new water resources



Co-op Refinery Complex

Federated Co-operatives Limited's Co-op Refinery Complex (CRC) has called SUEZ to help implement an expansion project focusing on sustainable development and environmental management.

By building and launching the system at CRC's wastewater treatment plant, the Group has helped create the first refinery in North America with the capability to reuse 100% of its wastewater on site.

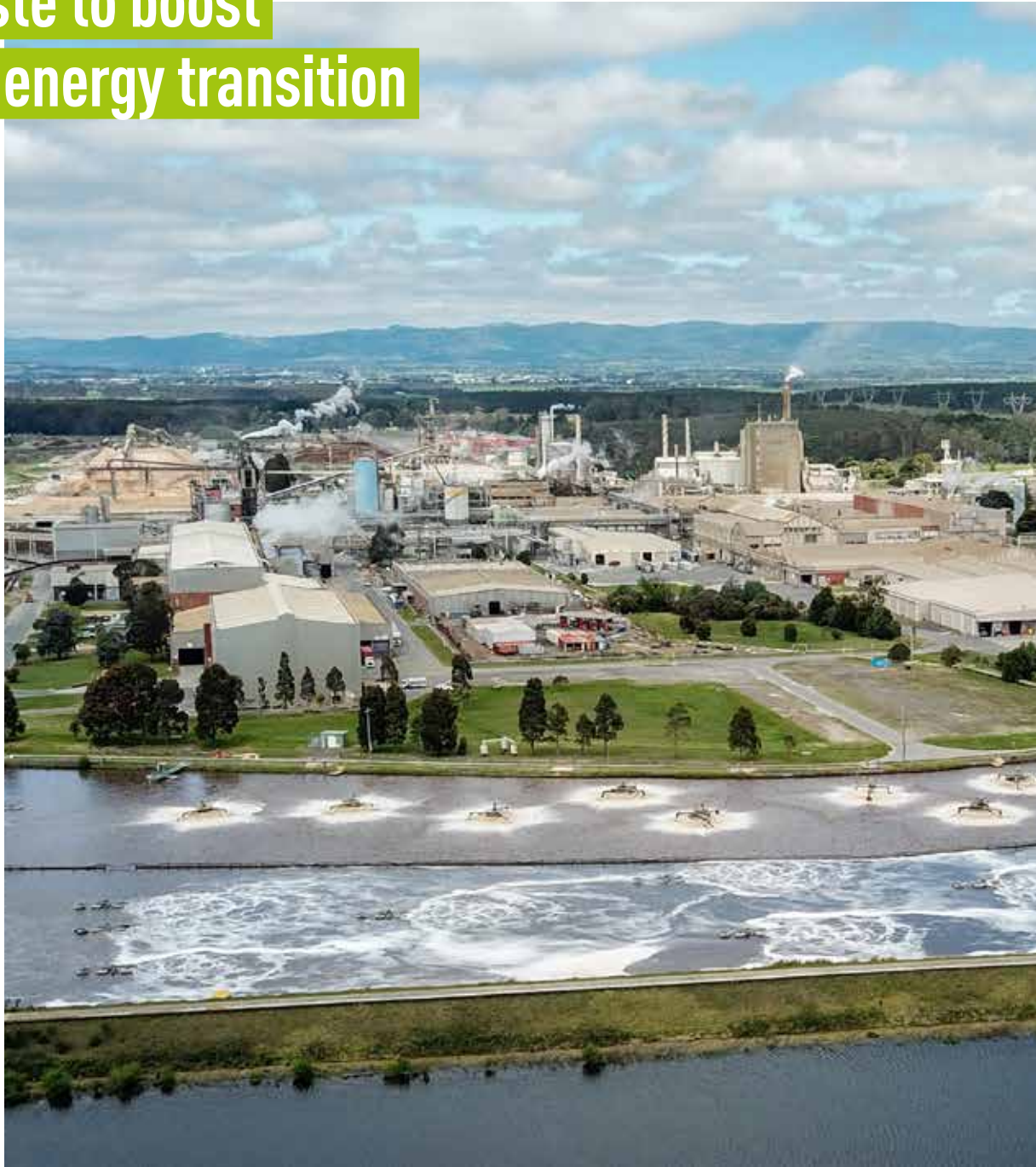
Treated effluent is now converted into steam used principally for heating processes.

SUEZ also supplies InSight software to optimize performance of water treatment facilities and monitor aging of ZeeWeed membrane modules. In 2017, CRC's Wastewater Improvement Project was named the Industrial Water Project of the Year by Global Water Intelligence. The award recognizes the most impressive technical or environmental achievement in the field of industrial water.

7,600 cubic meters
of wastewater reused a day

28%
quantity of freshwater saved by the refinery through
the Wastewater Improvement Project (WIP)

recovering waste to boost the energy transition



Australian Paper

Australian Paper and SUEZ have joined forces to build a waste-to-energy facility south-east of Melbourne. The aim is to solve problems caused by closure of landfill sites, safeguard employment and supply the Australian Paper plant with sustainable energy.

The feasibility study confirmed the social, economic, environmental and commercial feasibility of building the facility. Australian Paper and SUEZ will focus on the project's development phase to ensure long-term waste supply contracts. Conducted in close cooperation with local authorities, the project will support local employment and provide the missing link in Victoria's waste management infrastructure.

650,000 tons

of residual waste recovered

543,000 tons

of greenhouse gas emissions avoided

1,406 indirect jobs

created during construction and **900 jobs**
when the plant becomes operational

04

innovation
at the heart
of our business

Our innovative force must enable all our customers to enter the age of the resource revolution and to stay ahead of the game.

To achieve this goal, we innovate every day with our researchers and partners, for smart and sustainable resource management.

650

experts
and researchers
driving innovation

17

research centers
worldwide

3,921

national
patents

€120 million

invested in R&D
in 2018



open innovation, driving performance

SUEZ has adopted a structured Open Innovation policy to benefit from its partners' capacity for innovation to offer constantly better solutions to our customers.

an international network of partners

Academic partnerships: University of Bordeaux, University of Barcelona, CNRS, University of Tsinghua, Harbin Institute of Technology, etc.

International network: Water Supply and Sanitation Technology Platform, Climate-KIC, etc.

SUEZ Ventures: supporting the development of young innovative companies

SUEZ Ventures is the Group's investment fund. We work alongside promising young innovative companies as an investor and industry partner.

Hundreds of innovative start-ups detected each year

11 investment operations achieved in SMEs

In 2018, SUEZ took over the American-Australian start-up **Optimatics**, a world leader in software for water and wastewater network optimization. The Group enhanced its digital solutions and expanded its AQUADVANCED® range with a service to optimize the overall performance of hydraulic infrastructures throughout their lifecycle.

technological tests: accelerating time-to-market for innovative solutions

SUEZ adopts a partnership-based approach with third-party companies through technological tests. The aim is to test, under industrial conditions, the innovative solutions provided by partners that are start-ups, large groups or SMEs, thereby accelerating time-to-market.

€4 million invested annually

Among the tests carried out in 2018, several technological innovations were validated in fields that included paper recycling, robotics, cybersecurity and methanation.

digital technology for resource protection

Digital technology offers new opportunities to address the environmental challenges our customers face. SUEZ innovates to support them in this approach and boost the performance of their facilities. Here we focus on a few of our digital solutions.

AQUADVANCED® solutions

SUEZ developed the AQUADVANCED soft suite to digitalize and optimize the entire water cycle (drinking water, stormwater and wastewater).

The suite has other objectives, concerned with safety (e.g. forecasting natural events), regulatory compliance and the environment (e.g. protecting the natural environment) and economic and budgetary issues (e.g. rationalizing operating costs and investments).

To achieve these objectives, the suite is made up of four solutions that use data science to exploit the data transmitted by smart sensors installed at facilities:

- **AQUADVANCED® Networks**
- **AQUADVANCED® Energy**
- **AQUADVANCED® Well Watch**
- **AQUADVANCED® Sanitation**

the Prairie Institute, a center of excellence dedicated to artificial intelligence

CNRS, Inria and PSL University, together with Amazon, Criteo, Facebook, Faurecia, Google, Microsoft, NAVER LABS, Nokia Bell Labs, PSA Group, SUEZ and Valeo are joining forces to create in Paris the PRAIRIE Institute, with a five-year goal to bring together scientific and industrial leaders in Artificial Intelligence and make the PRAIRIE Institute a world leader in the field.

05

SUEZ,
a group committed
to people
and the planet

Sustainable development and environmental protection are at the heart of SUEZ strategy. The Group is increasingly present in international extra-financial indexes and its work is recognized by the United Nations.

1st
in the waste and water
utilities sector



3rd
in the utilities sector
world ranking



2018 Climate A-List ranking and
CDP Supplier Engagement Leader



Silver Class distinction
by RobecoSAM



UN Global Compact LEAD
company for implementation
of Sustainable Development
Goals on a worldwide scale



Our Sustainable Development Roadmap for 2017-2021

Every five years, SUEZ commits to a new Sustainable Development Roadmap. The new 2017-2021 roadmap was designed following widespread internal and external consultation with over 5,000 stakeholders.

Several types of tool were used to construct the roadmap, including carrying out materiality analysis and advisory panels among employees, individual shareholders and external stakeholders.

The 2017-2021 Sustainable Development Roadmap:

- is both a driver for change within the Group and a management tool: made up of 17 measurable commitments with specific deadlines, it comes with action plans to meet these goals by 2021;
- helps achieve the sustainable development goals defined by the United Nations in 2015.



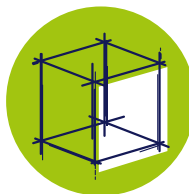
PRIORITY 1

Be a collaborative, open and responsible company



PRIORITY 2

Be a leader in the circular and low-carbon economy



PRIORITY 3

Support our customers' environmental transition with concrete solutions



PRIORITY 4

Contribute to the common good

some of our quantified objectives and results

2021 objective: Achieving a level of 33% of management positions filled by women companywide

2018 result: 27.6% of women in management

2021 objective: Helping our customers avoid more than 60 million tons of greenhouse gas emissions

2018 result: 10 million tons total emissions avoided

2021 objective: Increasing the number of connected objects by 20%

2018 result: 4.1 million smart water meters installed

2021 objective: Doubling the volume of recycled plastics

2018 result: 525 kt of plastic recycled

2021 objective: Constantly maintaining air emissions under the levels required by local regulations

2018 result: NOx: 660 mg/ton

SOx: 51 mg/ton

Mercury: 0.0656 mg/ton

2021 objective: Developing sustainable access to essential services under the terms of our contracts in developing countries

2018 result: 28.7 million people



The SUEZ Foundation supports concrete actions to sustainably develop access to essential services (water, sanitation and waste) for underprivileged populations in developing countries. The Foundation also works to promote integration through employment and training, and social cohesion through education, culture and sport.

The work of the SUEZ Foundation contributes to the achievement of the United Nations' Sustainable Development Goals.

8-year
commitment

58
NGOs & partners

over 5.5 million inhabitants
in developing countries directly concerned by its projects

over 3,340 people
in France concerned by employment and training inclusion programs

over 12,700 young people
and their families supported through education, culture and sport

€32 million
over eight years

433
projects supported
(including Aquassistance projects)



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